



PROJECT MANUAL

FOR

**MASONRY SERVICES – NEW INSTALLATION, RENOVATIONS,
AND/OR REPAIRS**

AT VARIOUS LOCATIONS DISTRICT WIDE

PARKWAY BID NUMBER 25-211

PREPARED BY

**Parkway Facilities Department
363 North Woods Mill Road
Chesterfield, MO 63017**

**DATED
MAY 14, 2025**

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**SECTION 001100
INVITATION TO BID**

THE FACILITIES DEPARTMENT OF THE PARKWAY SCHOOL DISTRICT INVITES YOU TO BID ON THE FOLLOWING PROJECT:

1.01 PROJECT BID NUMBER 25-211 - MASONRY SERVICES FY24-25 AT VARIOUS LOCATIONS DISTRICT WIDE

1.02 BIDS ARE TO BE ELECTRONICALLY SUBMITTED TO:

- A. Vendors must submit their responses electronically via Bonfire:
- B. <https://parkwayschools.bonfirehub.com/>
- C. Any response not received via Bonfire before the response Submission Deadline will not be considered. Each vendor is solely responsible for ensuring that their response is acknowledged and confirmed. Responses will receive a Bonfire email confirmation upon receipt.
- D. All bids shall be considered valid for acceptance until such time an award is made unless the vendor provides for a different time period within its bid response. However, the District reserves the right to reject a bid if the Vendor's response is unacceptable and the Vendor is unwilling to extend the validity of its proposal.
- E. The District reserves the right to purchase any quantities of bid without altering the unit purchase price upon award.

1.03 BIDS WILL BE RECEIVED ON OR BEFORE:

- A. Wednesday, May 28, 2025, at 2:00 p.m. CDT

1.04 ALL BIDS WILL BE PUBLICLY OPENED ON THE AFOREMENTIONED DATE AT THE SPECIFIED TIME AND PLACE.

- A. Bids may not be withdrawn for at least sixty (60) days after the closing date for receipt of Bids.
- B. All Bids must be fully completed Bids by a Prime Contractor who shall have responsibility for all portions of the Work.
- C. Individual Bids by separate Contractors for separate portions of the Work will not be accepted.

1.05 THE OWNER FOR THE PROJECT IS:

- A. Parkway School District
455 North Woods Mill Road
Chesterfield, Missouri 63017

1.06 THE OWNER'S REPRESENTATIVE FOR THE PROJECT IS:

- A. John Blanton
Manager of Planning and Engineering
Parkway School District
363 North Woods Mill Road
Chesterfield, Missouri 63017
Telephone: (314) 415-8289; Fax: (314) 415-8269
E-mail: jblanton@parkwayschools.net

- 1.07 NOTE: BIDDERS SHALL DIRECT ALL QUESTIONS AND CLARIFICATIONS TO THE OWNER'S REPRESENTATIVE.**
- 1.08 COPIES OF THE BIDDING DOCUMENTS MAY BE OBTAINED FROM 8:00 A.M. TO 5:00 P.M., MONDAY THROUGH FRIDAY COMMENCING ON MONDAY, APRIL 14, 2025, AT 12:00 P.M. CDT, THROUGH DOCUMENT IMAGING SYSTEMS, INC., 1463 SOUTH VANDEVENTER AVENUE, ST. LOUIS, MISSOURI, 63110 (TELEPHONE NUMBER 314-531-0167).**
- A. The bid package can be viewed and ordered 24/7 through their website at <https://parkwayschools.bonfirehub.com/portal/?tab=openOpportunities>.
 - 1. Click on "Open Public Opportunities" tab at top of page.
 - 2. Click on "View Opportunity" for "Ref #25-211".
 - B. The bid package is available for purchase and there will be no deposit or refund.
- 1.09 BIDDING DOCUMENTS ARE ON FILE AT:**
- A. McGraw Hill Construction Dodge/AGC, 6330 Knox Industrial Drive, St. Louis, Missouri 63139
 - B. AGC Internet Plan Room, www.agcmo.org, click on the ePlan link
 - C. CMD Insight Internet Plan Room, www.insight.reedconstructiondata.com
 - D. Construction Software Technologies, Inc iSqFt Plan Room, www.isqft.com
- 1.10 AN EXECUTED CONTRACTOR'S QUALIFICATION STATEMENT, AIA DOCUMENT A305 INCLUDING A QUARTERLY OR ANNUAL FINANCIAL STATEMENT NOT OVER 12 MONTHS OLD MUST BE DELIVERED PRIOR TO OR WITH THE BIDDER'S BID IN ORDER FOR THE BID TO BE ACCEPTED.**
- A. Financial statements will be returned to the Bidder upon request received prior to the Notice To Proceed Date.
 - B. All financial statements not requested to be returned shall be shredded and disposed of following the Notice To Proceed Date.
- 1.11 IT IS ANTICIPATED THAT THE SUCCESSFUL BIDDER WILL BE GIVEN NOTICE TO PROCEED ON JUNE 12, 2025 WITH SUBSTANTIAL COMPLETION TO OCCUR ON OR BEFORE JUNE 12, 2028.**
- A. The Bidder will be allowed to order equipment, materials, and supplies as necessary upon entering into the Agreement Between Owner and Contractor.
- 1.12 IT IS ANTICIPATED THAT THIS AGREEMENT WILL BE PRESENTED TO THE SUCCESSFUL BIDDER FOR SIGNATURE ON JUNE 12, 2025.**
- 1.13 PAYMENTS WILL BE MADE BY THE OWNER WITHIN APPROXIMATELY TEN (10) BUSINESS DAYS, BUT NOT LATER THAN THIRTY (30) CALENDAR DAYS AFTER RECEIPT OF AN APPLICATION AND CERTIFICATE FOR PAYMENT WHICH RECEIVES APPROVAL.**
- 1.14 NOT LESS THAN THE PREVAILING HOURLY RATES OF WAGES FOR WORK OF A SIMILAR CHARACTER IN THE LOCALITY IN WHICH THE WORK IS PERFORMED, ALL AS MORE FULLY SET OUT IN THE DETAILED SPECIFICATIONS FOR THIS PROJECT, SHALL BE PAID TO ALL WORKERS EMPLOYED ON SAID PROJECT.**
- 1.15 CONTRACTOR AND SUBCONTRACTORS SHALL PROVIDE A OCCUPATIONAL SAFETY AND HEALTH (OSHA) TEN-HOUR CONSTRUCTION SAFETY AND HEALTH PROGRAM FOR THEIR ON-SITE EMPLOYEES WHICH INCLUDES A COURSE IN CONSTRUCTION SAFETY AND HEALTH APPROVED BY OSHA OR A SMILAR PROGRAM APPROVED BY THE MISSOURI DEPATMENT OF LABOR WHICH IS AT LEAST AS STRINGENT AS AN APPROVED OSHA PROGRAM, UNLESS SUCH EMPLOYEES HAVE PREVIOUSLY COMPLETED THE REQUIRED PROGRAM.**

END OF INVITATION TO BID

**SECTION 002113
INSTRUCTIONS TO BIDDERS**

FORM OF INSTRUCTIONS TO BIDDERS

- 1.01 SEE AIA DOCUMENT A701 (2018 EDITION), INSTRUCTIONS TO BIDDERS FOLLOWING THIS DOCUMENT .**
- 1.02 THE INSTRUCTIONS IN THIS DOCUMENT AMEND OR SUPPLEMENT THE INSTRUCTIONS TO BIDDERS AND OTHER PROVISIONS OF THE BIDDING AND CONTRACT DOCUMENTS.**

END OF SECTION

AIA® Document A701® – 2018

Instructions to Bidders

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

2025 - Masonry Services – District Wide at Various Locations
Bid No. 25-211

THE OWNER:
(Name, legal status, address, and other information)

Parkway School Districts
455 North Wood Mill Road
Chesterfield, Missouri 63017
Telephone Number: 314-415-8100

THE ARCHITECT:
(Name, legal status, address, and other information)

N/A

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ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

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

FEDERAL, STATE, AND LOCAL LAWS MAY IMPOSE REQUIREMENTS ON PUBLIC PROCUREMENT CONTRACTS. CONSULT LOCAL AUTHORITIES OR AN ATTORNEY TO VERIFY REQUIREMENTS APPLICABLE TO THIS PROCUREMENT BEFORE COMPLETING THIS FORM.

It is intended that AIA Document G612™–2017, Owner's Instructions to the Architect, Parts A and B will be completed prior to using this document.

ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the Proposed Contract Documents. The Bidding Requirements consist of the advertisement or invitation to bid, Instructions to Bidders, supplementary instructions to bidders, the bid form, and any other bidding forms. The Proposed Contract Documents consist of the unexecuted form of Agreement between the Owner and Contractor and that Agreement's Exhibits, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, all Addenda, and all other documents enumerated in Article 8 of these Instructions.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, or in other Proposed Contract Documents apply to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Architect, which, by additions, deletions, clarifications, or corrections, modify or interpret the Bidding Documents.

§ 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents, to which Work may be added or deleted by sums stated in Alternate Bids.

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from, or that does not change, the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment, or labor for a portion of the Work.

ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 By submitting a Bid, the Bidder represents that:

- .1 the Bidder has read and understands the Bidding Documents;
- .2 the Bidder understands how the Bidding Documents relate to other portions of the Project, if any, being bid concurrently or presently under construction;
- .3 the Bid complies with the Bidding Documents;
- .4 the Bidder has visited the site, become familiar with local conditions under which the Work is to be performed, and has correlated the Bidder's observations with the requirements of the Proposed Contract Documents;
- .5 the Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception; and
- .6 the Bidder has read and understands the provisions for liquidated damages, if any, set forth in the form of Agreement between the Owner and Contractor.

ARTICLE 3 BIDDING DOCUMENTS

§ 3.1 Distribution

§ 3.1.1 Bidders shall obtain complete Bidding Documents, as indicated below, from the issuing office designated in the advertisement or invitation to bid, for the deposit sum, if any, stated therein.

(Indicate how, such as by email, website, host site/platform, paper copy, or other method Bidders shall obtain Bidding Documents.)

§ 3.1.2 Any required deposit shall be refunded to Bidders who submit a bona fide Bid and return the paper Bidding Documents in good condition within ten days after receipt of Bids. The cost to replace missing or damaged paper documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the paper Bidding Documents, and the Bidder's deposit will be refunded.

§ 3.1.3 Bidding Documents will not be issued directly to Sub-bidders unless specifically offered in the advertisement or invitation to bid, or in supplementary instructions to bidders.

§ 3.1.4 Bidders shall use complete Bidding Documents in preparing Bids. Neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete Bidding Documents.

§ 3.1.5 The Bidding Documents will be available for the sole purpose of obtaining Bids on the Work. No license or grant of use is conferred by distribution of the Bidding Documents.

§ 3.2 Modification or Interpretation of Bidding Documents

§ 3.2.1 The Bidder shall carefully study the Bidding Documents, shall examine the site and local conditions, and shall notify the Architect of errors, inconsistencies, or ambiguities discovered and request clarification or interpretation pursuant to Section 3.2.2.

§ 3.2.2 Requests for clarification or interpretation of the Bidding Documents shall be submitted by the Bidder in writing and shall be received by the Architect at least seven days prior to the date for receipt of Bids.
(Indicate how, such as by email, website, host site/platform, paper copy, or other method Bidders shall submit requests for clarification and interpretation.)

§ 3.2.3 Modifications and interpretations of the Bidding Documents shall be made by Addendum. Modifications and interpretations of the Bidding Documents made in any other manner shall not be binding, and Bidders shall not rely upon them.

§ 3.3 Substitutions

§ 3.3.1 The materials, products, and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution.

§ 3.3.2 Substitution Process

§ 3.3.2.1 Written requests for substitutions shall be received by the Architect at least ten days prior to the date for receipt of Bids. Requests shall be submitted in the same manner as that established for submitting clarifications and interpretations in Section 3.2.2.

§ 3.3.2.2 Bidders shall submit substitution requests on a Substitution Request Form if one is provided in the Bidding Documents.

§ 3.3.2.3 If a Substitution Request Form is not provided, requests shall include (1) the name of the material or equipment specified in the Bidding Documents; (2) the reason for the requested substitution; (3) a complete description of the proposed substitution including the name of the material or equipment proposed as the substitute, performance and test data, and relevant drawings; and (4) any other information necessary for an evaluation. The request shall include a statement setting forth changes in other materials, equipment, or other portions of the Work, including changes in the work of other contracts or the impact on any Project Certifications (such as LEED), that will result from incorporation of the proposed substitution.

§ 3.3.3 The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.4 If the Architect approves a proposed substitution prior to receipt of Bids, such approval shall be set forth in an Addendum. Approvals made in any other manner shall not be binding, and Bidders shall not rely upon them.

§ 3.3.5 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

§ 3.4 Addenda

§ 3.4.1 Addenda will be transmitted to Bidders known by the issuing office to have received complete Bidding Documents.

(Indicate how, such as by email, website, host site/platform, paper copy, or other method Addenda will be transmitted.)

§ 3.4.2 Addenda will be available where Bidding Documents are on file.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids, except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Prior to submitting a Bid, each Bidder shall ascertain that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

ARTICLE 4 BIDDING PROCEDURES

§ 4.1 Preparation of Bids

§ 4.1.1 Bids shall be submitted on the forms included with or identified in the Bidding Documents.

§ 4.1.2 All blanks on the bid form shall be legibly executed. Paper bid forms shall be executed in a non-erasable medium.

§ 4.1.3 Sums shall be expressed in both words and numbers, unless noted otherwise on the bid form. In case of discrepancy, the amount entered in words shall govern.

§ 4.1.4 Edits to entries made on paper bid forms must be initialed by the signer of the Bid.

§ 4.1.5 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change" or as required by the bid form.

§ 4.1.6 Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall neither make additional stipulations on the bid form nor qualify the Bid in any other manner.

§ 4.1.7 Each copy of the Bid shall state the legal name and legal status of the Bidder. As part of the documentation submitted with the Bid, the Bidder shall provide evidence of its legal authority to perform the Work in the jurisdiction where the Project is located. Each copy of the Bid shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further name the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached, certifying the agent's authority to bind the Bidder.

§ 4.1.8 A Bidder shall incur all costs associated with the preparation of its Bid.

§ 4.2 Bid Security

§ 4.2.1 Each Bid shall be accompanied by the following bid security:

(Insert the form and amount of bid security.)

§ 4.2.2 The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and shall, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. In the event the Owner fails to comply with Section 6.2, the amount of the bid security shall not be forfeited to the Owner.

§ 4.2.3 If a surety bond is required as bid security, it shall be written on AIA Document A310™, Bid Bond, unless otherwise provided in the Bidding Documents. The attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of an acceptable power of attorney. The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 4.2.4 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until (a) the Contract has been executed and bonds, if required, have been furnished; (b) the specified time has elapsed so that Bids may be withdrawn; or (c) all Bids have been rejected. However, if no Contract has been awarded or a Bidder has not been notified of the acceptance of its Bid, a Bidder may, beginning days after the opening of Bids, withdraw its Bid and request the return of its bid security.

§ 4.3 Submission of Bids

§ 4.3.1 A Bidder shall submit its Bid as indicated below:

(Indicate how, such as by website, host site/platform, paper copy, or other method Bidders shall submit their Bid.)

§ 4.3.2 Paper copies of the Bid, the bid security, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address, and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

§ 4.3.3 Bids shall be submitted by the date and time and at the place indicated in the invitation to bid. Bids submitted after the date and time for receipt of Bids, or at an incorrect place, will not be accepted.

§ 4.3.4 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

§ 4.3.5 A Bid submitted by any method other than as provided in this Section 4.3 will not be accepted.

§ 4.4 Modification or Withdrawal of Bid

§ 4.4.1 Prior to the date and time designated for receipt of Bids, a Bidder may submit a new Bid to replace a Bid previously submitted, or withdraw its Bid entirely, by notice to the party designated to receive the Bids. Such notice shall be received and duly recorded by the receiving party on or before the date and time set for receipt of Bids. The receiving party shall verify that replaced or withdrawn Bids are removed from the other submitted Bids and not considered. Notice of submission of a replacement Bid or withdrawal of a Bid shall be worded so as not to reveal the amount of the original Bid.

§ 4.4.2 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids in the same format as that established in Section 4.3, provided they fully conform with these Instructions to Bidders. Bid security shall be in an amount sufficient for the Bid as resubmitted.

§ 4.4.3 After the date and time designated for receipt of Bids, a Bidder who discovers that it made a clerical error in its Bid shall notify the Architect of such error within two days, or pursuant to a timeframe specified by the law of the jurisdiction where the Project is located, requesting withdrawal of its Bid. Upon providing evidence of such error to the reasonable satisfaction of the Architect, the Bid shall be withdrawn and not resubmitted. If a Bid is withdrawn pursuant to this Section 4.4.3, the bid security will be attended to as follows:

(State the terms and conditions, such as Bid rank, for returning or retaining the bid security.)

ARTICLE 5 CONSIDERATION OF BIDS

§ 5.1 Opening of Bids

If stipulated in an advertisement or invitation to bid, or when otherwise required by law, Bids properly identified and received within the specified time limits will be publicly opened and read aloud. A summary of the Bids may be made available to Bidders.

§ 5.2 Rejection of Bids

Unless otherwise prohibited by law, the Owner shall have the right to reject any or all Bids.

§ 5.3 Acceptance of Bid (Award)

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest responsive and responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents. Unless otherwise prohibited by law, the Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's best interests.

§ 5.3.2 Unless otherwise prohibited by law, the Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the lowest responsive and responsible Bidder on the basis of the sum of the Base Bid and Alternates accepted.

ARTICLE 6 POST-BID INFORMATION

§ 6.1 Contractor's Qualification Statement

Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request and within the timeframe specified by the Architect, a properly executed AIA Document A305™, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted for this Bid.

§ 6.2 Owner's Financial Capability

A Bidder to whom award of a Contract is under consideration may request in writing, fourteen days prior to the expiration of the time for withdrawal of Bids, that the Owner furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. The Owner shall then furnish such reasonable evidence to the Bidder no later than seven days prior to the expiration of the time for withdrawal of Bids. Unless such reasonable evidence is furnished within the allotted time, the Bidder will not be required to execute the Agreement between the Owner and Contractor.

§ 6.3 Submittals

§ 6.3.1 After notification of selection for the award of the Contract, the Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, submit in writing to the Owner through the Architect:

- .1** a designation of the Work to be performed with the Bidder's own forces;
- .2** names of the principal products and systems proposed for the Work and the manufacturers and suppliers of each; and
- .3** names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

§ 6.3.2 The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

§ 6.3.3 Prior to the execution of the Contract, the Architect will notify the Bidder if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, withdraw the Bid or submit an acceptable substitute person or entity. The Bidder may also submit any required adjustment in the Base Bid or Alternate Bid to account for the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

§ 6.3.4 Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND

§ 7.1 Bond Requirements

§ 7.1.1 If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder.

§ 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

§ 7.1.3 The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 7.1.4 Unless otherwise indicated below, the Penal Sum of the Payment and Performance Bonds shall be the amount of the Contract Sum.

(If Payment or Performance Bonds are to be in an amount other than 100% of the Contract Sum, indicate the dollar amount or percentage of the Contract Sum.)

§ 7.2 Time of Delivery and Form of Bonds

§ 7.2.1 The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to commence sooner in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

§ 7.2.2 Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond.

§ 7.2.3 The bonds shall be dated on or after the date of the Contract.

§ 7.2.4 The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix to the bond a certified and current copy of the power of attorney.

ARTICLE 8 ENUMERATION OF THE PROPOSED CONTRACT DOCUMENTS

§ 8.1 Copies of the proposed Contract Documents have been made available to the Bidder and consist of the following documents:

.1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor, unless otherwise stated below.
(Insert the complete AIA Document number, including year, and Document title.)

.2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds, unless otherwise stated below.
(Insert the complete AIA Document number, including year, and Document title.)

.3 AIA Document A201™–2017, General Conditions of the Contract for Construction, unless otherwise stated below.
(Insert the complete AIA Document number, including year, and Document title.)

.4 Building Information Modeling Exhibit, if completed:

.5 Drawings

Number	Title	Date
--------	-------	------

.6 Specifications

Section	Title	Date	Pages
---------	-------	------	-------

.7 Addenda:

Number	Date	Pages
--------	------	-------

.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.)

☐ **The Sustainability Plan:**

Title	Date	Pages
-------	------	-------

☐ **Supplementary and other Conditions of the Contract:**

Document	Title	Date	Pages
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.9 Other documents listed below:

(List here any additional documents that are intended to form part of the Proposed Contract Documents.)

**SECTION 004000
PROCUREMENT FORMS AND SUPPLEMENTS**

PART 1 GENERAL

**1.01 CONTRACTOR IS RESPONSIBLE FOR OBTAINING A VALID LICENSE TO USE ALL
COPYRIGHTED DOCUMENTS SPECIFIED BUT NOT INCLUDED IN THE PROJECT MANUAL.**

1.02 FORMS

- A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in the procurement requirements.
- B. Instructions to Bidders: AIA A701.
- C. Substitution Request Form (During Procurement): Bidder's Discretion.
- D. Bid Form: Section 004100 - Bid Form.
- E. Procurement Form Supplements:
- F. Representations and Certifications:
 - 1. Bidder's Qualifications: AIA A305.
 - a. Form AIA A305 is attached at end of Section 006000.

1.03 REFERENCE STANDARDS

- A. AIA A305 - Contractor's Qualification Statement.
- B. AIA A701 - Instructions to Bidders; 2018.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 004100
BID FORM**

THE PROJECT AND THE PARTIES

1.01 TO:

- A. Parkway School District (Owner)
363 North Woods Mill Road
Chesterfield Missouri 63017

1.02 FOR:

- A. The project Project Bid Number 25-211 - Masonry Services FY24-25 at VARIOUS LOCATIONS DISTRICT WIDE
B. Bid Number 25-211

1.03 DATE: _____ (BIDDER TO ENTER DATE)

1.04 SUBMITTED BY: (BIDDER TO ENTER COMPANY NAME, ADDRESS, AND CONTACT INFORMATION)

- A. Bidder's Full Name: _____

1. Address: _____

2. City, State, Zip: _____

3. Telephone Number: _____

4. FAX Number: _____

5. E-mail Address: _____

1.05 ACKNOWLEDGEMENTS:

- A. We acknowledge:
1. Examination of the site and all Bidding Documents and familiarity with the conditions pertaining to the site of the work and the requirements of the Bidding Documents as they pertain to the work has been made.
 2. Responsibility for performing all the work required of the Bidding Documents.
 3. Understanding that the Owner may reserve the right to reject any or all bids and to waive any informalities in the bidding.
 4. understanding that by submitting a bid the representations in Article 2 of the Instructions to Bidders have been made.

1.06 OFFER

- A. Having examined the Place of The Work and all matters referred to in the Instructions to Bidders and the Contract Documents prepared by Architect and Owner for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Unit Prices listed in this bid form.
- B. All applicable federal taxes are included and State of Missouri taxes are included in the Bid Unit Prices.

1.07 ACCEPTANCE

- A. This offer shall be open to acceptance and is irrevocable for forty-five days from the bid closing date.
- B. If this bid is accepted by Owner within the time period stated above, we will:

1. Execute the Agreement in the form available to Contractor as part of the Bidding Documents without further modifications within seven days of receipt of Notice of Award.
2. Furnish the required bonds within seven days of receipt of Notice of Award.
3. Commence work within three days after written Notice to Proceed of this bid.

1.08 CONTRACT TIME

- A. If this Bid is accepted, we will:

Substantially complete the Work by the date indicated in each Work Order.

1.09 ADDENDA

- A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.

1. Addendum # _____ Dated _____.
2. Addendum # _____ Dated _____.
3. Addendum # _____ Dated _____.
4. Addendum # _____ Dated _____.

1.10 BID FORM SUPPLEMENTS

- A. The following Supplements are attached to this Bid Form and are considered an integral part of this Bid Form:

1. Document 004322 - Unit Prices Form: Include a listing of unit prices specifically requested by Contract Documents.

1.11 BID FORM SIGNATURE(S)

- A. _____
(Bidder - print the full name of your Proprietorship, Partnership, or Corporation)

- B. _____
(Authorized signing officer, Title)

- C. _____
(Typed or printed name of authorized signing officer)

1.12 IF THE BID IS A JOINT VENTURE OR PARTNERSHIP, ADD ADDITIONAL FORMS OF EXECUTION FOR EACH MEMBER OF THE JOINT VENTURE IN THE APPROPRIATE FORM OR FORMS AS ABOVE.

END OF SECTION

**SECTION 004301
BID FORM SUPPLEMENTS COVER SHEET**

PARTICULARS

1.01 TO (OWNER): PARKWAY SCHOOL DISTRICT

363 North Woods Mill Road
Chesterfield, Missouri 63017

1.02 BID NUMBER 23-211

1.03 PROJECT NUMBER: PROJECT BID NUMBER 25-211

1.04 PROJECT NAME: MASONRY SERVICES FY24-25

1.05 PROJECT LOCATION: VARIOUS LOCATIONS DISTRICT WIDE

1.06 DATE: _____

1.07 SUBMITTED BY: (BIDDER TO INSERT FULL COMPANY NAME AND ADDRESS)

- A. _____
- B. _____
- C. _____
- D. _____

E. In accordance with Section 002113 - Instructions to Bidders and Section 004100 - Bid Form - , we include the Supplements To Bid Form listed below. The information provided shall be considered an integral part of the Bid Form.

1.08 SUPPLEMENTS TO BID FORM

- A. Section 004322 - Unit Prices Form

SIGNATURE(S)

2.01 _____
(BIDDER - PRINT THE FULL NAME OF YOUR PROPRIETORSHIP, PARTNERSHIP, OR CORPORATION)

2.02 _____
(AUTHORIZED SIGNING OFFICER, TITLE)

2.03 _____
(TYPED OR PRINTED NAME OF AUTHORIZED SIGNING OFFICER)

END OF SECTION

**SECTION 004322
UNIT PRICES FORM**

PARTICULARS

1.01 THE FOLLOWING IS THE LIST OF UNIT PRICES REFERENCED IN THE BID:

- A. SUBMITTED BY:
(Bidder Name) _____
- B. TO (Owner): Parkway School District
363 North Woods Mill Road
Chesterfield, Missouri 63017
- C. Dated _____ (Bidder to enter date), which is an integral part of the Bid Form.

1.02 THE FOLLOWING ARE UNIT PRICES FOR SPECIFIC PORTIONS OF THE WORK AS LISTED, AND ARE APPLICABLE TO AUTHORIZED VARIATIONS FROM THE CONTRACT DOCUMENTS.

- A. Quantities indicated below are for bid evaluation purposes only.
- B. The unit quantity will be multiplied by the unit price and the product added to the base bid and any accepted alternate bids to determine the low bidder.
- C. Actual quantities supplied or placed in the Work shall determine actual adjustment to the Contract Sum.

1.03 UNIT PRICE LIST:

A. FIRST YEAR BID

1. Labor Categories:

- a. Project Manager
 - 1) Regular time per hour at \$ _____
 - 2) Overtime per hour \$ _____
- b. Foreman Bricklayer-Stonemason
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- c. Journeyman Bricklayer-Stonemason
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- d. Apprentice Bricklayer-Stonemason
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- e. Journeyman Laborer
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- f. Apprentice Laborer
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- g. Clerical
 - 1) Regular time per hour at \$ _____
 - 2) Overtime per hour at \$ _____

2. Additional Charges:

- a. Additional charges, as listed below, shall be invoiced separately from labor rates. List all additional charges, if any, including mileage, contractor owned equipment charges (must be itemized), large equipment rental that is normally required to perform the work, service truck charges, and other expense charges. Do not include charges for hand tools, small power tools, ladders, small test equipment, or any other tool or equipment that is normal and customary to perform the Work as these costs shall be included in the labor rates as part of Bidder's overhead. If additional charges are not mentioned in this bid, the Owner will assume costs are included in the hourly rates and material mark-up percentage and will not assume responsibility for payment. If more space is required attach additional sheets, signed and dated, itemizing additional charges with description and rates.

b. Description - Charge:

- 1) Bond Costs in dollars per \$100,000 coverage \$ _____
- 2) Scaffold (per day per section) _____ \$ _____
- 3) Scaffold (per week per section) _____ \$ _____
- 4) 1 person lift (per day) _____ \$ _____
- 5) 1 person lift (per week) _____ \$ _____
- 6) 2 person lift (per day) _____ \$ _____
- 7) 2 person lift (per week) _____ \$ _____
- 8) _____ \$ _____
- 9) _____ \$ _____
- 10) _____ \$ _____
- 11) _____ \$ _____
- 12) _____ \$ _____
- 13) _____ \$ _____
- 14) _____ \$ _____
- 15) _____ \$ _____

3. Mark-ups:

- a. Rental Equipment: The Contractor's mark-up for overhead and profit for rental equipment not itemized in Additional Charges will be _____ percent.
- b. Material: The Contractor mark-up for delivery, overhead and profit on material supplied by the Contractor will be _____ percent of the material invoice.
 - 1) Note that Contractor must be willing to use District supplied material or purchase from a District supplier.
- c. Subcontractor: NO subcontractor mark-up is allowed. All unit prices should be adjusted accordingly to include Contractor's mark-ups on work to be subcontracted.

B. POSSIBLE RENEWAL - SECOND YEAR BID

1. Labor Categories:

- a. Project Manager
 - 1) Regular time per hour at \$ _____
 - 2) Overtime per hour \$ _____
- b. Foreman Bricklayer-Stonemason
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- c. Journeyman Bricklayer-Stonemason
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- d. Apprentice Bricklayer-Stonemason
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____

- e. Journeyman Laborer
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- f. Apprentice Laborer
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- g. Clerical
 - 1) Regular time per hour at \$ _____
 - 2) Overtime per hour at \$ _____
2. Additional Charges:
 - a. Additional charges, as listed below, shall be invoiced separately from labor rates. List all additional charges, if any, including mileage, contractor owned equipment charges (must be itemized), large equipment rental that is normally required to perform the work, service truck charges, and other expense charges. Do not include charges for hand tools, small power tools, ladders, small test equipment, or any other tool or equipment that is normal and customary to perform the Work as these costs shall be included in the labor rates as part of Bidder's overhead. If additional charges are not mentioned in this bid, the Owner will assume costs are included in the hourly rates and material mark-up percentage and will not assume responsibility for payment. If more space is required attach additional sheets, signed and dated, itemizing additional charges with description and rates.
 - b. Description - Charge:
 - 1) Bond Costs in dollars per \$100,000 coverage \$ _____
 - 2) Scaffold (per day per section) _____ \$ _____
 - 3) Scaffold (per week per section) _____ \$ _____
 - 4) 1 person lift (per day) _____ \$ _____
 - 5) 1 person lift (per week) _____ \$ _____
 - 6) 2 person lift (per day) _____ \$ _____
 - 7) 2 person lift (per week) _____ \$ _____
 - 8) _____ \$ _____
 - 9) _____ \$ _____
 - 10) _____ \$ _____
 - 11) _____ \$ _____
 - 12) _____ \$ _____
 - 13) _____ \$ _____
 - 14) _____ \$ _____
 - 15) _____ \$ _____
3. Mark-ups:
 - a. Rental Equipment: The Contractor's mark-up for overhead and profit for rental equipment not itemized in Additional Charges will be _____ percent.
 - b. Material: The Contractor mark-up for delivery, overhead and profit on material supplied by the Contractor will be _____ percent of the material invoice.
 - 1) Note that Contractor must be willing to use District supplied material or purchase from a District supplier.
 - c. Subcontractor: NO subcontractor mark-up is allowed. All unit prices should be adjusted accordingly to include Contractor's mark-ups on work to be subcontracted.

C. POSSIBLE RENEWAL - THIRD YEAR BID

1. Labor Categories:
 - a. Project Manager
 - 1) Regular time per hour at \$ _____
 - 2) Overtime per hour \$ _____

- b. Foreman Bricklayer-Stonemason
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- c. Journeyman Bricklayer-Stonemason
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- d. Apprentice Bricklayer-Stonemason
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- e. Journeyman Laborer
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- f. Apprentice Laborer
 - 1) Regular time per hour at \$ _____
 - 2) Time and one half per hour at \$ _____
 - 3) Double time per hour at \$ _____
- g. Clerical
 - 1) Regular time per hour at \$ _____
 - 2) Overtime per hour at \$ _____
2. Additional Charges:
 - a. Additional charges, as listed below, shall be invoiced separately from labor rates. List all additional charges, if any, including mileage, contractor owned equipment charges (must be itemized), large equipment rental that is normally required to perform the work, service truck charges, and other expense charges. Do not include charges for hand tools, small power tools, ladders, small test equipment, or any other tool or equipment that is normal and customary to perform the Work as these costs shall be included in the labor rates as part of Bidder's overhead. If additional charges are not mentioned in this bid, the Owner will assume costs are included in the hourly rates and material mark-up percentage and will not assume responsibility for payment. If more space is required attach additional sheets, signed and dated, itemizing additional charges with description and rates.
 - b. Description - Charge:

1) Bond Costs in dollars per \$100,000 coverage	\$ _____
2) Scaffold (per day per section)	\$ _____
3) Scaffold (per week per section)	\$ _____
4) 1 person lift (per day)	\$ _____
5) 1 person lift (per week)	\$ _____
6) 2 person lift (per day)	\$ _____
7) 2 person lift (per week)	\$ _____
8) _____	\$ _____
9) _____	\$ _____
10) _____	\$ _____
11) _____	\$ _____
12) _____	\$ _____
13) _____	\$ _____
14) _____	\$ _____
15) _____	\$ _____
3. Mark-ups:

- a. Rental Equipment: The Contractor's mark-up for overhead and profit for rental equipment not itemized in Additional Charges will be _____ percent.
- b. Material: The Contractor mark-up for delivery, overhead and profit on material supplied by the Contractor will be _____percent of the material invoice.
 - 1) Note that Contractor must be willing to use District supplied material or purchase from a District supplier.
- c. Subcontractor: NO subcontractor mark-up is allowed. All unit prices should be adjusted accordingly to include Contractor's mark-ups on work to be subcontracted.

END OF SECTION

**SECTION 005000
CONTRACTING FORMS AND SUPPLEMENTS**

PART 1 GENERAL

**1.01 CONTRACTOR IS RESPONSIBLE FOR OBTAINING A VALID LICENSE TO USE ALL
COPYRIGHTED DOCUMENTS SPECIFIED BUT NOT INCLUDED IN THE PROJECT MANUAL.**

1.02 AGREEMENT AND CONDITIONS OF THE CONTRACT

- A. See Section 005200 - Agreement Form for the Agreement and General Conditions.
- B. The Agreement is based on AIA A102.
- C. The Building Information Modeling and Digital Data Exhibit attachment to the Agreement is based on AIA E203.
- D. The General Conditions are based on AIA A201.

1.03 FORMS

- A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in Contract Documents.
- B. See Section 006000 - Project Forms for forms specifically required following.
- C. Bond Forms:
 - 1. Bid Bond Form: AIA A310.
 - 2. Performance and Payment Bond Form: AIA A312.
- D. Post-Award Certificates and Other Forms:
 - 1. Submittal Transmittal Form: Owner's electronic document management system form.
 - 2. Certificate of Insurance Form: ACORD Certificate of Insurance 25.
 - 3. Schedule of Values Form: Owner's standard form.
 - 4. Application for Payment Form: Owner's standard form.
 - 5. Sales Tax Exemption Form: State of Missouri standard form.
 - 6. Consent of Surety to Reduction of Retainage Form: Surety's standard form.
 - 7. Stored Material Form: Contractor's discretion.
- E. Clarification and Modification Forms:
 - 1. Request for Information Form: Owner's electronic document management system form.
 - 2. Substitution Request Form (During Construction): Owner's electronic document management system form.
 - 3. Written Amendment Form: Owner's standard form.
 - 4. Construction Change Directive Form: Owner's electronic document management system form.
 - 5. Request for Proposal Form: Owner's Service Contractor Not-To-Exceed Proposal form.
 - 6. Proposal Worksheet Summary Form: Contractor's discretion.
 - 7. Proposal Worksheet Detail Form: Contractor's discretion.
 - 8. Claim Request Form: Owner's electronic document management system form.
 - 9. Change Order Form: Owner's electronic document management system form.
- F. Closeout Forms:
 - 1. Certificate of Substantial Completion Form: Owner's electronic document management system form.
 - 2. Affidavit of Release of Liens Form: Contractor's discretion.
 - 3. Affidavit of Compliance With the Prevailing Wage Law: State of Missouri standard form.
 - 4. OSHA 10-Hour Construction Safety Training Log: Owner's standard form.
 - 5. Consent of Surety to Final Payment Form: Surety's standard form.

1.04 REFERENCE STANDARDS

- A. AIA A102 - Standard Form of Agreement Between Owner and Contractor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price.

- B. AIA A201 - General Conditions of the Contract for Construction.
- C. AIA A305 - Contractor's Qualification Statement.
- D. AIA A310 - Bid Bond.
- E. AIA A312 - Performance Bond and Payment Bond.
- F. AIA E203 - Building Information Modeling and Digital Data Exhibit; 2013.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 005200
AGREEMENT FORM**

PART 1 GENERAL

1.01 FORM OF AGREEMENT

- A. The Agreement to be executed and Exhibit are attached at the end of this document.
- B. Section 014216 - Definitions.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

DRAFT AIA® Document A102® – 2017

Standard Form of Agreement Between Owner and Contractor

where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price

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)

Parkway School District
455 North Woods Mill Road
Chesterfield, Missouri 63017
Telephone Number: 314-415-8100

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

« »« »
« »
« »
« »

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

2025 Masonry Services – Various Locations District Wide
Bid No. 25-211

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

N/A

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS:

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

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

The parties should complete A102™-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.

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

TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 RELATIONSHIP OF THE PARTIES
- 4 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 5 CONTRACT SUM
- 6 CHANGES IN THE WORK
- 7 COSTS TO BE REIMBURSED
- 8 COSTS NOT TO BE REIMBURSED
- 9 DISCOUNTS, REBATES AND REFUNDS
- 10 SUBCONTRACTS AND OTHER AGREEMENTS
- 11 ACCOUNTING RECORDS
- 12 PAYMENTS
- 13 DISPUTE RESOLUTION
- 14 TERMINATION OR SUSPENSION
- 15 MISCELLANEOUS PROVISIONS
- 16 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. If anything in the other Contract Documents, other than a Modification, is inconsistent with this Agreement, this Agreement shall govern. An enumeration of the Contract Documents, other than a Modification, appears in Article 16.

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 RELATIONSHIP OF THE PARTIES

The Contractor accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Contractor's skill and judgment in furthering the interests of the Owner; to furnish efficient business administration and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests. The Owner agrees to furnish and approve, in a timely manner, information required by the Contractor and to make payments to the Contractor in accordance with the requirements of the Contract Documents.

ARTICLE 4 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 4.1 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.)

As may be described in each Work Order or the date of the Work Order if not described.

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

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

§ 4.3 Substantial Completion

§ 4.3.1 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.)

- [☐] Not later than (☐) calendar days from the date of commencement of the Work.
- [☐] By the following date:

§ 4.3.2 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
<i>Each Work Order</i>	<i>As described in each Work Order</i>

§ 4.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 4.3, liquidated damages, if any, shall be assessed as set forth in Section 5.1.6.

ARTICLE 5 CONTRACT SUM

§ 5.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum ***for each Work Order*** is the Cost of the Work ***for each Work Order*** as defined in Article 7.

§ 5.1.1 The Contractor's Fee:

(State a lump sum, percentage of Cost of the Work, or other provision for determining the Contractor's Fee.)

« »

§ 5.1.2 The method of adjustment of the Contractor's Fee for changes in the Work:

« »

§ 5.1.3 Limitations, if any, on a Subcontractor's overhead and profit for increases in the cost of its portion of the Work:

« »

§ 5.1.4 Rental rates for Contractor-owned equipment shall not exceed « » percent (« » %) of the standard rental rate paid at the place of the Project.

§ 5.1.5 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)

§ 5.1.6 Liquidated damages, if any:

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

« »

§ 5.1.7 Other:

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

« »

§ 5.2 Guaranteed Maximum Price

§ 5.2.1 The Contract Sum is guaranteed by the Contractor not to exceed « » (\$ « »), subject to additions and deductions by Change Order as provided in the Contract Documents. This maximum sum is referred to in the Contract Documents as the Guaranteed Maximum Price. Costs which would cause the Guaranteed Maximum Price to be exceeded shall be paid by the Contractor without reimbursement by the Owner.

§ 5.2.2 Alternates

§ 5.2.2.1 Alternates, if any, included in the Guaranteed Maximum Price:

Item	Price
Not Applicable	

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

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

Item	Price	Conditions for Acceptance
Not Applicable		

§ 5.2.3 Allowances, if any, included in the Guaranteed Maximum Price:

(Identify each allowance.)

Item	Price
Not Applicable	

§ 5.2.4 Assumptions, if any, upon which the Guaranteed Maximum Price *for each Work Order* is based:

(Identify each assumption.)

Shall be described by the Contractor on the Work Order Not-to-Exceed proposal form provided by the Owner.

§ 5.2.5 To the extent that the Contract Documents are anticipated to require further development, the Guaranteed Maximum Price includes the costs attributable to such further development consistent with the Contract Documents and reasonably inferable therefrom. Such further development does not include changes in scope, systems, kinds and quality of materials, finishes or equipment, all of which, if required, shall be incorporated by Change Order.

§ 5.2.6 The Owner shall authorize preparation of revisions to the Contract Documents that incorporate the agreed-upon assumptions contained in Section 5.2.4. The Owner shall promptly furnish such revised Contract Documents to

the Contractor. The Contractor shall notify the Owner and Architect of any inconsistencies between the agreed-upon assumptions contained in Section 5.2.4 and the revised Contract Documents.

ARTICLE 6 CHANGES IN THE WORK

§ 6.1 Adjustments to the Guaranteed Maximum Price on account of changes in the Work may be determined by any of the methods listed in Article 7 of AIA Document A201™–2017, General Conditions of the Contract for Construction.

§ 6.2 Adjustments to subcontracts awarded on the basis of a stipulated sum shall be determined in accordance with Article 7 of A201–2017, as they refer to “cost” and “fee,” and not by Articles 5, 7 and 8 of this Agreement. Adjustments to subcontracts awarded with the Owner’s prior written consent on the basis of cost plus a fee shall be calculated in accordance with the terms of those subcontracts.

§ 6.3 In calculating adjustments to the Guaranteed Maximum Price, the terms “cost” and “costs” as used in Article 7 of AIA Document A201–2017 shall mean the Cost of the Work as defined in Article 7 of this Agreement and the term “fee” shall mean the Contractor’s Fee as defined in Section 5.1.1 of this Agreement.

§ 6.4 If no specific provision is made in Article 5 for adjustment of the Contractor’s Fee in the case of changes in the Work, or if the extent of such changes is such, in the aggregate, that application of the adjustment provisions of Article 5 will cause substantial inequity to the Owner or Contractor, the Contractor’s Fee shall be equitably adjusted on the same basis that was used to establish the Fee for the original Work, and the Guaranteed Maximum Price shall be adjusted accordingly.

ARTICLE 7 COSTS TO BE REIMBURSED

§ 7.1 Cost of the Work

§ 7.1.1 The term Cost of the Work shall mean costs necessarily incurred by the Contractor in the proper performance of the Work. The Cost of the Work shall include only the items set forth in this Article 7.

§ 7.1.2 Where, pursuant to the Contract Documents, any cost is subject to the Owner’s prior approval, the Contractor shall obtain such approval in writing prior to incurring the cost.

§ 7.1.3 Costs shall be at rates not higher than the standard paid at the place of the Project, except with prior approval of the Owner.

§ 7.2 Labor Costs

§ 7.2.1 Wages or salaries of construction workers directly employed by the Contractor to perform the construction of the Work at the site or, with the Owner’s prior approval, at off-site workshops.

§ 7.2.2 Wages or salaries of the Contractor’s supervisory and administrative personnel when stationed at the site and performing Work, with the Owner’s prior approval.

§ 7.2.2.1 Wages or salaries of the Contractor’s supervisory and administrative personnel when performing Work and stationed at a location other than the site, but only for that portion of time required for the Work, and limited to the personnel and activities listed below:

(Identify the personnel, type of activity and, if applicable, any agreed upon percentage of time to be devoted to the Work.)

§ 7.2.3 Wages or salaries of the Contractor’s supervisory or administrative personnel engaged at factories, workshops or while traveling, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of their time required for the Work.

§ 7.2.4 Costs paid or incurred by the Contractor, as required by law or collective bargaining agreements, for taxes, insurance, contributions, assessments, and benefits and, for personnel not covered by collective bargaining agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Sections 7.2.1 through 7.2.3.

§ 7.2.5 If agreed rates for labor costs, in lieu of actual costs, are provided in this Agreement, the rates shall remain unchanged throughout the duration of this Agreement, unless the parties execute a Modification.

§ 7.3 Subcontract Costs

Payments made by the Contractor to Subcontractors in accordance with the requirements of the subcontracts and this Agreement.

§ 7.4 Costs of Materials and Equipment Incorporated in the Completed Construction

§ 7.4.1 Costs, including transportation and storage at the site, of materials and equipment incorporated, or to be incorporated, in the completed construction.

§ 7.4.2 Costs of materials described in the preceding Section 7.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, if any, shall become the Owner's property at the completion of the Work or, at the Owner's option, shall be sold by the Contractor. Any amounts realized from such sales shall be credited to the Owner as a deduction from the Cost of the Work.

§ 7.5 Costs of Other Materials and Equipment, Temporary Facilities and Related Items

§ 7.5.1 Costs of transportation, storage, installation, dismantling, maintenance, and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Contractor at the site and fully consumed in the performance of the Work. Costs of materials, supplies, temporary facilities, machinery, equipment, and tools, that are not fully consumed, shall be based on the cost or value of the item at the time it is first used on the Project site less the value of the item when it is no longer used at the Project site. Costs for items not fully consumed by the Contractor shall mean fair market value.

§ 7.5.2 Rental charges for temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by the Contractor at the site, and the costs of transportation, installation, dismantling, minor repairs, and removal of such temporary facilities, machinery, equipment, and hand tools. Rates and quantities of equipment owned by the Contractor, or a related party as defined in Section 7.8, shall be subject to the Owner's prior approval. The total rental cost of any such equipment may not exceed the purchase price of any comparable item.

§ 7.5.3 Costs of removal of debris from the site of the Work and its proper and legal disposal.

§ 7.5.4 Costs of the Contractor's site office, including general office equipment and supplies.

§ 7.5.5 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, subject to the Owner's prior approval.

§ 7.6 Miscellaneous Costs

§ 7.6.1 Premiums for that portion of insurance and bonds required by the Contract Documents that can be directly attributed to this Contract.

§ 7.6.1.1 Costs for self-insurance, for either full or partial amounts of the coverages required by the Contract Documents, with the Owner's prior approval.

§ 7.6.1.2 Costs for insurance through a captive insurer owned or controlled by the Contractor, with the Owner's prior approval.

§ 7.6.2 Sales, use, or similar taxes, imposed by a governmental authority, that are related to the Work and for which the Contractor is liable.

§ 7.6.3 Fees and assessments for the building permit, and for other permits, licenses, and inspections, for which the Contractor is required by the Contract Documents to pay.

§ 7.6.4 Fees of laboratories for tests required by the Contract Documents; except those related to defective or nonconforming Work for which reimbursement is excluded under Article 13 of AIA Document A201-2017 or by other provisions of the Contract Documents, and which do not fall within the scope of Section 7.7.3.

§ 7.6.5 Royalties and license fees paid for the use of a particular design, process, or product, required by the Contract Documents.

§ 7.6.5.1 The cost of defending suits or claims for infringement of patent rights arising from requirements of the Contract Documents, payments made in accordance with legal judgments against the Contractor resulting from such suits or claims, and payments of settlements made with the Owner's consent, unless the Contractor had reason to believe that the required design, process or product was an infringement of a copyright or a patent, and the Contractor failed to promptly furnish such information to the Architect as required by Article 3 of AIA Document A201–2017. The costs of legal defenses, judgments, and settlements, shall not be included in the Cost of the Work used to calculate the Contractor's Fee or subject to the Guaranteed Maximum Price.

§ 7.6.6 Costs for communications services, electronic equipment, and software, directly related to the Work and located at the site, with the Owner's prior approval.

§ 7.6.7 Costs of document reproductions and delivery charges.

§ 7.6.8 Deposits lost for causes other than the Contractor's negligence or failure to fulfill a specific responsibility in the Contract Documents.

§ 7.6.9 Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between the Owner and Contractor, reasonably incurred by the Contractor after the execution of this Agreement in the performance of the Work and with the Owner's prior approval, which shall not be unreasonably withheld.

§ 7.6.10 Expenses incurred in accordance with the Contractor's standard written personnel policy for relocation and temporary living allowances of the Contractor's personnel required for the Work, with the Owner's prior approval.

§ 7.6.11 That portion of the reasonable expenses of the Contractor's supervisory or administrative personnel incurred while traveling in discharge of duties connected with the Work.

§ 7.7 Other Costs and Emergencies

§ 7.7.1 Other costs incurred in the performance of the Work, with the Owner's prior approval.

§ 7.7.2 Costs incurred in taking action to prevent threatened damage, injury, or loss, in case of an emergency affecting the safety of persons and property, as provided in Article 10 of AIA Document A201–2017.

§ 7.7.3 Costs of repairing or correcting damaged or nonconforming Work executed by the Contractor, Subcontractors, or suppliers, provided that such damaged or nonconforming Work was not caused by the negligence of, or failure to fulfill a specific responsibility by, the Contractor, and only to the extent that the cost of repair or correction is not recovered by the Contractor from insurance, sureties, Subcontractors, suppliers, or others.

§ 7.8 Related Party Transactions

§ 7.8.1 For purposes of this Section 7.8, the term "related party" shall mean (1) a parent, subsidiary, affiliate, or other entity having common ownership of, or sharing common management with, the Contractor; (2) any entity in which any stockholder in, or management employee of, the Contractor holds an equity interest in excess of ten percent in the aggregate; (3) any entity which has the right to control the business or affairs of the Contractor; or (4) any person, or any member of the immediate family of any person, who has the right to control the business or affairs of the Contractor.

§ 7.8.2 If any of the costs to be reimbursed arise from a transaction between the Contractor and a related party, the Contractor shall notify the Owner of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If the Owner, after such notification, authorizes the proposed transaction in writing, then the cost incurred shall be included as a cost to be reimbursed, and the Contractor shall procure the Work, equipment, goods, or service, from the related party, as a Subcontractor, according to the terms of Article 10. If the Owner fails to authorize the transaction in writing, the Contractor shall procure the Work, equipment, goods, or service from some person or entity other than a related party according to the terms of Article 10.

ARTICLE 8 COSTS NOT TO BE REIMBURSED

§ 8.1 The Cost of the Work shall not include the items listed below:

- .1 Salaries and other compensation of the Contractor's personnel stationed at the Contractor's principal office or offices other than the site office, except as specifically provided in Section 7.2, or as may be provided in Article 15;
- .2 Bonuses, profit sharing, incentive compensation, and any other discretionary payments, paid to anyone hired by the Contractor or paid to any Subcontractor or vendor, unless the Owner has provided prior approval;
- .3 Expenses of the Contractor's principal office and offices other than the site office;
- .4 Overhead and general expenses, except as may be expressly included in Article 7;
- .5 The Contractor's capital expenses, including interest on the Contractor's capital employed for the Work;
- .6 Except as provided in Section 7.7.3 of this Agreement, costs due to the negligence of, or failure to fulfill a specific responsibility of the Contract by, the Contractor, Subcontractors, and suppliers, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable;
- .7 Any cost not specifically and expressly described in Article 7; and
- .8 Costs, other than costs included in Change Orders approved by the Owner, that would cause the Guaranteed Maximum Price to be exceeded.

ARTICLE 9 DISCOUNTS, REBATES AND REFUNDS

§ 9.1 Cash discounts obtained on payments made by the Contractor shall accrue to the Owner if (1) before making the payment, the Contractor included the amount to be paid, less such discount, in an Application for Payment and received payment from the Owner, or (2) the Owner has deposited funds with the Contractor with which to make payments; otherwise, cash discounts shall accrue to the Contractor. Trade discounts, rebates, refunds, and amounts received from sales of surplus materials and equipment shall accrue to the Owner, and the Contractor shall make provisions so that they can be obtained.

§ 9.2 Amounts that accrue to the Owner in accordance with the provisions of Section 9.1 shall be credited to the Owner as a deduction from the Cost of the Work.

ARTICLE 10 SUBCONTRACTS AND OTHER AGREEMENTS

§ 10.1 Those portions of the Work that the Contractor does not customarily perform with the Contractor's own personnel shall be performed under subcontracts or other appropriate agreements with the Contractor. The Owner may designate specific persons from whom, or entities from which, the Contractor shall obtain bids. The Contractor shall obtain bids from Subcontractors, and from suppliers of materials or equipment fabricated especially for the Work, who are qualified to perform that portion of the Work in accordance with the requirements of the Contract Documents. The Contractor shall deliver such bids to the Architect and Owner with an indication as to which bids the Contractor intends to accept. The Owner then has the right to review the Contractor's list of proposed subcontractors and suppliers in consultation with the Architect and, subject to Section 10.1.1, to object to any subcontractor or supplier. Any advice of the Architect, or approval or objection by the Owner, shall not relieve the Contractor of its responsibility to perform the Work in accordance with the Contract Documents. The Contractor shall not be required to contract with anyone to whom the Contractor has reasonable objection.

§ 10.1.1 When a specific subcontractor or supplier (1) is recommended to the Owner by the Contractor; (2) is qualified to perform that portion of the Work; and (3) has submitted a bid that conforms to the requirements of the Contract Documents without reservations or exceptions, but the Owner requires that another bid be accepted, then the Contractor may require that a Change Order be issued to adjust the Guaranteed Maximum Price by the difference between the bid of the person or entity recommended to the Owner by the Contractor and the amount of the subcontract or other agreement actually signed with the person or entity designated by the Owner.

§ 10.2 Subcontracts or other agreements shall conform to the applicable payment provisions of this Agreement, and shall not be awarded on the basis of cost plus a fee without the Owner's prior written approval. If a subcontract is awarded on the basis of cost plus a fee, the Contractor shall provide in the subcontract for the Owner to receive the same audit rights with regard to the Subcontractor as the Owner receives with regard to the Contractor in Article 11.

ARTICLE 11 ACCOUNTING RECORDS

The Contractor shall keep full and detailed records and accounts related to the Cost of the Work, and exercise such controls, as may be necessary for proper financial management under this Contract and to substantiate all costs incurred. The accounting and control systems shall be satisfactory to the Owner. The Owner and the Owner's auditors shall, during regular business hours and upon reasonable notice, be afforded access to, and shall be permitted to audit and copy, the Contractor's records and accounts, including complete documentation supporting accounting entries, books, job cost reports, correspondence, instructions, drawings, receipts, subcontracts, Subcontractor's proposals, Subcontractor's invoices, purchase orders, vouchers, memoranda, and other data relating to this Contract. The Contractor shall preserve these records for a period of three years after final payment, or for such longer period as may be required by law.

ARTICLE 12 PAYMENTS

§ 12.1 Progress Payments

§ 12.1.1 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.

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

Every two weeks ending on a Friday.

§ 12.1.3 Provided that an Application for Payment is received by the **Owner** not later than the **n/a** day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the **n/a** day of the **n/a** 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 **thirty (30)** days after the Architect receives the Application for Payment.

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

§ 12.1.4 With each Application for Payment, the Contractor shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner or Architect to demonstrate that payments already made by the Contractor on account of the Cost of the Work equal or exceed progress payments already received by the Contractor plus payrolls for the period covered by the present Application for Payment, less that portion of the progress payments attributable to the Contractor's Fee; **plus (3) certified payroll reports for the period covered by the resent Application for Payment.**

§ 12.1.5 Each Application for Payment shall **if requested by the Owner** 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 Guaranteed Maximum Price among: (1) the various portions of the Work; (2) any contingency for costs that are included in the Guaranteed Maximum Price but not otherwise allocated to another line item or included in a Change Order; and (3) the Contractor's Fee.

§ 12.1.5.1 The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. The schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 12.1.5.2 The allocation of the Guaranteed Maximum Price under this Section 12.1.5 shall not constitute a separate guaranteed maximum price for the Cost of the Work of each individual line item in the schedule of values.

§ 12.1.5.3 When the Contractor allocates costs from a contingency to another line item in the schedule of values, the Contractor shall submit supporting documentation to the Architect.

§ 12.1.6 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. The percentage of completion shall be the lesser of (1) the percentage of that portion of the Work which has actually been completed; or (2) the percentage obtained by dividing (a) the expense that has actually been incurred by the Contractor on account of that portion of the Work and

for which the Contractor has made payment or intends to make payment prior to the next Application for Payment, by (b) the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values.

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

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

- .1 That portion of the Guaranteed Maximum Price properly allocable to completed Work as determined by multiplying the percentage of completion of each portion of the Work by the share of the Guaranteed Maximum Price allocated to that portion of the Work in the most recent schedule of values;
- .2 That portion of the Guaranteed Maximum Price properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction or, if approved in writing in advance by the Owner, suitably stored off the site at a location agreed upon in writing;
- .3 That portion of Construction Change Directives that the **Owner** determines, in the Owner's professional judgment, to be reasonably justified; and
- .4 The Contractor's Fee, computed upon the Cost of the Work described in the preceding Sections 12.1.7.1.1 and 12.1.7.1.2 at the rate stated in Section 5.1.1 or, if the Contractor's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum fee as the Cost of the Work included in Sections 12.1.7.1.1 and 12.1.7.1.2 bears to a reasonable estimate of the probable Cost of the Work upon its completion.

§ 12.1.7.2 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;
- .5 The shortfall, if any, indicated by the Contractor in the documentation required by Section 12.1.4 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the Owner's auditors in such documentation; and
- .6 Retainage withheld pursuant to Section 12.1.8.

§ 12.1.8 Retainage

§ 12.1.8.1 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.)

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§ 12.1.8.1.1 The following items are not subject to retainage:

(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

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§ 12.1.8.2 Reduction or limitation of retainage, if any, shall be as follows:

(If the retainage established in Section 12.1.8.1 is to be modified prior to Substantial Completion of the entire Work, insert provisions for such modification.)

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§ 12.1.8.3 Except as set forth in this Section 12.1.8.3, 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 12.1.8. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:

(Insert any other conditions for release of retainage, such as upon completion of the Owner's audit and reconciliation, upon Substantial Completion.)

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§ 12.1.9 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.

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

§ 12.1.11 The Owner and the Contractor shall agree upon a mutually acceptable procedure for review and approval of payments to Subcontractors, and the percentage of retainage held on Subcontracts, and the Contractor shall execute subcontracts in accordance with those agreements.

§ 12.1.12 In taking action on the Contractor's Applications for Payment the Architect shall be entitled to rely on the accuracy and completeness of the information furnished by the Contractor, and such action shall not be deemed to be a representation that (1) the Architect has made a detailed examination, audit, or arithmetic verification, of the documentation submitted in accordance with Section 12.1.4 or other supporting data; (2) that the Architect has made exhaustive or continuous on-site inspections; or (3) that the Architect has made examinations to ascertain how or for what purposes the Contractor has used amounts previously paid on account of the Contract. Such examinations, audits, and verifications, if required by the Owner, will be performed by the Owner's auditors acting in the sole interest of the Owner.

§ 12.2 Final Payment

§ 12.2.1 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;
- .2 the Contractor has submitted a final accounting for the Cost of the Work and a final Application for Payment; and
- .3 *close out documents required by the Work Order have been delivered to Owner.*

§ 12.2.2 Within 30 days of the Owner's receipt of the Contractor's final accounting for the Cost of the Work, the Owner shall conduct an audit of the Cost of the Work or notify the Architect that it will not conduct an audit.

§ 12.2.2.1 If the Owner conducts an audit of the Cost of the Work, the Owner shall, within 10 days after completion of the audit, submit a written report based upon the auditors' findings to the Architect.

§ 12.2.2.2 Within seven days after receipt of the written report described in Section 12.2.2.1, or receipt of notice that the Owner will not conduct an audit, and provided that the other conditions of Section 12.2.1 have been met, the **Owner** will either issue a final Certificate for Payment with a copy to the Contractor, or notify the Contractor in writing of the **Owner's** reasons for withholding a certificate as provided in Article 9 of AIA Document A201–2017. The time periods stated in this Section 12.2.2 supersede those stated in Article 9 of AIA Document A201–2017. The **Owner** is not responsible for verifying the accuracy of the Contractor's final accounting.

§ 12.2.2.3 If the Owner's auditors' report concludes that the Cost of the Work, as substantiated by the Contractor's final accounting, is less than claimed by the Contractor, the Contractor shall be entitled to request mediation of the disputed amount without seeking an initial decision pursuant to Article 15 of AIA Document A201–2017. A request for mediation shall be made by the Contractor within 30 days after the Contractor's receipt of a copy of the **Owner's** final Certificate for Payment. Failure to request mediation within this 30-day period shall result in the substantiated

amount reported by the Owner's auditors becoming binding on the Contractor. Pending a final resolution of the disputed amount, the Owner shall pay the Contractor the amount certified in the final Certificate for Payment.

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

Completion of the Work Order, delivery of received close out documents, and receipt of final Application for Payment for each Work Order.

§ 12.2.4 If, subsequent to final payment, and at the Owner's request, the Contractor incurs costs, described in Article 7 and not excluded by Article 8, to correct defective or nonconforming Work, the Owner shall reimburse the Contractor for such costs, and the Contractor's Fee applicable thereto, on the same basis as if such costs had been incurred prior to final payment, but not in excess of the Guaranteed Maximum Price. If adjustments to the Contract Sum are provided for in Section 5.1.7, the amount of those adjustments shall be recalculated, taking into account any reimbursements made pursuant to this Section 12.2.4 in determining the net amount to be paid by the Owner to the Contractor.

§ 12.3 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.)

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ARTICLE 13 DISPUTE RESOLUTION

§ 13.1 Initial Decision Maker

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

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

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§ 13.2 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.)

Litigation in the Circuit Court of St. Louis County in Missouri.

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 14 TERMINATION OR SUSPENSION

§ 14.1 Termination

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

§ 14.1.2 Termination by the Owner for Cause

§ 14.1.2.1 If the Owner terminates the Contract for cause as provided in Article 14 of AIA Document A201-2017, the amount, if any, to be paid to the Contractor under Article 14 of AIA Document A201-2017 shall not cause the Guaranteed Maximum Price to be exceeded, nor shall it exceed an amount calculated as follows:

- .1 Take the Cost of the Work incurred by the Contractor to the date of termination;
- .2 *Not Used*
- .3 Subtract the aggregate of previous payments made by the Owner; and
- .4 *Not Used*

§ 14.1.2.2 The Owner shall also pay the Contractor fair compensation, either by purchase or rental at the election of the Owner, for any equipment owned by the Contractor that the Owner elects to retain and that is not otherwise included in the Cost of the Work under Section 14.1.2.1.1. To the extent that the Owner elects to take legal assignment of subcontracts and purchase orders (including rental agreements), the Contractor shall, as a condition of receiving the payments referred to in this Article 14, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Contractor, as the Owner may require for the purpose of fully vesting in the Owner the rights and benefits of the Contractor under such subcontracts or purchase orders.

§ 14.1.3 Termination by the Owner for Convenience

If the Owner terminates the Contract for 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.)

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§ 14.2 Suspension

The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017; in such case, the Guaranteed Maximum Price and Contract Time shall be increased as provided in Article 14 of AIA Document A201–2017, except that the term “profit” shall be understood to mean the Contractor’s Fee as described in Article 5 and Section 6.4 of this Agreement.

ARTICLE 15 MISCELLANEOUS PROVISIONS

§ 15.1 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.

§ 15.2 The Owner’s representative:

(Name, address, email address and other information)

Ralph Knese
Director of Facilities
Parkway School District
363 North Woods Mill Road
Chesterfield, Missouri 63017
Telephone Number: 314-415-8268
Email: rknese@parkwayschools.net

§ 15.3 The Contractor’s representative:

(Name, address, email address and other information)

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

§ 15.5 Insurance and Bonds

§ 15.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A102™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 15.5.2 The Contractor shall provide bonds as set forth in AIA Document A102™–2017 Exhibit A, and elsewhere in the Contract Documents.

§ 15.6 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.)

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§ 15.7 Other provisions:

All Work Orders must be signed by one of the following to be valid:

*Ralph Knese
John Blanton
Greg Mee
Pat Gutting*

In addition to the names above, the following people are authorized to give verbal notification pending a written Work Order:

*Marty Collier
Emir Kalkan
Ben Betts
Dennis Martin
Brandon Hogan
Bill Freymuth*

ARTICLE 16 ENUMERATION OF CONTRACT DOCUMENTS

§ 16.1 This Agreement is comprised of the following documents:

- .1 AIA Document A102™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A102™–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.)

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- .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 16.

.8 Other Exhibits:
(Check all boxes that apply.)

[☐] 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)

**SECTION 006000
PROJECT FORMS**

PART 1 GENERAL

1.01 PROJECT FORMS

- A. The Forms to be executed that are referenced in Section 005000 - Contracting Forms and Supplements and in the various sections of this Project Manual are attached at the end of this document.
- B. The forms attached are as follows:
 - 1. Contractor's Qualification Statement: AIA A305
 - 2. Performance and Payment Bond: AIA A312
 - 3. Service Contractor's Not-To-Exceed Proposal Form
 - 4. Substance Abuse and Safety Program Supplier/Vendor/Visitor Acknowledgement Form
 - 5. OSHA 10-Hour Construction Safety And Health Training Log Form
 - 6. Affidavit of Compliance With the Prevailing Wage Law
 - 7. Asbestos and Lead Based Paint Notification to Contractors
 - 8. Notification of Asbestos and Lead Based Paint Containing Materials Contractor Acknowledgment

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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: _____ **SUBMITTED TO:** _____
(Organization name and address.) (Organization name and address.)

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:

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

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



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.

§ 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.

ADDITIONS AND DELETIONS:

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- .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)

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:

§ 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?

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.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?

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.)

**2025 - Masonry Services – District Wide Various Locations
Bid No. 25-211**

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.

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§ 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.3.2.2.2? 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:



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	<input type="checkbox"/> Design-bid-build <input type="checkbox"/> Design-build <input type="checkbox"/> CM constructor <input type="checkbox"/> CM advisor <input type="checkbox"/> Other:	<input type="checkbox"/> Design-bid-build <input type="checkbox"/> Design-build <input type="checkbox"/> CM constructor <input type="checkbox"/> CM advisor <input type="checkbox"/> Other:	<input type="checkbox"/> Design-bid-build <input type="checkbox"/> Design-build <input type="checkbox"/> CM constructor <input type="checkbox"/> CM advisor <input type="checkbox"/> Other:	<input type="checkbox"/> Design-bid-build <input type="checkbox"/> Design-build <input type="checkbox"/> CM constructor <input type="checkbox"/> CM advisor <input type="checkbox"/> Other:
SUSTAINABILITY CERTIFICATIONS				

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)

Parkway School District
455 North Woods Mill Road
Chesterfield, Missouri 63017
Telephone Number: 314-415-8100

CONSTRUCTION CONTRACT

Date:

Amount: \$ 0.00

Description:

(Name and location)

2025 Masonry Services – District Wide Various Locations
Bid No. 25-211

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:

Signature: _____

Name and

Title:

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

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

ADDITIONS AND DELETIONS:

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

Init.

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User Notes:

(1482318455)

§ 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.

Init.

§ 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

SURETY

Company: _____ (Corporate Seal)

Company: _____ (Corporate Seal)

Signature: _____

Signature: _____

Name and Title: _____

Name and Title: _____

Address: _____

Address: _____

Init.
/

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)

Parkway School District

455 North Woods Mill Road

Chesterfield, Missouri 63017

Telephone Number: 314-415-8100

CONSTRUCTION CONTRACT

Date:

Amount: \$ 0.00

Description:

(Name and location)

2025 - Masonry Services- District Wide Various Locations

Bid No. 25-211

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:)

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

Init.

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User Notes:

(811948336)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

§ 16 Definitions

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

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

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

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

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

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

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

§ 18 Modifications to this bond are as follows:

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

CONTRACTOR AS PRINCIPAL

Company: _____ (Corporate Seal)

SURETY

Company: _____ (Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

Signature: _____
Name and Title: _____
Address: _____



SERVICE CONTRACTOR NOT-TO-EXCEED PROPOSAL FORM

For Office Use Only

Service Contract Type:	_____	Bid Number:	_____
Service Contractor:	_____	Bid Expiration Date:	_____
Building Location:	_____	Board Approval Date:	_____
Work Order Number:	_____	Board Authorized Amount:	_____
Project Number:	_____	Spent + Pending prior to NTE:	_____
Source of Funds:	_____	Remaining Authorization:	_____
Blanket PO Number:	_____	PO balance:	_____
Account Code:	_____		

For Office Use Only

Scope of Work Description:

Contractor To Complete

Not To Exceed Proposal:

Labor:	\$	_____	-
Material:	\$	_____	-
Rental:	\$	_____	-
Total:	\$	_____	-

Estimated Duration to Complete in
Days:

Note: Please attach back-up
calculations for proposal.

Contractor To Complete

Contractor Signature: _____

Date Submitted: _____

For Office Use Only

Reviewed By:	_____	Date:	_____
Administrator Approval:	_____	Date:	_____
Administrator Approval:	_____	Date:	_____

Substance Abuse and Safety Program Supplier/Vendor/Visitor Acknowledgement

I, _____, acknowledge and understand that a Substance Abuse and Safety Program is in effect on this job site and that I will be expected to abide by these job site rules.

I agree not to use, possess, sell or distribute alcoholic beverages, drugs, or drug paraphernalia, drug look-alikes, firearms, weapons, explosives, ammunition, or other prohibited items on this job site. I understand that violations will result in expulsion from this job site.

I understand my involvement in an accident or other circumstances may cause the Owner, Contractor or Subcontractor to require me to have urine, blood, or saliva drug and/or alcohol test as called for in the Program. While my cooperation is voluntary, I understand that failure to cooperate will result in expulsion from this job site. This document does not supersede other job site rules, but is in addition to them.

ACKNOWLEDGEMENT AND ACCEPTANCE:

Signature _____

Date _____

Print Name _____

Company _____

SECURITY BADGE & OSHA 10 HOUR CONSTRUCTION SAFETY & HEALTH TRAINING LOG

Parkway Project Number _____

The undersigned certify that they have obtained a security badge from the Owner's security office and that they have successfully completed the OSHA 10 Hour Safety Training program pursuant to Section 292.675 RSMo and understand that they shall carry the issued security badge and documentation of successful completion of the OSHA 10 Hour Safety Training program at all times while working on the Project site.

Print Name	Signature	First Date On Site	Company	Owner's Security Badge Number	OSHA 10 Hour Training Certification Number



MISSOURI DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
AFFIDAVIT
COMPLIANCE WITH THE PREVAILING WAGE LAW

I, _____, upon being duly sworn upon my oath state that: (1) I am the
(Name)
_____ of _____; (2) all requirements of
(Title) (Name of Company)
§§ 290.210 to 290.340, RSMo, pertaining to the payment of wages to workers employed on public works projects
have been fully satisfied with regard to this company's work on _____;
(Name of Project)

(3) I have reviewed and am familiar with the prevailing wage rules in 8 CSR 30-3.010 to 8 CSR 30-3.060; (4) based upon my knowledge of these rules, including the occupational titles set out in 8 CSR 30-3.060, I have completed full and accurate records clearly indicating (a) the names, occupations, and crafts of every worker employed by this company in connection with this project together with an accurate record of the number of hours worked by each worker and the actual wages paid for each class or type of work performed, (b) the payroll deductions that have been made for each worker, and (c) the amounts paid to provide fringe benefits, if any, for each worker; (5) the amounts paid to provide fringe benefits, if any, were irrevocably made to a fund, plan, or program on behalf of the workers; (6) these payroll records are kept and have been provided for inspection to the authorized representative of the contracting public body and will be available, as often as may be necessary, to such body and the Missouri Department of Labor and Industrial Relations; (7) such records shall not be destroyed or removed from the state for one year following the completion of this company's work on this project; and (8) there has been no exception to the full and complete compliance with the provisions and requirements of Annual Wage Order No. _____ Section _____ issued by the Missouri Division of Labor Standards and applicable to this project located in _____ County, Missouri, and completed on the _____ day of _____, _____.

The matters stated herein are true to the best of my information, knowledge, and belief. I acknowledge that the falsification of any information set out above may subject me to criminal prosecution pursuant to §§290.340, 570.090, 575.040, 575.050, or 575.060, RSMo.

Signature

Subscribed and sworn to me this _____ day of _____, _____.
My commission expires _____, _____.

Notary Public

Receipt by Authorized Public Representative

**AFFIDAVIT
RECORD DOCUMENT COMPLETION**

Before me, the undersigned Notary Public, in and for the County of _____,
in the State of _____, personally came and appeared (Name),
_____- (Title) _____

of the (Name of Company) _____
(a corporation)(a partnership)(a proprietorship) and after being duly sworn did depose and say
that the Record (Drawings)(Specifications) have been marked-up in the Owner's electronic
document management system with all known as-constructed variations from the Bid
Documents, with the exception of those variations officially issued in the form of sketches,
drawings, or specification changes by the Architect and Owner through Supplemental
Instructions, Change Directives, or Change Orders, which variations have been completed by
the Architect in the performance of their contractual services to the Owner, as required in the
Specifications for the Project known as:

(Owner's Project Number) _____

(Project Title) _____

(Project Facility Name) _____

Signature: _____ Date: _____

Subscribed and sworn to me this _____ day of _____, _____

My commission expires _____, _____

Notary seal and signature:

ASBESTOS AND LEAD BASED PAINT NOTIFICATION TO CONTRACTORS

At

Parkway School District

Building: #, *Name of Building/School*

Address of Building/School

Address of Building

Date

Contact Name

Name of Contractor

Address

Address

Dear *Contact Name*:

As a contractor for the Parkway School District (PSD), your employees and subcontractors have access to and will be working in the PSD building (*School Name*). All PSD buildings, except for Early Childhood North, Southwest Middle and Oakbrook Elementary contain some amount of asbestos containing building materials. All Parkway School District Buildings built in or previous to 1978 were tested for the presence of lead based paint. In compliance with U.S. Environmental Protection Agency asbestos notification requirements (40 CFR 763.84), and the Lead Renovation Repair and Painting Rule (40 CFR 745) the PSD is submitting this notification package to *Name of Contractor*. Attached is the *Name of Building/School* asbestos and lead based paint information package for you to review with your employees and subcontractors prior to beginning work in *Name of Building/School*. The asbestos materials identified in this notification are for interior building materials only. Exterior and inaccessible building materials may not have been sampled or identified as asbestos or lead containing. Should exterior or hidden suspect building materials be encountered, work in this area should not begin until additional sampling and materials identification is performed by PSD. This package includes asbestos and lead based paint summary sheet(s) for *Name of Building/School* and the Contractor Notification Signature Sheet that must be signed by all *Name of Contractor* personnel and subcontractor personnel that will be working at *Name of Building/School*. Each employee must sign the signature sheet to be able to conduct work in the buildings. Employees are required to sign signature sheet only one time.

Asbestos & Lead Based Paint Notification

Name of Contractor

Name of Building/School

Date

Asbestos and lead based paint materials denoted on the asbestos and lead based paint summaries are not to be disturbed. Only Certified Lead Renovators can perform work with lead based paint using approved renovation, repair and painting practices. If your employees should discover any disturbed asbestos containing materials or lead based paint; or if they disturb these materials while they are in the building; all work must stop and *Name of Contractor* must notify me (573-201-5067) immediately. Additional notification must be made to the district construction supervisor or maintenance supervisor that manages the project. If your employees discover a material that they are unsure of its asbestos or lead based paint content, they must not disturb it without authorization from PSD.

Original signed signature sheets must be submitted to the District Construction Supervisor on a weekly basis. Copies of the signature sheet may be made as needed for each successive week. A copy of the signature sheet and the asbestos and lead based paint material summaries must be available on site during any work within a specific building so that *Name of Contractor* employees, subcontractor employees, and PSD can review them at any time. PSD reserves the right to review these documents when *Name of Contractor* employees or subcontractors are working in a building. If these documents are not available, or *Name of Contractor* personnel working in the building have not signed the signature sheet, PSD can stop work until the required documents and signatures are available. If you have any questions concerning the asbestos and lead based paint summary sheets or the contractor notification signature sheets that we have included in this package please call me at 314-415-8260.

Stephanie Kline-Tissi, ASP
Safety Manager, District Operations
Parkway School District
Phone: 314-415-8260
24-Hour Emergency Number: 314-415-8200

Name of Contractor

Name of Building/School

Date

CONTRACTOR NOTIFICATION OF ASBESTOS AND LEAD BASED PAINT CONTAINING BUILDING MATERIALS

Retain Copy in Asbestos Files

Month Ending Date: _____

Company Name: _____ *Name of Contractor* .

Parkway Building: _____ *Name of Building/School*

Name & Title of
Company Representative: _____ *Name of Contact*

Type of Work to be Performed: *Type of Work to be Performed* Bid No. *Project #*

I have reviewed the Asbestos information for *Name of Building/School* and have been advised of the types and locations of asbestos materials that I may potentially come into contact with while performing my work. I have been given the opportunity to review the Asbestos Management Plan for this facility, if requested. I will perform my work without disturbing the asbestos containing materials or will inform the Construction Supervisor and the Asbestos Program Manager if unable to do so. In such case, the Asbestos Program Manager will give instructions as required prior to any work that may potentially disturb asbestos-containing materials. If asbestos-containing materials are inadvertently disturbed or if disturbed materials are discovered, work will cease immediately, and the Construction Supervisor and Safety Manager, Stephanie Kline-Tissi (573-201-5067) will be contacted. The Construction or Maintenance Supervisor managing the project will also be contacted if the Parkway supervisor is not available.

COMPANY NAME	PRINTED NAME & SIGNATURE	DATE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Date _____

DATE _____

[illegible]

**SECTION 007200
GENERAL CONDITIONS**

PART 1 GENERAL

1.01 FORM OF GENERAL CONDITIONS

- A. The General Conditions applicable to this contract is attached at the end of this document.

1.02 RELATED DOCUMENTS

- A. Document 005200 - Agreement Form.
- B. Section 014216 - Definitions.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

AIA® Document A201® – 2017

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

**2025 Masonry Services – District Wide Various Locations
Bid No. 25-211**

THE OWNER:

(Name, legal status and address)

**Parkway School District
455 North Woods Mill Road
Chesterfield, Missouri 63017
Telephone Number: 314-415-8100**

THE ARCHITECT:

(Name, legal status and address)

TBD

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The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

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.

Init.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

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

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and 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, *expertise*, 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, the Architect's consultants, *and any other design professionals retained by the Owner for the Project* 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 and *certify termination of the Agreement under Section 14.2.2.*

§ 1.1.9 Hazardous Materials

Hazardous Materials are those materials or substances regulated as a hazardous substance, hazardous material, toxin, pollutant, or hazardous waste under applicable federal, state, or local laws, ordinances, rules, or regulations governing the protection of human health or the environment.

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§ 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, the Architect's consultants, **and any other design professionals retained by the Owner for the Project** 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 **certified or registered** mail, by courier **providing proof of delivery**, 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 **electronic transmission to the centralized electronic document management system**.

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§ 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 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 Not used. § 2.2.2 Not used. § 2.2.3 Not used. § 2.2.4 Not used.

(Paragraphs deleted)

§ 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 *upon Contractor's written request for such information*. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but *only after the Contractor diligently reviews such surveys and notifies the Owner of any discrepancies or problems observed by the Contractor*. The Contractor shall exercise proper precautions relating to the safe performance of the Work *when relying upon Owner supplied surveys*.

§ 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 *reasonably necessary which are* 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.

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§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish *free of charge* to the Contractor *up to twenty (20) copies* of the Contract Documents. *Additional copies will be furnished upon request by the Contractor at the cost of reproduction, postage, and handling.*

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is *defective or otherwise* 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 *or fails to supply sufficient skilled labor, suitable materials, or appropriate equipment*, 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 *written* approval of the Architect. *In such case, an appropriate Change Order shall be issued* 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 *lawfully licensed or registered as a Contractor in St. Louis County, Missouri and the State of Missouri and* 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.

§ 3.2.2.1 *In all cases where the Work abuts or interconnects with existing or other work, Contractor shall verify at the site all grades, elevations, locations, or dimensions relating to such existing or other work. Any errors in the Work due to Contractor's failure to verify all such grades, elevations, locations, or dimensions shall be promptly rectified at Contractor's sole cost, without any additional cost to the Owner.*

§ 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 **Owner and Architect** shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the **Owner or 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 **Owner or 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

§ 3.6.1 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.

§ 3.6.2 As set forth in 144.030RSMo and 144.062RSMo, Contractors who purchase materials and/or supplies for the purpose of construction, repairing, or remodeling facilities for the Owner are exempt from paying sales tax on those materials and/or supplies. The official state tax exemption certificate will be furnished to the Contractor by the Owner.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 **The Owner shall secure and pay the building permit from St. Louis County, Missouri or the local municipality, whichever has jurisdiction, the building permit from the local Fire District, and the permit and connection fees required by the Metropolitan St. Louis Sewer District, as applicable. The Contractor will be required to pick up the permits from the government agencies. The Contractor will be reimbursed by the Owner for the actual direct cost of these permits without any additional costs except for a reasonable amount of project management time required to pick up the permits.** The Contractor shall secure and pay for any other permits, fees, licenses, and inspections by government agencies necessary for proper execution, completion, **and occupancy** 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 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 that an equitable adjustment be made in the Contract Sum or Contract Time, or both. **The Contractor's failure to advise the Owner and the Architect of such concealed conditions within 7 days of discovery by the Contractor or any party claiming under the Contractor shall preclude the Contractor's right to seek costs related to such conditions.** 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.

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§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner 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 of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Owner may notify the Contractor, stating whether the Owner (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Owner 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 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 Owner's approval. The Owner'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 and the Owner 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.

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§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.10.4 *Whenever it becomes apparent from the latest schedule or otherwise that any completion date on the original schedule, subject to adjustment as provided under the Contract Documents, may not be met, the Contractor shall take some or all of the following actions at no additional cost to the Owner to put the Project back on schedule: (1) increase construction manpower in such quantities as will eliminate the backlog of work; (2) increase the number of working hours per shift, shifts per working day, working days per week, or the amount of construction equipment, or a combination of the aforesaid, which will substantially eliminate the backlog of work; (3) reschedule activities to achieve maximum practical accomplishment of activities. If the Contractor fails to take any of the above within seventy-two (72) hours after receiving written notice from the Owner or Architect of the slip in schedule, the Owner may, but shall not be obligated, to take action to attempt to put the Project back on the original schedule, subject to the adjustments permitted hereunder, and deduct the cost of such actions from the Contract Sum.*

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

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

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

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect *and the Owner* is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect *and the Owner* are not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect *and the Owner* without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect *and the Owner*, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the *Owner* 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 *and the Owner*.

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§ 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 *and the Owner's* approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect *and the Owner* of such deviation at the time of submittal and (1) the Architect *and the Owner* have 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 *and the Owner'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 *and the Owner* on previous submittals. In the absence of such notice, the Architect's *and the Owner's* approval of a resubmission shall not apply to such revisions.

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

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. *Such design professionals shall obtain and maintain through their provisions of Work under this Agreement, professional errors and omissions liability insurance in the amount of two million dollars (\$2,000,000) per claim and three million dollars (\$3,000,000) in the aggregate.* 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 *and the Owner* 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 *and the Owner* at the time and in the form specified by the Architect *and the Owner*.

§ 3.13 Use of Site

The Contractor shall confine operations *and the storage of materials and equipment* 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.

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§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall *continuously* 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. *Other representatives of the Owner, such as testing agencies and governmental agencies shall have access to the project at reasonable times for their observation, inspection, and testing. The Contractor will provide proper and safe conditions for such access.*

§ 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, *defend with legal counsel acceptable to the Owner*, 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 *personal injury*, bodily injury, sickness, disease or death, *the Contractor's failure to make payment to any subcontractor or supplier in connection with the Work*, 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 *Owner approves* the final *Application* for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

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§ 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 *endeavor to* include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. *If the Owner is unable to include the Architect in a communication with the Contractor, the Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor relating to the Architect's services or professional responsibilities or otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect unless the Architect authorizes direct communication with the Architect's consultants. If authorized by the Architect, the Owner or Contractor shall promptly notify the Architect of the substance of any direct communications between the Owner or Contractor and the Architect's consultants.* Communications by and with Subcontractors and suppliers shall be through the Contractor *unless the Contractor authorizes direct communication with the Contractor's Subcontractors and suppliers. If authorized by the Contractor, the Owner or Architect shall promptly notify the Contractor of the substance of any direct communications between the Owner or Architect and the Contractor's Subcontractors and suppliers.* Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Not used.

§ 4.2.6 The Architect, *in consultation with the Owner*, has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect, *in consultation with the Owner*, 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 Owner 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 *assist the Owner in preparing* 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.

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§ 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, *made with the concurrence of the Owner*, 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 Owner may notify the Contractor whether the Owner (1) has objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Owner to provide notice within the 14-day period shall constitute notice of no objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner has made 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 objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner has no 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 change the initial list of Subcontractors approved by the Owner without written approval.* The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner makes 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. ***Subcontractors shall be required, unless otherwise agreed to in writing by the Owner, to carry the same types and amounts of insurance as the Contractor, and shall name the Owner, Architect, and Architect's consultants as additional insured with respect to the Project.*** Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

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

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

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

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

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

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction 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.

§ 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 ***Owner's*** 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

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construction schedules shall then constitute the schedules to be used by the Contractor, *the Owner's* Separate Contractors, and the Owner until subsequently revised *and agreed to by the Owner*.

§ 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 Owner and* 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 *Owner* and *approved* 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

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- .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 **Owner or Architect or both and approved** by the Owner, **Contractor**, 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 *preparing a proposal* for the change in the Work involved and advise the **Owner** 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.

§ 7.3.6.1 *The Contractor shall promptly proceed with the change in the Work described in the Construction Change Directive only if the Contractor is explicitly directed to proceed in the Construction Change Directive.*

§ 7.3.6.2 *If the Construction Change Directive does not contain an explicit direction to proceed, the Contractor shall promptly proceed with the change in the Work only upon receipt of a Change Order that references the Construction Change Directive.*

§ 7.3.7 A Construction Change Directive **approved** 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.

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§ 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 Owner will make an interim determination for those costs that the Owner determines to be reasonably justified. The Owner'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, Architect, and Contractor agree 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 Owner 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, *in consultation with the Owner* 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 the Owner* 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. *The date of commencement of the Work shall not be changed by the effective date of such insurance.*

§ 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 Not used.

§ 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 **Owner** 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 **Owner**. This schedule, unless objected to by the **Owner**, 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 **Owner** and supported by such data to substantiate its accuracy as the **Owner** may require, and unless objected to by the **Owner**, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the **Owner** 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** may 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 **Owner**, but not yet included in Change Orders.

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

§ 9.3.1.3 *The Owner will not withhold retainage on account of progress payment provided the Contractor shall have met identified target dates in the Contractor's CPM network analysis schedule for the Project.*

§ 9.3.1.4 *The Owner reserves the right to withhold retainage on account of progress payments in the amount not to exceed five percent (5%) of the total completed and stored to date amount as identified in the Application for Payment if the Contractor has not met identified target dates in the Contractor's CPM network analysis schedule for the Project.*

§ 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

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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 *Owner* will, within seven days after receipt of the Contractor's Application for Payment, either *approve the Application for Payment* or withhold *the Application for Payment*, and notify the Contractor of the *Owner's* reason for withholding certification in whole *or in part* as provided in Section 9.5.1.

§ 9.4.2 Not used.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The *Owner* may withhold *an Application for Payment* in whole or in part, to the extent reasonably necessary to protect the *Owner*, if in the *Owner's* opinion the *Work has not progressed to the point indicated or quality of the Work is not in accordance with the Contract Documents*. If the *Owner* is unable to *approve* payment in the amount of the Application for Payment, the *Owner* will notify the Contractor as provided in Section 9.4.1. If the Contractor and *Owner* cannot agree on a revised amount, the *Owner* will promptly issue *an Application for Payment* for the amount for which the *Owner* is able to *approve*. The *Owner* may also withhold *an Application for Payment* or, because of subsequently discovered evidence, may nullify the whole or a part of *an Application for Payment* previously issued, to such extent as may be necessary in the *Owner'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 *the Contractor* disputes the *Owner's* decision regarding *an Application for Payment* under Section 9.5.1, in whole or in part, *the Contractor* may submit a Claim in accordance with Article 15.

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

§ 9.5.4 If the *Owner* withholds *an Application 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 Contractor *and the Contractor* shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 The *Owner* shall make payment *on an approved Application for Payment* in the manner and within the time provided in the Contract Documents.

§ 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 *Owner* 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

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

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

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend, indemnify, *and hold harmless* the Owner *as provided in Section 3.18* for 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 *Owner* does not *approve an Application* 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 *approved by the Owner* or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner *and the Owner's failure to cure such a delinquent payment within the seven (7) day period*, 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 *and the Owner* will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's *and the Owner'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.

§ 9.8.3.1 *If the Architect's and the Owner's inspection discloses an item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents, but does not preclude the Owner from occupying or utilizing the Work or designated portion thereof for its intended use, then the Architect shall append the items to the list prepared by the Contractor. The appended list of items to be completed or corrected prior to final payment shall be attached to the Certificate of Substantial Completion.*

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§ 9.8.4 When the Work or designated portion thereof is substantially complete, the **Owner** 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 *and fix the value of the amount of retainage to be withheld until the Contractor shall finish all items* on the list of items to be completed or corrected prior to final payment 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.

§ 9.8.4.1 *Warranties required by the Contract Documents shall commence on the date of acceptance by the Architect and the Owner for any items on the list of items to be completed or corrected prior to final payment.*

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the **Architect** 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, the **Owner** will promptly make such inspection. When the **Owner** finds the Work acceptable under the Contract Documents and the Contract fully performed, the **Owner** will promptly *approve the final Application for Payment upon receipt. If the Owner does not find the Work acceptable or completed, the Owner shall notify the Contractor of the details in which the inspections reveal that the Work is incomplete or defective. The Contractor shall immediately take such measures as are necessary to complete the Work or remedy the incomplete or defective Work.*

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the **Owner** (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

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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 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 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 Owner 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.

§ 9.11 Liquidated Damages and Incentives

§ 9.11.1 *Because the Owner has scheduled use of the completed project, time is an essential and material factor of this Agreement. Failure to complete the work on or before the date of Substantial Completion will subject the Owner to loss and damage. Since the measure of such loss or damage is not readily ascertainable, it is hereby established that the loss according to the Owner from any failure on the part of the Contractor to date shall be liquidated and fixed at sum of \$N/A per calendar day or portion of day that the work remains incomplete past the date of Substantial Completion in accordance with the terms of this Agreement.*

§ 9.11.2 *The Owner shall reward the Contractor for early completion of the project before the date of Substantial Completion at the sum of \$N/A per calendar day up to a sum that shall not exceed \$N/A.*

§ 9.11.3 *The Contractor agrees that this is a reasonable amount for liquidated damages due to delays and is not a penalty. Owner may deduct this sum from any sum that may be due to the Contractor.*

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 *and necessary* 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

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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.

§ 10.2.4.1 *When use or storage of explosives, hazardous materials, equipment, or unusual methods are necessary, the Contractor shall give the Owner advance notice and shall receive written approval from the Owner for such use or storage.*

§ 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.

§ 10.3.1.1 *The Owner will notify the Contractor prior to beginning the Work of the location for known asbestos containing materials and lead containing materials within the limits of the Work. The Contractor shall be required to notify all of the Contractor's employees, Subcontractors, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable that may come in contact with asbestos containing materials and lead containing materials within the limits of the Work. Information presented to the Contractor by the Owner identifying the location for all known asbestos containing materials and lead containing materials within the limits of the Work shall be displayed prominently at the work site for all workers to review.*

§ 10.3.1.2 *Prior to being allowed on the work site, the Contractor's employees, Subcontractors, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable that may come in contact with the asbestos containing materials and lead containing materials shall be required to sign an acknowledgement form indicating that they have been informed of the presence and location for all known asbestos containing materials and lead containing materials and that the known asbestos containing materials and lead containing materials shall not be disturbed in any manner.*

§ 10.3.1.3 The Contractor shall indemnify and hold harmless the Owner for any disturbance of the disclosed known asbestos containing materials and lead containing materials by the Contractor's employees, Subcontractors, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable that may come in contact with the asbestos containing and lead containing materials under the Contractor's obligations in Section 3.18. Failure to fulfill the Contractor's requirements under Section 10.3.1.2 shall not relieve the Contractor of obligations under this Section 10.3.1.3 or Section 3.18

§ 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.

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§ 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.

§ 11.3 Waivers of Subrogation

§ 11.3.1 *There are no waivers of subrogation.*

§ 11.3.2 Not used.

§ 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.

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§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, *after discovery of the condition* 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. ***The waiver of the rights by the Owner to require correction of non-conforming work and make a claim for breach of warranty by the Contractor is not applicable to non-conforming work discovered after the one year period, but within statutory limitation period provided by law.*** If the Contractor fails to ***commence and continue correction of such nonconforming Work with diligence and promptness within the ten-day 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 *A new one-year period for correction of Work shall exist for all corrective work performed by the Contractor pursuant to this Section 12.2, but such a new one-year period shall apply only to the specific item, component, or system corrected.*

§ 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 state of Missouri.

§ 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 *Owner and Architect* timely notice of when and where tests and inspections are to be made so that the *Owner and Architect* may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become

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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 **Owner** will, upon written authorization, 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 **Owner and Architect** of when and where tests and inspections are to be made so that the **Owner and Architect** may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the 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 **Owner and Architect**.

§ 13.4.5 If the **Owner and Architect** are to observe tests, inspections, or approvals required by the Contract Documents, the **Owner and 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 *governed by the law of the state of Missouri*.

§ 13.6 Equal Opportunity

§ 13.6.1 *The Contractor shall maintain policies of employment as follows:*

§ 13.6.1.1 *The Contractor and the Contractor's Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, or national origin. Such action shall include, but not be limited to: employment, promotions, demotions, transfers, recruitment, recruitment advertising, layoffs, terminations, rates of pay or compensation, and selection of training, including apprenticeships. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.*

§ 13.6.1.2 *The Contractor and the Contractor's Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, or national origin.*

§ 13.7 Domestic Products Procurement

§ 13.7.1 *The Owner encourages Contractors and Subcontractors to purchase or lease products manufactured, assembled, or produced in the United States when providing goods and services to the Owner.*

§ 13.7.2 *As set forth in 171.181 RSMo, the Owner will give preference to commodities manufactured, mined, produced, or grown within the state of Missouri and will give preference to all firms, corporations, or individuals doing business as Missouri firms, corporations, or individuals when quality and price are approximately the same.*

§ 13.8 Americans with Disabilities Act

§ 13.8.1 *The Owner is bound by and complies with the Americans with Disabilities Act (ADA). The Owner has designated the following individual to oversee the ADA requirements for the Owner: Mr. James Swingle, P.E., Manager of Planning and Construction Services, 314-415-8289.*

§ 13.9 Alternative Dispute Resolution

§ 13.9.1 *Alternative Dispute Resolution (ADR) methodologies will be encouraged in place of more formal dispute resolution procedures. ADR will assist in promoting and maintaining an amicable working relationship between parties. ADR is to be a voluntary, non-binding procedure available for use by the parties to this Contract to resolve any dispute that may arise during performance of the Work.*

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 *authorized* Work *properly* 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;

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- .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, 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 *time period specified by the laws of the state of Missouri.*

§ 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

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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. ***The Contractor shall make allowance in the Contract Time and schedule for 10 adverse weather condition days. Claims for additional costs or time extensions due to adverse weather conditions will not be entertained until after these 10 adverse weather condition days have been claimed and resolved according to Section 15.2***

§ 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 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 excludes

- .1 ***damages incurred by the Owner or Contractor as the result of either party's gross negligence or willful misconduct, and***
- .2 ***damages incurred by the Owner or Contractor covered by insurance in accordance with requirements as outlined in Article 11.***

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 *litigation* 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 binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

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

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

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties 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 binding dispute resolution.

§ 15.2.6 Not used.

§ 15.2.6.1 Not used.

§ 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 *Binding mediation will not be allowed under this Contract as a method to resolve any claim, dispute or other matter in question arising out of or related to this Contract.* 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 *non-binding alternative dispute resolution methods or by binding dispute resolution.* § 15.3.2 The parties shall endeavor to resolve their Claims, *disputes, or other matter in question arising out of or related to the Contract by non-binding alternative dispute resolution methods.* A request for *non-binding alternative dispute resolution methods* shall be made in writing, delivered to the other party to the Contract. The request may be made concurrently with the filing of binding dispute resolution proceedings.

(Paragraph deleted)

§ 15.3.3 Not used.

Init.

§ 15.3.4 *Not used.*

§ 15.4 Arbitration

§ 15.4.1 *Arbitration will not be allowed under this Contract as a method to resolve any Claim, dispute or other matter in question arising out of or related to this Contract.*

§ 15.4.1.1 *Not used.*

§ 15.4.2 *Not used.*

§ 15.4.3 *Not used.*

§ 15.4.4 *Not Used*

§ 15.4.4.1 *Not used.*

§ 15.4.4.2 *Not used.*

§ 15.4.4.3 *Not used.*

§ 15.5 Binding Dispute Resolution

§ 15.5.1 *Any unresolved controversy or claim arising out of or related to the contract, or the breach thereof, shall be settled by litigation in accordance with the laws of the state of Missouri, except controversies or claims relating to aesthetic effect as provided in Section 4.2.13 and except those waived as provided for in Sections 9.10.4, and 9.10.5, and 15.1.7. Such controversies or claims upon which the Initial Decision Maker has given notice and rendered a decision as provided in Section 15.2.5 shall be subject to litigation.*

§ 15.5.2 *Any litigation shall be filed in the Circuit Court of St. Louis County in the state of Missouri.*

Init.

**SECTION 011000
SUMMARY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project information.
- B. Contract description.
- C. Duration of Agreement.
- D. Description of the Work.
- E. Work by Owner.
- F. Owner occupancy.
- G. Contractor use of site and premises.
- H. Work sequence.
- I. Time management.
- J. Emergency response time.
- K. Specification conventions.

1.02 PROJECT INFORMATION

- A. Project Name: Masonry Services FY24-25
- B. Owner's Name: Parkway School District
- C. Architect's Name: As described in each Work Order.
- D. The Project consists of the new installations, renovations, and repairs at various locations for masonry services.

1.03 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on the cost of work with a guaranteed maximum price as described in Document 005200 - Agreement Form.

1.04 DURATION OF AGREEMENT

- A. The Agreement is intended to have a three (3) year duration.
- B. The duration of the Agreement is not guaranteed and may be terminated by the Owner in accordance with the AIA Document A201, General Conditions of the Contract for Construction, Article 14.
- C. The Unit Prices identified for the second year in the Agreement will be applicable to any Work performed on behalf of a Work Order dated after the first anniversary date of the Agreement.
- D. The Unit Prices identified for the third year in the Agreement will be applicable to any Work performed on behalf of a Work Order dated after the second anniversary date of the Agreement.

1.05 DESCRIPTION OF THE WORK

- A. Scope of demolition and removal work is as described in each Work Order and specified herein.
- B. Scope of alterations work is as described in each Work Order and specified herein.
- C. Scope of new work is as described in each Work Order and specified herein.
- D. The Work includes, but is not limited to:
 - 1. Demolition of existing masonry walls.
 - 2. Demolition of existing segmental block walls.
 - 3. Demolition of unit paver areas.
 - 4. Repair of existing masonry walls, including tuck pointing.

5. Construction of new masonry walls, including brick, CMU, split faced block.
 6. Construction of segmental block retaining walls.
 7. Construction of unit paver areas.
 8. Other Work not specifically identified above which is associated with masonry systems as directed by the Owner through a Work Order.
- E. Owner will remove the following items before start of the Work:
1. As described in each Work Order.
- F. Contractor shall remove and deliver the following to Owner prior to start of the Work:
1. As described in each Work Order.
- G. Contractor shall remove and store the following prior to start of the Work, for later reinstallation by Contractor:
1. As described in each Work Order.

1.06 WORK BY OWNER

- A. Owner has awarded a contract for abatement of asbestos containing materials.
1. The asbestos management plans are available for inspection from 8:00 a.m. to 4:00 p.m. Monday through Friday at the Owner's Environmental Group offices located at the District Operations Building, 363 North Woods Mill Road, Chesterfield, Missouri 63017.
 2. The asbestos management plans are available while performing the work during normal work hours at the Administrative Offices of the facility at which the work is to be completed.
- B. The Owner has awarded other contracts for:
1. Asphalt services.
 2. Building automation systems services.
 3. Carpentry and glazing services.
 4. Concrete paving services.
 5. Electrical services.
 6. Elevator services.
 7. Fire alarm systems services.
 8. Floor covering services,
 9. HVAC services.
 10. Painting, plastering, and wall covering services.
 11. Plumbing and fire sprinkler services.
 12. Public address systems services.
 13. Roofing services.
 14. Telecommunications cabling services .
 15. Tile setting services.
 16. Window treatment services.
- C. All Other Contracts:
1. Owner has awarded separate contracts for various trades described in paragraph 1.06.
 2. The Work will be performed by the trade that normally and customarily performs portions of the Work pertaining to that trade.
 3. The Owner shall determine which contractor shall perform portions of the Work when there is no normal and customary precedent or in the case of dispute between the contractors.
- D. Owner will supply and install the following:
1. As described in each Work Order.
- E. Owner will supply the following for installation by Contractor:
1. As described in each Work Order.

1.07 OWNER OCCUPANCY

- A. Owner intends to continue to occupy adjacent portions of the existing building during the entire construction period.
- B. Owner intends to occupy the Project upon Substantial Completion.
- C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- D. Schedule the Work to accommodate Owner occupancy.

1.08 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas specifically required to perform the Work and to areas agreed to in advance by Owner for storage of supplies and staging..
- B. Arrange use of site and premises to allow:
 - 1. Owner occupancy.
 - 2. Work by Others.
 - 3. Work by Owner.
 - 4. Use of site and premises by the public.
- C. Provide access to and from site as required by law and by Owner:
 - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 - 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Existing building spaces may not be used for storage without expressed consent of the Owner.
- E. Time Restrictions:
 - 1. Limit conduct of exterior work to the hours of 7:00 a.m. to 6:00 p.m. or by local ordinance if more restrictive unless given specific written permissionn by the Owner to work outside of these hours..
 - 2. Limit conduct ofof interior work to the hours of 6:00 a.m. to 11:00 p.m..
 - 3. Disruptive Work: prior to 7:00 a.m., after 3:45 p.m., or any day school is not in session .
 - a. Disruptive work is defined as work that will vibrate the building structure, will cause excessive noise in adjacent classrooms, has potential of releasing noxious fumes, or puts building occupants in a potentially unsafe situation.
- F. Utility Outages and Shutdown:
 - 1. Contractor shall not proceed with utility outage or shutdown without written confirmation from Owner that utility outage or shutdown can commence.
 - 2. Limit disruption of utility services to hours the building is unoccupied.
 - 3. Contractor shall notify Owner at least 48 hours in advance of utility outage or shutdown.
 - 4. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days notice to Owner and authorities having jurisdiction.
 - 5. Prevent accidental disruption of utility services to other facilities.

1.09 WORK SEQUENCE

- A. Defined Scope:
 - 1. The Owner will issue to the Contractor a Service Contractor Not-To-Exceed Proposal Form that will define the scope of the Work for the proposed Work Order.
 - 2. The Contractor shall complete the Service Contractor Not-To-Exceed Proposal Form with the total representing the Guaranteed Maximum Price and return the form to the Owner as soon as possible but no later than 14 calendar days from receipt.
 - 3. The Owner will review the Blanket Contractor Not To Exceed Proposal Form and
 - a. if the proposal is acceptable, the Owner may issue a Work Order.
 - b. if the proposal is not acceptable, the Owner will negotiate with the Contractor until an acceptable proposal is provided.

- c. if the proposal is not acceptable and negotiations are unsuccessful, the Owner will not issue a Work Order and will look for other options to complete the Work.
- B. Undefined Scope:
 - 1. Work that requires an emergency response or requires an investigative approach is considered as having an undefined scope.
 - 2. The Owner will provide verbal authorization to proceed for Work that requires and emergency response.
 - 3. Owner will provide a written Work Order to Contractor within 24 hours of placing emergency telephone call.
 - 4. The Owner will issue a Work Order for Work that requires an investigative approach.
 - 5. Upon completion of the investigation, the Owner may:
 - a. require the Contractor to complete the Work under the issued Work Order.
 - b. require the Contractor to stop work on the Work Order and the Owner may initiate the work sequence for a defined scope.
 - c. require the Contractor to stop work on the Work Order and the Owner may initiate the process for developing the work as a lump sum bid project.
 - d. require the Contractor to stop work and the Owner abandons the Work.
- C. Coordinate construction schedule and operations with Owner.

1.10 TIME MANAGEMENT

- A. Work Notification: Contractor shall e-mail or fax list of Contractor personnel working on each Work Order with approximate start and stop times by 8:00 a.m. each day to Owner's supervisor noted on Work Order at supervisor's e-mail or fax number.
 - 1. The Contractor will be provided with all Owner's supervisor of Work Orders contact information.
 - 2. The appropriate Work Order number or numbers must appear on the list associated with each Contractor personnel identified.
- B. Time Documentation: Contractor shall e-mail or fax time tickets by 8:00 a.m. the following day for each Work Order to Owner's supervisor noted on Work Order at supervisor's e-mail or fax number.
 - 1. The appropriate Work Order number must appear on each time ticket.
- C. The labor cost for the time required to accomplish the time management reporting may be charged directly at the Clerical labor category unit price.
 - 1. No other time shall be charged to the Clerical labor category as normal and customary clerical personnel duties are to be included in Contractor's overhead rates.

1.11 EMERGENCY RESPONSE TIME

- A. Contractor shall provide emergency contact telephone numbers for use by Owner after normal working hours.
- B. Contractor shall respond on site with adequate labor and materials to perform the Work within four (4) hours maximum to all emergency telephone calls from Owner's designated personnel.
- C. Failure to meet the emergency response time or to provide adequate labor and material to perform the Work necessary to mitigate the emergency, provided materials necessary are available during emergency response time, may be considered grounds for termination of the Agreement by Owner for cause.

1.12 SPECIFICATION CONVENTIONS

- A. These specifications are written in imperative mood and streamlined form.
- B. This imperative language is directed to the Contractor, unless specifically noted otherwise.
- C. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.
- D. All references to "days" are consecutive calendar days, unless specifically noted otherwise.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 012000
PRICE AND PAYMENT PROCEDURES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Hourly rates.
- D. Change procedures.
- E. Correlation of Contractor submittals based on changes.
- F. Procedures for permit, municipal surety bonds, and utility connection fee reimbursements.
- G. Procedures for preparation and submittal of application for final payment.

1.02 RELATED REQUIREMENTS

- A. Section 005000 - Contracting Forms and Supplements: Forms to be used.
- B. Section 005200 - Agreement Form: Contract Sum, retainages, payment period, monetary values of unit prices.
- C. Section 007200 - General Conditions: Additional requirements for progress payments, final payment, changes in the Work.
- D. Section 012200 - Unit Prices: Monetary values of unit prices; Payment and modification procedures relating to unit prices.
- E. Section 017800 - Closeout Submittals: Project record documents.

1.03 MONTHLY CASH FLOW PROJECTION

- A. Submit cash flow projection information on a month to month basis from start of contract date thru substantial completion.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Format: Submit required information either in typewritten form or on electronic media printout.
 - 1. Form is included in Section 006000.
 - 2. A blank electronic form for electronic media printout is provided on the Owner's electronic document management system - Forms & Standards tab - Project Forms Library table.
- C. Forms filled out by hand will not be accepted.
- D. Execute certification by signature of authorized officer.
- E. Application for Payment shall include the following information:
 - 1. Date of invoice or payment application.
 - 2. Contractor's invoice or payment application number.
 - 3. Indicate whether payment application is "final" or "progress" application. Provide sequential number for each "progress" application.
 - 4. Owner's purchase order number.
 - 5. Owner's project number or Work Order number.
 - a. Contractor may attach copy of the Work Order form in lieu of project number or Work Order number.
 - 6. Owner's project description or project title as applicable including building or campus name.
 - 7. Labor amounts:
 - a. Indicate labor category as identified in the Contract.
 - b. Indicate hours worked by labor category.
 - c. Indicate labor category hourly rate as identified in the Contract.

- d. Indicate subtotal amount for hours worked times hourly rate for each labor category.
 - e. Indicate total amount as summation of all labor subtotal amounts.
 - 8. Equipment amounts:
 - a. Indicate equipment category as identified in the Contract.
 - b. Indicate chargeable hours by equipment category.
 - c. Indicate equipment category hourly rate as identified in the Contract.
 - d. Indicate subtotal amount for hours worked times hourly rate for each equipment category.
 - e. Indicate total amount as summation of all equipment subtotal amounts.
 - 9. Material amounts:
 - a. Indicate description of material including whether material came from Contractor's stock or purchased for the project.
 - b. Indicate quantity of material.
 - c. Indicate subtotal amount for each material description.
 - d. Indicate total amount as summation of all material subtotal amounts.
 - e. Indicate markup percentage on materials as identified in the Contract.
 - f. Indicate markup amount for materials.
 - g. Indicate total amount for materials plus markup.
 - 10. Indicate total amount of invoice that includes labor, materials, and other amounts such as permits, bonds, etc. as identified in the Contract.
- F. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- G. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- H. Submit two copies of each Application for Payment to the Owner.
- 1. Transmittal letter as specified for submittals in Section 013000.
 - 2. Include the following with the application:
 - a. One copy of certified payroll forms for all Contractor and Subcontractor employees working on the Project Site during payment period.
 - 1) Submit cross-reference information between certified payroll documents and Application for Payment if certified payroll documents are not specific to the Application for Payment or if the Application for Payment is for multiple projects.
 - b. One copy of each material invoice for material purchased for the Work Order (not applicable to Contractor's stock).
 - c. One copy of partial release of liens from major Subcontractors and vendors beginning with second Application for Payment.
 - d. Two copies of affidavits attesting to off-site stored products, if any.
- I. When Owner requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.
- 1. Substantiating information shall include actual invoices substantiating Contractor's stock material costs.
- J. Incorrect or incomplete Applications for Payment:
- 1. Owner will promptly return to Contractor with a written description of which documents are incorrect or incomplete.
 - 2. If, in the opinion of the Owner, the incorrectness or incompleteness of the Application for Payment is minor in character, then the Owner will contact the Contractor to discuss the corrections necessary, make the corrections, and send a corrected copy of the Application for Payment to the Contractor to expedite the approval process.

1.05 HOURLY RATES

A. Labor Hourly Rates:

1. Man hours worked by each labor category shall be recorded each day.
 2. Man hours worked by each worker shall be documented with certified payroll documents and cross referenced with the appropriate labor category defined in the Contract.
- B. Equipment Hourly Rates:
1. Chargeable hours for each equipment item shall be recorded each day.
 2. Equipment requiring specific workers solely assigned to operate the equipment shall have the labor costs included as part of the equipment hourly rate.
 3. Equipment hourly rates that include labor costs shall be noted as such in their description.
- C. Payment includes full compensation for required labor or equipment, including:
1. miscellaneous tools and equipment not specifically itemized as an equipment charge in the Contract.
 2. direct and indirect overhead on labor.
 3. direct and indirect overhead on equipment.
 4. profit.
- D. All mark-ups for subcontracted labor categories shall be included as part of the labor category hourly rate.

1.06 MODIFICATION PROCEDURES

- A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or Subcontractors of changes to the Contract Documents.
- B. Supplementary Instructions: Owner will issue a supplementary instruction prepared by the Architect for minor changes not involving an adjustment to the Contract Sum or Contract Time.
1. Supplementary instructions will be issued directly to the Contractor.
- C. Owner Initiated Changes: Owner will issue a Change Directive document that includes a detailed description of a proposed change with, if necessary, supplementary or revised drawings and specifications, proposed method of price quotation, and proposed change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a price quotation within 7 days.
1. Execution of Change Directives:
 - a. Architect and Contractor shall review the Change Directive and:
 - 1) If in agreement with the proposed methods for changing the Contract Sum or Contract Time, the Architect and Contractor shall approve the Change Directive no later than 2 work days from receipt.
 - 2) If not in agreement with the proposed methods for changing the Contract Sum or Contract Time, Architect or Contractor shall reject the Change Directive and provide reason for the rejection no later than 2 work days from receipt.
 - 3) Owner will reissue Change Directive, if necessary, for approval upon conclusion of negotiations to satisfy the reason for the rejection by the Architect or Contractor.
 - b. Issuance and approval of Change Directive is not an authorization to begin the Work unless the Contract Sum adjustment type is Time & Material.
 2. Execution of Proposals in Response to Change Directives:
 - a. Contractor shall prepare the proposal based on proposed method of price quotation and proposed change in Contract Time described in the approved Change Directive on the Service Contractor Not-To-Exceed Proposal Form and submit the proposal to the Owner.
 - b. Owner and Architect will review proposal and:
 - 1) If in agreement with the proposal, Owner will notify Contractor and approve the Service Contractor Not-To-Exceed Proposal Form no later than 2 work days from receipt.

- 2) If not in agreement with the proposal, Owner will contact Contractor to negotiate disagreement no later than 2 work days from receipt.
 - 3) Contractor will resubmit the proposal upon conclusion of negotiations to satisfy the reason for rejection by the Owner or Architect.
 - 4) Owner will review resubmitted proposal and repeat execution steps described previously or cancel Change Directive if negotiations are unsuccessful.
- D. Contractor Initiated Changes: Contractor may propose a change by submitting a Claim for change, with a statement describing the reason for the Claim, the effect on the Contract Sum or Contract Time or both, and with full documentation supporting the effect on Contract Sum or Contract Time or both and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 6000.
1. Execution of Contractor's Claims:
 - a. Owner and Architect will review Claim and:
 - 1) If in agreement with the proposal, Owner will notify Contractor and approve the Service Contractor Not-To-Exceed Proposal Form no later than 2 work days from receipt.
 - 2) If not in agreement with the proposal, Owner will contact Contractor to negotiate disagreement no later than 2 work days from receipt.
 - 3) Contractor will resubmit the Claim upon conclusion of negotiations to satisfy the reason for rejection by the Owner or Architect.
 - 4) Owner will review Claim and repeat execution steps described previously or void Claim if negotiations prove Claim is invalid or if negotiations are unsuccessful.
- E. Substantiation of Costs: Provide full information required for evaluation.
1. On request, Provide following data:
 - a. Quantities of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
 - d. Justification for any change in Contract Time.
 - e. Credit for deletions from Contract, similarly documented.
 2. Support each Claim for additional costs or time with additional information:
 - a. Origin and date of Claim.
 - b. Dates and times work was performed, and by whom.
 - c. Time records and wage rates paid.
 - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- F. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
- G. Promptly enter changes in Project Record Documents.

1.07 PERMIT, MUNICIPAL SURETY BONDS, AND UTILITY CONNECTION FEE REIMBURSEMENTS

- A. Owner shall reimburse the Contractor for the cost of the main building permits from the following:
 1. Municipality where project is located, if applicable.
 2. St. Louis County, if applicable.
 3. Fire Protection District where project is located, if applicable.
 4. Metropolitan St. Louis Sewer District, if applicable.
 5. All other permits shall be at the cost of the Contractor.
- B. Owner shall reimburse the Contractor for the cost of surety bonds required by the Municipality where the project is located, if applicable.

- C. Owner shall reimburse the Contractor for the cost of connection or tap fees required by utilities, if applicable.
 - 1. Utility inspection fees are not reimbursable and shall be at the cost of the Contractor.
- D. The Contractor shall be reimbursed as follows:
 - 1. The actual cost of the permit, municipal surety bond, and utility connection fee substantiated by a copy of the invoice or payment receipt.
 - 2. The actual labor cost involved in obtaining the permit, municipal surety bond, and utility connection fee substantiated by identifying the number of manhours and the labor rate including overhead and profit for the labor cost.
 - 3. The incremental cost for the increase in the performance and payment bond.
 - 4. The Contractor shall not be entitled to claim any other costs including overhead and profit on the actual cost of the the permit, municipal surety bond, and utility connection fee.
- E. The Contractor shall follow the procedures for Contractor Initiated Changes to make claim for the reimbursement.

1.08 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
 - 1. All closeout procedures specified in Section 017000.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 013000
ADMINISTRATIVE REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preconstruction meeting.
- B. Site mobilization meeting.
- C. Progress meetings.
- D. Construction progress schedule.
- E. Submittals for review, information, and project closeout.
- F. Number of copies of submittals.
- G. Requests for Information (RFI) procedures.
- H. Submittal procedures.
- I. Substance abuse testing.
- J. Contractual submittal summary.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRECONSTRUCTION MEETING

- A. Owner may schedule a meeting after issuing a Work Order if warranted by the scope of the Work.
- B. Attendance Required:
 - 1. Owner.
 - 2. Architect.
 - 3. Contractor.
 - 4. Contractor's Superintendent.
- C. Agenda:
 - 1. Distribution of Contract Documents.
 - 2. Designation of personnel representing the parties to the Contract; Owner, Architect, and Contractor .
 - 3. Scheduling.
 - 4. Progress cleaning, waste removal, and waste recovery.
 - 5. Hazardous materials notification and procedures.
 - 6. Scheduling activities of Owner's independent testing agency.
- D. Record minutes and distribute copies within two days after meeting to participants, with one copy to Architect, Owner, participants, and those affected by decisions made.

3.02 SITE MOBILIZATION MEETING

- A. Owner may schedule a meeting at the Project site prior to Contractor occupancy if warranted by the scope of the Work.
- B. Attendance Required:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Special consultants.
 - 5. Contractor's superintendent.
 - 6. Owner's Tenant Representative.
- C. Agenda:
 - 1. Use of premises by Owner and Construction Manager.

2. Owner's requirements and partial occupancy prior to completion.
 3. Construction facilities and controls provided by Owner and Construction Manager.
 4. Temporary utilities provided by Owner.
 5. Survey and building layout.
 6. Security and housekeeping procedures.
 7. Protection of existing facilities.
 8. Waste removal and waste recovery collection locations.
 9. Schedules.
 10. Application for payment procedures.
 11. Requirements for start-up of equipment.
 12. Inspection and acceptance of equipment put into service during construction period.
- D. Record minutes and distribute copies within two days after meeting to participants, with one copy to Architect, Owner, participants, and those affected by decisions made.

3.03 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at weekly intervals.
- B. The Owner reserves the right to lengthen the interval between progress meetings as project requirements dictate.
- C. The Owner reserves the right to call for special progress meetings if the Construction Manager is falling behind on schedule or is in non-compliance with Contract requirements.
- D. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- E. Attendance Required:
1. Contractor.
 2. Owner.
 3. Architect.
 4. Special Consultants as needed.
 5. CM's Superintendent.
 6. Major Subcontractors as needed.
- F. Agenda:
1. Review minutes of previous meetings.
 2. Review of work progress.
 3. Field observations, problems, and decisions.
 4. Schedule
 - a. Identification of problems that impede, or will impede, planned progress.
 - b. Review of submittals schedule and status of submittals.
 - c. Review of off-site fabrication and delivery schedules, if any.
 - d. Maintenance of progress schedule.
 - e. Corrective measures to regain projected schedules.
 - f. Planned progress during succeeding work period.
 - g. Coordination of projected progress.
 5. Maintenance of quality and work standards.
 6. Effect of proposed changes on progress schedule and coordination.
 7. Safety and security issues.
 - a. Review of worker OSHA 10 Hour Construction Safety & Health Training certification logs status.
 - b. Review of hazardous material notification acknowledgement logs status.
 8. Housekeeping and existing facility protection issues.
 - a. Waste removal and waste recovery.
 9. Review of record document status.
 10. Other business relating to the Work.

- G. Record minutes and distribute copies within two days after meeting to participants, with one copy to Architect, Owner, participants, and those affected by decisions made.

3.04 CONSTRUCTION PROGRESS SCHEDULE

- A. Preliminary schedule, target schedule, and progress schedules may be required by the Owner if warranted by the scope of the Work.
 - 1. Within 7 days after issuance of the Work Order, submit preliminary schedule.
 - 2. Within 3 days after review of preliminary schedule, submit draft of proposed complete target schedule for review.
 - 3. Within 3 days after joint review, submit complete target schedule.
- B. Submit updated schedule showing progress against the target schedule at Owner requested intervals.

3.05 REQUESTS FOR INTERPRETATION (RFI)

- A. Definition: A request seeking one of the following:
 - 1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.
 - 2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.
- C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
 - 1. Prepare a separate RFI for each specific item.
 - a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
 - b. Do not forward requests which solely require internal coordination between subcontractors.
- D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
 - 1. Unacceptable Uses for RFIs: Do not use RFIs to request the following:
 - a. Approval of submittals (use procedures specified elsewhere in this section).
 - b. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract and Section 012000 - Price and Payment Procedures).
 - c. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
 - 2. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
 - 3. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
 - a. The Owner reserves the right to assess the Contractor for the costs (on time-and-materials basis) incurred by the Architect, and any of its consultants, due to processing of such RFIs.
- E. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.

- F. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
 - 1. Response period may be shortened or lengthened for specific items, subject to mutual agreement, and recorded in a timely manner in progress meeting minutes.
- G. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Claim request to Owner.
 - 1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and a new RFI is to be issued forthwith. Identify the relationship with the originating RFI number in the new RFI.
 - 2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
 - 3. Upon receipt of a response, promptly review and distribute it to all affected parties.
 - 4. Notify Architect within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

3.06 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 - 1. Product data.
 - 2. Shop drawings.
- B. Submit for Owner and Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below.

3.07 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Design data.
 - 2. Certificates.
 - 3. Test reports.
 - 4. Inspection reports.
 - 5. Manufacturer's instructions.
 - 6. Manufacturer's field reports.
 - 7. Other types indicated.
- B. Submit for Owner's and Architect's review and knowledge in accordance with SUBMITTAL PROCEDURES article below.

3.08 SUBMITTALS FOR PROJECT CLOSEOUT

- A. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 017800 - Closeout Submittals:
 - 1. Project record documents.
 - 2. Operation and maintenance data.
 - 3. Extended warranties (warranties greater than one year in length).
 - 4. Compliance with prevailing wage law affidavit.
 - 5. OSHA ten hour construction safety training log.
 - 6. Other types as indicated.
- B. Submit for Owner's benefit during and after project completion.

3.09 NUMBER OF COPIES OF SUBMITTALS

- A. Documents for Review:
 - 1. Small Size Sheets, Not Larger Than 11 x 17 : Submit one electronic document to the Owner or submit the number of copies that Contractor requires, plus two copies to the Owner that will be retained by the Owner and the Architect.
 - 2. Larger Sheets, Not Larger Than 24 x 36 inches: Submit one electronic document to the Owner or submit the number of copies that Contractor requires, plus two copies to the Owner that will be retained by the Owner and the Architect.
- B. Documents for Information: Submit one electronic document to the Owner's electronic document management system.

3.10 SUBMITTAL PROCEDURES

- A. General Requirements:
 - 1. Use a separate transmittal for each item.
 - 2. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
 - 3. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on submittal.
 - 4. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
 - a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
 - 5. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
 - a. Deliver submittals to Construction Manager's electronic document management system.
 - 6. Schedule submittals to expedite the Project, and coordinate submission of related items.
 - a. For each submittal for review, allow 14 days excluding delivery time to and from the Contractor.
 - 7. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
 - 8. Provide space for Contractor and Architect review stamps.
 - 9. When revised for resubmission, identify all changes made since previous submission.
 - 10. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
 - 11. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
 - 12. Submittals not requested will be recognized, and will be returned "Not Reviewed",
- B. Product Data Procedures:
 - 1. Submit only information required by individual specification sections.
 - 2. Collect required information into a single submittal.
 - 3. Submit concurrently with related shop drawing submittal.
 - 4. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Shop Drawing Procedures:
 - 1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related work.
 - 2. Use of reproductions of the Contract Documents in digital data form to create shop drawings is only permitted with the expressed consent of the Architect under the terms and conditions solely determined by the Architect.
 - a. Contractor shall contact the Architect directly to obtain the required permissions.

3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.

3.11 SUBMITTAL REVIEW

- A. Submittals for Review: Owner and Architect will review each submittal and comment on any exceptions, or take other appropriate action.
- B. Submittals for Information: Owner and Architect will acknowledge receipt and review. See below for actions to be taken.
- C. Owner's and Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
- D. Architect's and his consultants' actions on items submitted for review or information:
 1. Authorizing purchasing, fabrication, delivery, and installation:
 - a. "Reviewed - No Exceptions"
 - b. "Reviewed - Exceptions Noted"
 - 1) Contractor is authorized to proceed only if the review notations are incorporated.
 2. Not Authorizing fabrication, delivery, and installation:
 - a. "Reviewed - Exceptions Noted - Resubmit"
 - 1) Submittal is not in compliance with some requirements of the Contract Documents or is lacking information necessary to fully review the submittal.
 - 2) Resubmit the submittal with revised item or items, with review notations acknowledged and incorporated.
 - 3) Non-responsive resubmittals may be rejected.
 - b. "Reviewed - Rejected"
 - 1) Submittal is substantially not in compliance with requirements of the Contract Documents.
 - 2) Submit a new submittal complying with requirements of the Contract Documents.
 - c. "Not Reviewed - Not Applicable"
 - 1) Submittal is not required or is not applicable to the Project.
 - 2) Submit a new submittal with applicable documentation, if necessary.

3.12 SUBSTANCE ABUSE TESTING

- A. Objective:
 1. The objective of this Substance Abuse Testing Program is improved job site safety and morale.
 2. This is not intended as a substitute for the Contractor's or Subcontractors' complete written substance abuse policy that is recommended to include other important features, including an employee education and awareness program, a supervisor training program, and an employee assistance program.
- B. Contractual Requirements:
 1. The Contractor shall have and enforce, as a minimum, a written Substance Abuse Program incorporating the testing requirements, terms and conditions set forth in this Substance Abuse Testing paragraph applicable to all its employees and prospective employees in order to be eligible to perform the Owner's work.
 - a. The Contractor and all Subcontractors shall comply with this Substance Abuse Testing paragraph.
 - b. Suppliers, vendors, and visitors are subject to confirmation of their abstinence from the possession or use of substances indicated in this Substance Abuse Testing paragraph.
 2. Programs which meet the requirements of this Substance Abuse Testing paragraph include:
 - a. St. Louis Construction Industry Substance Abuse Consortium.

- b. Unified Drug and Alcohol Testing Policy and Procedure for the Pipefitters Local Union Number 562 and the Mechanical Contractors Association of St. Louis
 - c. Substance Abuse Testing Program for the Electricians Local Union Number 1 and the National Electrical Contractors Association of St. Louis.
 - d. Drug and Alcohol Testing Program of the Carpenters' District Council of Greater St. Louis and Vicinity.
 - e. Drug and Alcohol Testing Program of the Sheet Metal Workers Local Union 36.
 - f. Eastern Missouri Laborers District Council Substance Abuse Consortium.
- 3. Submittal to the Owner of written evidence of enrollment in any of the previously listed programs shall satisfy the requirements with regard to pre-engagement and random testing.
- 4. The Substance Abuse Program will apply to the Contractor and Subcontractors' employees on the Owner's site of construction including workers, new hires, replacements, and supervisory personnel.
- 5. No employee or prospective employee of a Contractor or Subcontractor will be permitted to work on the Owner's site of construction unless such employee has submitted to testing as required and unless the results of such testing are negative as hereinafter defined.
- 6. The Contractor and each Subcontractor shall train its employees in methods that will allow them to recognize substance abusers.
- 7. Supervisory employees of the Contractor or Subcontractor shall be trained to take action, and to confront a substance abuser in a manner consistent with generally accepted training procedures.
- 8. The Contractor and each Subcontractor shall furnish to the Owner a copy of its Substance Abuse Program for review and acceptance, prior to commencement of the Work on the Owner's site of construction.
- 9. The costs of implementing the respective Substance Abuse Programs shall be borne by each respective Contractor or Subcontractor.
- 10. Suppliers, vendors, and visitors shall sign an acknowledgement indicating their abstinence from substance abuse, and their continued avoidance of violations of this paragraph 3.10 at the Owner's site of construction.
 - a. The acknowledgement form is in Section - 006000.
- 11. In the event that an incident/accident occurs and causes the Owner, Contractor, or Subcontractor to believe that substance abuse testing should occur, suppliers, vendors, and visitors agree to submit to a substance abuse screen pursuant to the terms of this Substance Abuse Testing paragraph.
 - a. Refusal to submit to substance abuse testing when requested will be grounds for the Owner, Contractor, or Subcontractor to have the supplier, vendor, or visitor permanently barred from the site of construction.
- C. Definitions:
 - 1. Positive Tests: Test results indicating the presence of legal or illegal substances at or above the Confirming Limits as set forth in this Substance Abuse Testing paragraph sub-paragraph E.1 below.
 - 2. Negative Tests: Test results indicating that legal or illegal substances are at levels below the Confirming Limits as set forth in this Substance Abuse Testing paragraph sub-paragraph E.1 below.
 - 3. Pre-Engagement Testing: Testing for all substances other than alcohol as set forth in this Substance Abuse Testing paragraph sub-paragraph E.1 below conducted by the Contractor or Subcontractors for their employees or prospective employees within 120 days prior to their appearance on the Owner's site of Construction.
 - a. This requirement will be waived if the employee is an active member of an Owner approved pool.

4. Mandatory Follow-up Testing: Testing for all substances other than alcohol set forth in this Substance Abuse Testing paragraph sub-paragraph E.1 below, conducted by the respective Contractor or Subcontractor for their employees at a rate to insure that 100 percent of all workers are tested within a 2 year period.
 - a. Employees tested under the Random Testing requirements shall have the 2 year period begin with the Random Testing date.
 5. Random Testing: Testing for all substances set forth in this Substance Abuse Testing paragraph sub-paragraph E.1 below, conducted by the respective Contractor or Subcontractors for their employees at random times and with a random selection rate of at least 50 percent of Contractors' or Subcontractors' employees annually.
 - a. The frequency of Random Testing for a Contractor or Subcontractors' job of less than 1 year will be adjusted proportionately to the duration of the job, but in any event at least one employee per month shall be tested.
 - b. Employees selected for random testing shall report to the drug testing laboratory or collection site and provide a specimen the same day that they are notified that they have been selected.
 6. For Cause Testing: Testing for all substances set forth in this Substance Abuse Testing paragraph sub-paragraph E.1 below, conducted by the Contractor or Subcontractors for their employees whose behavior on the Owner's site of construction causes either the Owner's or the respective Contractor's or Subcontractors' supervisory personnel to reasonably conclude that such behavior may result from substance abuse.
 7. Post-Accident/Incident Testing: Testing for all substances set forth in this Substance Abuse Testing paragraph sub-paragraph E.1 below, conducted by the Contractor or Subcontractors for their employees involved in any accident involving off-site medical treatment or any property damage.
 - a. In addition, first aid cases, or "near misses" in which injury or property damage is narrowly avoided may require testing as determined by the Owner, Contractor or Subcontractor.
- D. Testing Requirements:
1. The Contractor or Subcontractor shall perform pre-engagement, mandatory follow-up, random, for cause, and post-accident/incident testing as follows:
 - a. Drug Testing:
 - 1) A screening test ("quickie test") may be performed on-site or at an approved testing facility, using a Food and Drug Administration (FDA) approved device for instant testing.
 - (a) Persons with negative tests will be allowed to start work immediately.
 - (b) Persons testing non-negative will not be allowed to begin work pending confirmation via the standard test.
 - (c) If a screening test is used, specimens shall be collected and submitted for testing per this Substance Abuse Testing paragraph, sub-paragraph D.1.a.2) below.
 - (d) Upon approval, a device from the approved listing provided by the Department of Transportation (DOT) may also be used.
 - 2) Standard drug testing must be conducted by a SAMHSA (Substance Abuse Mental Health Services Administration) certified laboratory with test results interpreted by a licensed medical review officer (MRO).
 - b. Alcohol Testing:
 - 1) The initial screen tests for alcohol shall be performed by using either a saliva test or a breathalyzer test comparable to the type used by law enforcement officials.
 - 2) Alcohol confirmatory tests shall be performed by using either a blood alcohol test or a breathalyzer test comparable to the type used by law enforcement officials.
 2. Evidence of Testing:

- a. Evidence of the negative test results of individual employees (the identity of employees testing positive shall be kept confidential) shall be furnished to the Owner, prior to commencement of work by the employer or individual employee and promptly after performance of any subsequent testing required by this Substance Abuse Testing paragraph, in the form of:
 - 1) Electronic databases, all negative test results shall be included in an electronic database that will be accessible to employers and Owners. The database will include the employee's name, craft, identification number, and the date of the test.
 - 2) A certificate not older than 120 calendar days prior to the Notification To Proceed for pre-employment testing, signed by the testing laboratory, setting forth the nature and results of tests performed, including the employee's name, identification number, craft, and the date of the test.
 - 3) An identification card, signed by the respective Contractor or Subcontractor and issued to the individual employee, setting forth employee's name, and the date, nature and results of testing as reported on a certificate issued by the testing laboratory, the name of which shall also appear on the identification card; provided the affected employee authorized the issuance of such identification card.
 - 4) Documentation not older than 120 calendar days that the Contractor or Subcontractor is enrolled in an approved program identified in this Substance Abuse Testing paragraph, sub-paragraph B.2.
 - 5) Documentation not older than 120 calendar days of Contractor or Subcontractor company program that specifically identifies compliance with the requirements of this Substance Abuse Testing paragraph and encompasses 100 percent mandatory participation by Contractor or Subcontractor employees.

E. Threshold Limits:

1. Under the five-panel test, the minimum substance abuse testing requirements for the following substances are:

SUBSTANCE	THRESHOLD LIMIT	GC/MS CONFIRMING LIMIT
Alcohol	0.04%	0.04%
Amphetamines	1,000 ng/ml	500 ng/ml
Cocaine Metabolites	300 ng/ml	150 ng/ml
Marijuana Metabolites	50 ng/ml	15 ng/ml
Opiate Metabolites	2,000 ng/ml	300 ng/ml
Phencyclidine	25 ng/ml	25 ng/ml

2. The Owner will accept, although not required, ten-panel tests in lieu of five-panel tests. Under the ten-panel test, the minimum substance abuse testing requirements for the following substances are:

SUBSTANCE	THRESHOLD LIMIT	GC/MS CONFIRMING LIMIT
Alcohol	0.04%	0.04%
Amphetamines	1,000 ng/ml	500 ng/ml
Cocaine Metabolites	300 ng/ml	150 ng/ml
Marijuana Metabolites	50 ng/ml	15 ng/ml
Opiate Metabolites	2,000 ng/ml	300 ng/ml
Phencyclidine	25 ng/ml	25 ng/ml
Barbiturates	300 ng/ml	200 ng/ml
Benzodiazepines	300 ng/ml	200 ng/ml
Methadone	300 ng/ml	200 ng/ml
Methaqualone	300 ng/ml	200 ng/ml

Propoxyphene	300 ng/ml	200 ng/ml
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3. Additionally, minimum-testing requirements for "Drugs of Choice" may be established on an individual job site basis. "Drugs of Choice" are defined as substances, in addition to the basic list set forth above, that may be found to be in significant use. If implemented, the Owner will pay for the additional testing.

F. Compliance Procedure:

1. The Owner reserves the right to audit any Substance Abuse Program to verify compliance results within twenty-four (24) hours of the Owner's notification of intent to audit, and the Owner shall have free right of access to all relevant records of the Contractor and its Subcontractors and suppliers for this purpose, provided such record disclosures are within the scope of the Department of Health and Human Services (DHHS) guidelines pertaining to confidentiality of employee records.
2. The Contractors' or Subcontractors' employees who receive a positive test result shall immediately leave the Owner's site of construction.
3. The Contractors' or Subcontractors' employees who receive a confirmatory positive test result shall be prohibited from returning to any of the Owner's sites of construction until such time that said employee has successfully completed an assessment/substance abuse treatment program as submitted by the employer that is acceptable to the Owner, but no sooner than 60 days, tests negative, and if said employee agrees to submit to substance abuse testing, without prior notice, at least 1 time per quarter (with dated certificates), for at least 3 years from the date of return or the duration of the Contract, whichever is less.

G. Cooperation and Review:

1. The Contractor's Substance Abuse Program (and the Substance Abuse Programs of its Subcontractors) shall be furnished to the Owner for review prior to starting the Work on site. The Owner reserves the right to review and have the Contractor's or Subcontractors' Substance Abuse Program amended prior to acceptance.
2. The Contractor or Subcontractors shall provide the Owner with a monthly summary report of Program compliance.
3. The requirements of this program related to post accident/incident testing after an injury or accident and for cause testing may be met through implementation of the Contractor's program. However, the Owner reserves the right in any circumstance to require that Contractor or Subcontractor employees be tested for cause or after an injury or accident.

H. Submittals:

1. Submit to Owner as a single Submittal.
2. Submittal will be stored in the Owner's electronic document management system in the Contractor's Contracts Page in the Contract Submittals table for this Project.
3. Substance abuse company policies for Contractor and all Subcontractors as one submittal package.
4. Substance abuse evidence of testing as required by this Substance Abuse Testing paragraph sub-paragraph D.2 for Contractor and all Subcontractors as one submittal package.
5. Submit no later than 28 days from Notice to Proceed date but prior to beginning the Work on site.
6. For Contractor and Subcontractor employees that are added to workforce after initial submittal and are not in an approved program identified in this Substance Abuse Testing paragraph, sub-paragraph B.2 or an approved Contractor or Subcontractor program, submit evidence of testing as an electronic document attached to an e-mail prior to employee beginning the Work on site.

3.13 CONTRACTUAL SUBMITTAL SUMMARY

A. Section 005200 submittals:

1. Agreement Between Owner and Contractor

- a. Submit 2 signed originals.
 - b. Submit no later than 7 days after receipt of Agreement from Owner.
- B. Section 007200 submittals:
 - 1. Performance and Payment Bonds
 - a. Submit 1 signed original.
 - b. Submit within 14 days of Notice To Proceed in the amount requested by the Owner.
 - c. Submit within 14 days of the anniversary date of the Agreement in the amount requested by the Owner.
 - 2. Certificates of Insurance
 - a. Submit 1 copy.
 - b. Submit no later than 7 days after receipt of Agreement from Owner.
 - c. Submit no later than 7 days after any change in coverage.
 - 3. Asbestos Notification Acknowledgement Forms
 - a. Submit 1 copy.
 - b. Submit form signed by all workers that will be working on the Project prior to beginning the Work.
 - c. Submit updated form with signatures appended to original signed form whenever additional workers are to be added to the workforce on the Project.
- C. Section 012000 submittals:
 - 1. Applications for Payment
 - a. Submit 2 copies of partial or final Applications for Payment for each Work Order.
 - b. Signed by a corporate officer.
 - c. Final Application for Payment is due no later than 30 days after the Work Order is completed.
 - 2. Certified Payrolls
 - a. Submit 1 copy.
 - b. Submit with each partial or final Application for Payment for each Work Order.
 - c. Submit Contractor and Subcontractors certified payrolls on forms accepted by the Missouri Department of Labor for employees working on the Work Order for which the Application for Payment is made.
 - 3. Prevailing Wage Compliance Affidavit
 - a. Submit 1 copy.
 - b. Submit with final Application for Payment for each Work Order.
 - 4. Partial Lien Waivers
 - a. Submit 1 copy.
 - b. Submit with each partial Application for Payment for each Work Order beginning with the second partial Application for Payment.
 - c. Partial lien waivers are required from the Contractor and each Subcontractor.
 - 5. Final Lien Waivers
 - a. Submit 1 copy.
 - b. Submit with final Application for Payment for each Work Order.
 - c. Final lien waivers are required from the Contractor and each Subcontractor.
- D. Section 013000 submittals:
 - 1. Preconstruction, Site Mobilization, and Progress Meeting Minutes
 - a. Submit 1 copy.
 - b. Submit no later than 2 days after meeting.
 - 2. Permits
 - a. Submit 1 copy.
 - b. Submit no later than 7 days after receipt of the permit from the authority having jurisdiction.
 - 3. Product Data, Shop Drawings, Samples, Certificates, Manufacturer's Instructions, Manufacturer's Field Reports, and Erection Drawings

- a. Submit 1 electronic copy or 2 copies plus quantity required to be returned to Contractor.
 - b. Submit when required in individual specification sections or where indicated on drawings and at appropriate times to meet construction schedule.
- 4. Contractor and Subcontractor Substance Abuse Policies
 - a. Submit 1 copy.
 - b. Submit no later than 28 days from Notice to Proceed date but prior to beginning the Work on site for Contractor and each Subcontractor.
- 5. Contractor and Subcontractor Substance Abuse Evidence of Testing
 - a. Submit 1 copy.
 - b. Submit no later than 28 days from Notice to Proceed date but prior to beginning the Work on site for Contractor and each Subcontractor.
- E. Section 014100 submittals:
 - 1. Immigration Documentation Certification
 - a. Submit 1 copy.
 - b. Submit prior to beginning any of the Work.
 - 2. OSHA Ten Hour Construction Safety Training Log
 - a. Submit 1 copy.
 - b. Submit form completed for all workers that will be working on the Project prior to beginning the Work.
 - c. Submit updated form with new workers appended to original form whenever additional workers are to be added to the workforce on the Project.
- F. Section 016000 submittals:
 - 1. Product Substitution Request
 - a. Submit 1 copy.
 - b. Submit when applicable.
 - 2. Value Engineering Proposal
 - a. Submit 1 copy.
 - b. Submit when applicable.
- G. Section 017419 submittals:
 - 1. Waste Disposal Reports
 - a. Submit 1 copy.
 - b. Submit with final Application for Payment.
- H. Section 017800 submittals:
 - 1. Record Drawings
 - a. Submit 2 copies.
 - b. Submit with final Application for Payment.
 - 2. Operations and Maintenance Manuals
 - a. Submit 2 copies.
 - b. Submit with final Application for Payment.

END OF SECTION

**SECTION 013553
SECURITY PROCEDURES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Security measures including formal security program, entry control, personnel identification, and miscellaneous restrictions.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: use of premises and occupancy.
- B. Section 015000 - Temporary Facilities and Controls: Temporary lighting.

1.03 SECURITY PROGRAM

- A. Protect Work , existing premises and Owner's operations from theft, vandalism, and unauthorized entry.
- B. Initiate program in coordination with Owner's existing security system at project mobilization.
- C. Maintain program throughout construction period until Owner occupancy.

1.04 ENTRY CONTROL

- A. Restrict entrance of persons and vehicles into Project site and existing facilities.
- B. Allow entrance only to authorized persons with proper identification.
- C. Maintain log of workers and visitors, make available to Owner on request.
- D. Owner will control entrance of persons and vehicles related to Owner's operations.

1.05 SECURITY IDENTIFICATION

- A. Provide identification badge to each person authorized to enter premises.
- B. All Contractor or Subcontractor employees working on the Project site will be required to obtain security identification badges before coming to the Project site.
- C. **Failure of the Contractor or Subcontractor to enforce these security identification procedures may lead to a ban on future work with the Owner in addition to notices of non-performance.**
- D. Badges may be obtained 24 hours a day, 7 days a week, at the Parkway School District Security Office, located in the District Operations Building on the Central High School Campus at 363 North Woods Mill Road, Chesterfield, Missouri 63017.
- E. To obtain a security identification badge, the Contractor or Subcontractor employee shall be required to give their full name, present personal identification verifying their name (e.g., driver's license), give their employer's company name, and present documentation verifying their employment with the company (e.g., business card, identification letter on company letterhead, etc.).
 - 1. During normal working hours, employment confirmation may be made by a confirming telephone call to the company.
- F. Security identification badge must be kept with the Contractor or Subcontractor employee and prominently displayed while they are on the Project site.
 - 1. The Contractor or Subcontractor employee shall prior to or immediately upon arriving at the project site to begin their work, report to the Contractor's Superintendent to present the their security identification badge and shall record the badge number on the Security Badges & OSHA 10 Hour Training Log form provided by the Contractor.
 - 2. The security identification badge may be temporarily removed from prominent display if the security identification badge will pose a safety threat to the Contractor or Subcontractor employee as the employee carries out the Work.

3. If the Contractor or Subcontractor employee temporarily removes the security identification badge from prominent display for safety purposes, the Contractor or Subcontractor employee shall promptly present the security identification badge to any employee of the Owner that requests to see the security identification badge.
- G. Failure to promptly present the security identification badge shall be grounds for instant removal of the Contractor or Subcontractor employee from the Project site until the security identification badge can be presented.
- H. If the Contractor or Subcontractor employee fails to present the security identification badge a second time, the Owner will request the Contractor or Subcontractor employee to be removed from the Project site permanently.
- I. Require return of badges at expiration of their employment on the Work.

1.06 SUBMITTALS

- A. Owner's Standard Security Badges & OSHA 10 Hour Training Log Form is in Section 006000 - Project Forms.
- B. Submit a copy of the Owner's Standard Security Badges & OSHA 10 Hour Training Log required under paragraph 1.05.F.1 of this Section prior to submitting Final Application for Payment or no later than 42 days from Substantial Completion, whichever comes first.

1.07 RESTRICTIONS

- A. Do not allow cameras on site or photographs taken except by written approval of Owner.
- B. Do not work prior to 6:00 a.m. or after 11:00 p.m. Monday through Friday within enclosed facility without prior approval of Owner.
- C. Do not work on site or on exterior of facility outside of times allowed by local municipality or county ordinance.
- D. Do not work on Saturdays, Sundays, or holidays without prior approval of Owner.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 014000
QUALITY REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submittals.
- B. References and standards.
- C. Inspection agencies and services.
- D. Control of installation.
- E. Tolerances.
- F. Owner's required inspections.
- G. Manufacturers' field services.
- H. Defect Assessment.

1.02 RELATED REQUIREMENTS

- A. Document 007200 - General Conditions: Inspections and approvals required by public authorities.
- B. Section 013000 - Administrative Requirements: Submittal procedures.
- C. Section 014216 - Definitions.
- D. Section 016000 - Product Requirements: Requirements for material and product quality.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Design Data: Submit for Owner's and Architect's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's and Architect's information.
- C. Test Reports: After each test/inspection, promptly submit one electronic copy of report to Contractor and to Owner's electronic document management system.
 - 1. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Name of inspector.
 - d. Date and time of sampling or inspection.
 - e. Identification of product and specifications section.
 - f. Location in the Project.
 - g. Type of test/inspection.
 - h. Date of test/inspection.
 - i. Results of test/inspection.
 - j. Compliance with Contract Documents.
 - k. When requested by Owner or Architect, provide interpretation of results.
 - 2. Test report submittals are for Owner's and Architect's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's and Architect's information.
- D. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Owner's electronic document management system.
 - 1. Indicate material or product complies with or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
 - 2. Certificates may be recent or previous test results on material or product, but must be acceptable to Owner and Architect.

- E. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- F. Manufacturer's Field Reports: Submit reports for Owner's and Architect's benefit as contract administrator or for Owner's and Architect's information.
 - 1. Submit report within 14 days of observation to Owner's electronic document management system for Owner's and Architect's information.
 - 2. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.
- G. Erection Drawings: Submit drawings for Owner's and Architect's benefit as contract administrator or for Owner's and Architect's information.
 - 1. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.
 - 2. Data indicating inappropriate or unacceptable Work may be subject to action by Architect or Owner.

1.04 REFERENCES AND STANDARDS

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in any reference document.

1.05 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Owner will employ and pay for services of an independent testing agency to perform specified testing and inspection unless specifically indicated in individual specification sections to be the responsibility of the Contractor.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

- E. Have work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

3.03 TESTING AND INSPECTION

- A. See individual specification sections for testing and inspection required.
- B. Testing Agency Duties:
 - 1. Test samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 - 3. Perform specified sampling and testing of products in accordance with specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Owner, Architect, and Contractor of observed irregularities or non-conformance of Work or products.
 - 6. Perform additional tests and inspections required by Owner or Architect.
 - 7. Attend preconstruction meetings and if request by Owner attend progress meetings.
 - 8. Submit reports of all tests/inspections specified.
- C. Limits on Testing/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the Work.
 - 3. Agency may not assume any duties of Contractor.
 - 4. Agency has no authority to stop the Work.
- D. Contractor Responsibilities:
 - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
 - 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 - 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
 - 4. Notify Owner and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
 - 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
 - 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

- E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Owner.
- F. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

3.04 OWNER'S REQUIRED INSPECTIONS

- A. Owner requires inspections by Owner's personnel prior to execution of parts of the Work that will close off the Work from future inspection.
- B. Contractor shall notify Owner telephonically and directly (voice mail not allowed) at least 24 hours in advance of performing the Work requiring inspections by Owner.
- C. If Contractor begins the Work requiring inspections by Owner prior to the expiration of the 24 hour notification period, Owner will require Contractor to uncover the Work at Contractor's cost.
- D. Contractor may proceed with the Work requiring inspections by Owner upon expiration of the 24 hour notification period whether the Owner has representatives on site or not.
- E. The following Work requires inspections by Owner:
 - 1. All underground utilities prior to backfilling.
 - 2. All underground utility trenches prior to backfilling over tracer warning tape.
 - 3. All aggregate base courses prior to placement of asphalt or concrete surfaces.
 - 4. All final graded areas prior to installation of sod or seeding.
 - 5. All segmental block retaining walls prior to backfilling courses below grade.
 - 6. All segmental block retaining walls prior to backfilling first level of geo-grid reinforcement.
 - 7. Spaces above ceilings before hanging support grids.
 - 8. Walls containing sanitary sewer, storm sewer, water, fire sprinkler, heating water supply or return, and any other piping conveying liquid under gravity flow or pressure flow prior to enclosing the wall on both sides.
 - 9. Walls containing sanitary vent, natural gas, compressed air, pneumatic control and any other piping or tubing conveying gaseous material prior to enclosing the wall on both sides.
 - 10. Prior to conducting any pressure tests on systems.
 - 11. All roof curbs prior to installing mechanical equipment on the curbs.
 - 12. All mechanical equipment to be installed on roof curbs prior to installing on the curbs.
 - 13. All electrical cable splices prior to installing equipment or covers over the electrical cable splices

3.05 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance equipment, and training as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Owner's electronic document management system 30 days in advance of required observations.
 - 1. Observer subject to approval of Architect.
 - 2. Observer subject to approval of Owner.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.06 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not conforming to specified requirements at Contractor's cost.
- B. If, in the opinion of Owner, it is not practical to remove and replace the work, Owner will direct an appropriate remedy or adjust payment.

END OF SECTION

**SECTION 014100
REGULATORY REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Owner regulatory requirements.
- B. County, Municipality, and Fire District regulatory requirements.
- C. State regulatory requirements.
- D. Federal regulatory requirements.

1.02 OWNER

- A. No Tobacco Use Policy:
 - 1. Owner has adopted a tobacco free site policy.
 - 2. No tobacco products may be used in the Owner's facilities or on the Owner's grounds.
 - 3. Any Contractor or Subcontractor employee discovered violating this policy may be required to leave the Project site and may not be allowed to return to the Project.
- B. No Firearms Policy:
 - 1. Owner has adopted a firearms free site policy.
 - 2. No firearms may be brought in the Owner's facilities or on the Owner's grounds.
 - 3. Any Contractor or Subcontractor employee discovered violating this policy may be required to leave the Project site and may not be allowed to return to the Project.
- C. Alcohol and Controlled Substances Policy:
 - 1. Owner has adopted a alcohol and controlled substance free site policy.
 - 2. No alcohol or controlled substances may be brought in the Owner's facilities or on the Owner's grounds.
 - a. Exception: Controlled substances prescribed by a doctor specifically for the use of the Contractor or Subcontractor employee in the original prescription container will be allowed.
 - 3. Any Contractor or Subcontractor employee discovered violating this policy may be required to leave the Project site and may not be allowed to return to the Project.

1.03 COUNTY, MUNICIPALITY, AND FIRE DISTRICT

- A. Regulatory requirements applicable to this project are the following:
- B. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines.
- C. ADA Standards - 2010 ADA Standards for Accessible Design.
- D. 29 CFR 1910 - Occupational Safety and Health Standards.
- E. County of St. Louis amendments to some or all of the following.
- F. Municipality where the Project is located amendments to some or all of the following.
- G. Zoning Code: St. Louis County or Municipality where the project is located.
- H. ICC A117.1 - Accessible and Usable Buildings and Facilities.
- I. ICC (IBC) - International Building Code.
- J. ICC (IBC) - ICC International Existing Building Code, 2009.
- K. IAPMO (UPC) - Uniform Plumbing Code.
- L. ICC (IMC) - International Mechanical Code.
- M. ICC (IFGC) - International Fuel Gas Code.
- N. NFPA 70 - National Electrical Code.
- O. Elevator Code: State of Missouri and County of St. Louis.

- P. ICC (IECC) - International Energy Conservation Code.
- Q. Erosion and Sedimentation Control Regulations: Most recent edition adopted by Authority Having Jurisdiction, including all applicable amendments and supplements.

1.04 STATE

A. Prevailing Wage Law:

1. Contractor and Subcontractors shall comply with the requirements of this paragraph 1.04 and Section 290.220 RSMo which provides that "a wage of no less than the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed, shall be paid to all workers employed by or on behalf of any public body engaged in public works exclusive of maintenance work."
2. Contractor shall forfeit to the Owner the sum of One Hundred Dollars (\$100.00) for each worker employed, for each calendar day, or portion thereof such worker is paid less than the said stipulated rates for any work done under this Contract, by the Contractor or by any Subcontractor to the Contractor.
3. Contractor shall include provisions in all bonds to guarantee the faithful performance of the prevailing wage requirements specified herein.
4. Contractor shall post in a prominent and easily accessible place at the Project Site during the full time that any worker shall be employed on the Project a clearly legible statement of all prevailing hourly wage rates to be paid to all workers employed in order to execute the Contract and perform the Work.
5. Owner may request from time to time certified copies of Contractor's payroll to ascertain if Contractor is in compliance.
6. Contractor shall execute an affidavit stating compliance with the prevailing wage law upon completion of the Project and before final payment request.
 - a. The affidavit form is in Section 006000 - Project Forms.
7. The Contractor and each Subcontractor shall maintain accurate records pertaining to wages paid all workers employed on the Project within the State of Missouri for a period of not less than 1 year following Final Acceptance by Owner.
8. Wage Rate Determination for this Project is attached following this section.
9. Submittals:
 - a. Contractor will execute an affidavit stating compliance with the prevailing wage law upon completion of the project and before final payment request.
 - b. The affidavit form is in Section 006000 - Project Forms.
 - c. Submit affidavit form prior to submitting Final Application for Payment or no later than 42 days from Substantial Completion, whichever comes first.

B. Construction Safety Training Law:

1. Contractor and Subcontractors shall comply with the requirements of 1.04 and Section 290.220 RSMo which provides that "any Contractor for any public body for purposes of construction of public works and any Subcontractor to such Contractor shall provide a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program [the program] for their on-site employees which includes a course in construction safety and health approved by OSHA or a similar program approved by the department [of labor] which is at least as stringent as an approved OSHA program, unless such employees have previously completed the required program".
2. Contractor and Subcontractors shall require all on-site workers to complete the ten-hour training program or such employees must hold documentation of prior completion of the program.
 - a. Contractor shall require every on-site worker to report to the Contractor's Project Superintendent and produce documentation of successful completion of the program upon the on-site worker's first day working on the Project Site.

- b. Contractor shall maintain a log of on-site workers that includes the worker's name, worker's signature, date worker began work on Project Site, company name employing worker, and training certification number on Owner's Standard OSHA 10 Hour Construction Safety & Health Training Log Form .
 - c. Contractor and Subcontractors shall require all on-site workers to carry documentation of successful completion of the program at all times while working on Project Site and present the documentation to the Owner's Representative when requested.
- 3. Contractor and Subcontractors shall require all on-site workers who have not previously completed the program to complete the program within sixty calendar days of beginning work on the Project.
 - a. Any on-site worker who cannot produce documentation of successful completion of the program as required by paragraph 1.04.B.2 of this Section shall produce documentation of successful completion of the program within twenty calendar days of the initial request to present documentation.
 - b. Any on-site worker who fails to present the documentation of successful completion of the program within twenty calendar days shall be removed from the Project until such time as the on-site worker can present the documentation of successful completion of the program.
- 4. Contractor shall forfeit as a penalty to the Owner two thousand five hundred dollars (\$2,500.00) plus one hundred dollars (\$100.00) for each employee employed by the Contractor or Subcontractor for each calendar day, or portion thereof, such employee is employed without the required training.
 - a. The penalty will not begin to accrue until the time period in paragraphs 1.04.3 and 1.04.3.a of this Section have elapsed.
 - b. Owner will withhold and retain therefrom all sums and amounts due and owing as a result of any violation of Section 292.675 RSMo when making payments to the Contractor under the Contract.
 - c. Contractor may withhold from any Subcontractor sufficient sums to cover any penalties the Owner has withheld from the Contractor resulting from the Subcontractor's failure to comply with the terms of this Section.
 - 1) If the Contractor has made payment to the Subcontractor without withholding, the Contractor may recover from the Subcontractor the amount of the penalty resulting from the fault of the Subcontractor in an action maintained in the circuit court in the county in which the Project is located.
- 5. Submittals:
 - a. Owner's Standard OSHA 10 Hour Construction Safety & Health Training Log Form is in Section 006000 - Project Forms.
 - b. Submit a copy of the Owner's Standard OSHA 10 Hour Construction Safety & Health Training Log required under paragraph 1.04.B.2.b of this Section prior to submitting Final Application for Payment or no later than 42 days from Substantial Completion, whichever comes first.

1.05 FEDERAL

- A. Immigration Documentation:
 - 1. The Immigration Reform and Control Act of 1986 ("IRCA") requires all U.S. employers to verify the employment eligibility and identity of all employees as of November 6, 1986.
 - a. This includes the verification of the individual's identity and work eligibility.
 - b. The IRCA makes it unlawful for United States employers to knowingly hire or continue to employ unauthorized workers.
 - c. Whether the illegal employment is intentional or merely due to an oversight or lack of knowledge, the employer may still be subject to fines as defined by the Department of Homeland Security.
 - 2. Employer Responsibility:

- a. It is the employer's responsibility to ensure that the appropriate documentation is provided to every new employee hired after November 6th, 1986.
 - b. There are stiff penalties for not being able to provide Form I-9 for all employees upon request.
 - c. The employer has the right to refuse the employee their job if they are unable to furnish the required documents.
 - d. There are certain exceptions as to who Form I-9 is applicable for, such as independent contractors, employees hired from employment agencies, and employees hired before November 7, 1986.
3. Penalties for non compliance with Form I-9:
 - a. Employers who fail to properly complete, retain, or make I-9 Forms available for inspection, face fines ranging from one hundred dollars (\$100.00) to one thousand one hundred dollars (\$1,100.00) per individual I-9.
 - b. For employers who knowingly hire or knowingly continue to employ unauthorized workers, civil penalties range from two hundred fifty dollars (\$250.00) to eleven thousand dollars (\$11,000.00) per violation.
 - c. For employers engaging in a pattern or practice of knowingly hiring or continuing to employ unauthorized workers, criminal penalties can be as much as three thousand dollars (\$3,000.00) per unauthorized employee and/or 6 months of imprisonment.
 4. Employee Responsibility:
 - a. Even though the employer is responsible for providing a newly hired employee with Form I-9, the new employee must still complete Section 1 of Form I-9 by the end of the first day of work to be in compliance with the IRCA.
 - b. In the event that the company is not aware of this legal requirement, it is strongly recommended that any new employee provide the employer with Form I-9 to ensure that his or her new workplace is in compliance with federal regulations.
 5. Genuineness of work eligibility and identity documents:
 - a. The employer must review the genuineness of the documents provided the employee. Employers may encounter the following two scenarios:
 - 1) A document accepted is not genuine
 - 2) The document accepted is genuine but does not belong to the person that provided it
 - b. The employer can refuse to accept a document that does not appear to be genuine.
 - c. If the prospective new employee cannot provide an acceptable document, he or she should not be allowed to continue to work.
 6. Submittals:
 - a. Contractor and Subcontractors shall submit a letter on their respective company letterhead, signed by authorized representative of the Contractor or Subcontractor is in compliance with the IRCA and that I-9 forms and supporting documentation are on file as required.
 - b. Submit certification within 28 days from Notice to Proceed date but prior to beginning the Work on Project Site.

1.06 RELATED REQUIREMENTS

- A. Section 014000 - Quality Requirements.

1.07 QUALITY ASSURANCE

- A. Contractor's Designer Qualifications: Refer to Section - 014000 - Quality Requirements.

PART 2 PRODUCTS - NOT USED

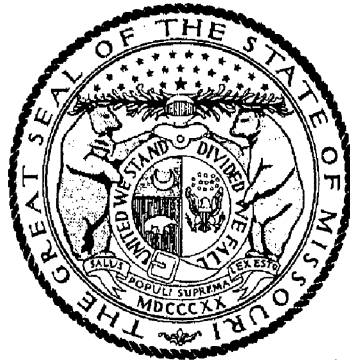
PART 3 EXECUTION - NOT USED

END OF SECTION

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

Annual Wage Order No. 31

Section 100
ST. LOUIS COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by

Todd Smith, Director
Division of Labor Standards

Filed With Secretary of State: March 8, 2024

Last Date Objections May Be Filed: April 8, 2024

Prepared by Missouri Department of Labor and Industrial Relations

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	\$67.80
Boilermaker	\$42.03*
Bricklayer-Stone Mason	\$62.04
Carpenter	\$64.31
Lather	
Linoleum Layer	
Millwright	
Pile Driver	
Cement Mason	\$57.86
Plasterer	
Communication Technician	\$62.59
Electrician (Inside Wireman)	\$75.44
Electrician Outside Lineman	\$42.03*
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	\$42.03*
Glazier	\$66.98
Ironworker	\$70.24
Laborer	\$53.79
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	\$57.61
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	\$69.55
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	\$54.63
Plumber	\$77.88
Pipe Fitter	
Roofer	\$57.83
Sheet Metal Worker	\$73.78
Sprinkler Fitter	\$82.11
Truck Driver	\$42.03*
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. The public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title as defined in RSMo Section 290.210.

Heavy Construction Rates for
ST. LOUIS County

Section 100

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	\$64.02
Millwright	
Pile Driver	
Electrician (Outside Lineman)	\$78.52
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	\$54.45
General Laborer	
Skilled Laborer	
Operating Engineer	\$70.83
Group I	
Group II	
Group III	
Group IV	
Truck Driver	\$50.95
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate Sheet.

*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

OVERTIME and HOLIDAYS

OVERTIME

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, **"overtime work"** shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

HOLIDAYS

January first;
The last Monday in May;
July fourth;
The first Monday in September;
November eleventh;
The fourth Thursday in November; and
December twenty-fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.

SECTION 014216 DEFINITIONS

PART 1 GENERAL

1.01 SUMMARY

- A. This section supplements the definitions contained in the General Conditions.
- B. Other definitions are included in individual specification sections.

1.02 DEFINITIONS

- A. Contract: Same as Agreement.
- B. Furnish: To supply, deliver, unload, and inspect for damage.
- C. Install: To unpack, assemble, erect, apply, place, finish, cure, protect, clean, start up, and make ready for use.
- D. Product: Material, machinery, components, equipment, fixtures, and systems forming the work result. Not materials or equipment used for preparation, fabrication, conveying, or erection and not incorporated into the work result. Products may be new, never before used, or re-used materials or equipment.
- E. Project Manual: The book-sized volume that includes the procurement requirements (if any), the contracting requirements, and the specifications.
- F. Provide: To furnish and install.
- G. Supply: Same as Furnish.
- H. Other Secification Sections
 - 1. Approve: The term "approved," where used in conjunction with the Owner's Representative'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. Such approval shall not release the Contractor from responsibility to fulfill Contract Document requirements, unless otherwise provided in the Contract Documents.
 - 2. Directed: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the Owner's Representative", "requested by the "Owner's Representative", and similar phrases. However, no implied meaning shall be interpreted to extend the Owner's Representative's responsibility into the Contractor's area of construction supervision.
 - 3. Furnish: The term "furnish" is used to mean, "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."
 - 4. Foreman: This is the Contractor's Representative at the work site. This person will generally be the Competent Person required by OSHA in 29 CFR 1926.
 - 5. General Superintendent: This is the Contractor's Representative supervising multiple project sites or on large scale project. This person may be the Competent Person required by OSHA in 29 CFR 1926.
 - 6. Indicated: This term refers to graphic representations, notes or schedules on the Drawings, or other Paragraphs or Schedules in Specifications, and similar requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help locate the reference; no limitation on location is intended except as specifically noted.
 - 7. Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."
 - 8. Installer: 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.

9. Owner's Representative: This is the entity described as the "Architect" in AIA Document A201 "General Conditions of the Contract for Construction." All references to Architect or Engineer in the Contract Documents in all cases refer to the Owner's Representative. The Owner's Representative will represent the Owner during construction and until final payment is due. The Owner's Representative will advise and consult with the Owner. The Owner's instructions to the Contractor will be forwarded through the Owner's Representative.
10. Project Administrator: This is the entity described as the "Project Representative" in AIA Document A201 "General Conditions of the Contract for Construction," or is the entity described as "Engineer" in Engineers Joint Contract Document Committee (EJCDC) Document 1910-8 "Standard General Conditions of the Construction Contract." The Project Administrator is a full time representative of the Owner at the job site with authority to stop the work upon verbal order if requirements of the Contract Documents are not met, or if in the sole judgment of the Project Administrator, Owner's Representative, Owner, the interests of the Owner, safety of any person or the Owner's property are jeopardized by the work. The Project Administrator is different from the position of Owner's Representative as used in these documents, the latter having more limited authority in general and specifically not having authority to stop the work.
11. Project Site is the space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other construction as part of the project.
12. Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."
13. Regulation: The term "Regulations" includes laws, statutes, ordinances, patents, royalties and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the Work, whether they are lawfully imposed by authorities having jurisdiction or not.
14. Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the project site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests.+

1.03 ASSIGNMENT OF SPECIALISTS

- A. This Specification requires that certain specific construction activities shall be performed by specialists who are recognized experts in the operations to be performed. The specialists must be engaged for those activities, and the assignments are requirements over which the Contractor has no choice or option. Nevertheless, the ultimate responsibility for fulfilling Contract requirements remains with the Contractor.
- B. This requirement should not be interpreted to conflict with enforcement of building codes or regulations governing the work. It is also not intended to interfere with local trade union jurisdictional settlements and similar conventions.
- C. Trades: Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.

1.04 INDUSTRY STANDARDS

- A. Applicability of Standards: Except where Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into Contract Documents. Such standards are made a part of the Contract Documents by reference. Individual Sections indicate which codes and standards the Contractor must keep available at the Project Site for reference.
- B. Referenced industry standards take precedence over standards that are not referenced but recognized in the construction industry as applicable.

- C. Unreferenced industry standards are not directly applicable to the work, except as a general requirement of whether the work complies with recognized construction industry standards.
- D. Publication Dates: Where compliance with an industry standard is required, comply with standard in effect as of date of execution of the work.
- E. Updated Standards: At the request of the Owner, Contractor may submit a Change Order proposal where applicable code or standard has been revised and reissued after the date of the Contract Documents and before performance of Work affected. The Owner will decide whether to issue a Change Order to proceed with the updated standard.
- F. Conflicting Requirements: Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced, unless the Contract Documents indicate otherwise. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the Owner for a decision before proceeding.
- G. Minimum Quantities or Quality Levels: In every instance the quantity or quality level shown or specified shall be the minimum to be provided or performed. The actual installation may comply exactly, within specified tolerances, with the minimum quantity or quality specified, or it may exceed that minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum values, as noted, as appropriate for the context of the requirements. Refer instances of uncertainty to the Owner for decision before proceeding.
- H. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entities' construction activity. Copies of applicable standards are not bound with the Contract Documents.
- I. Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.
- J. Although copies of standards needed for enforcement of requirements may be part of required submittals, the Owner reserves the right to require the Contractor to submit additional copies as necessary for enforcement of requirements.
- K. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where acronyms or abbreviations are used in the Specifications or other Contract Documents they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 015000
TEMPORARY FACILITIES AND CONTROLS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary utilities.
- B. Temporary telecommunications services.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and fencing.
- E. Security requirements.
- F. Vehicular access and parking.
- G. Waste removal facilities and services.
- H. Project identification sign.
- I. Field offices.

1.02 RELATED REQUIREMENTS

- A. Section 013553 - Security Procedures
- B. Section 015100 - Temporary Utilities.
- C. Section 015213 - Field Offices and Sheds.
- D. Section 015500 - Vehicular Access and Parking.

1.03 REFERENCE STANDARDS

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

1.04 TEMPORARY UTILITIES - SEE SECTION 015100

1.05 TELECOMMUNICATIONS SERVICES

- A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
- B. Telecommunications services shall include:
 - 1. Windows-based personal computer dedicated to project telecommunications, with necessary software and printer.
 - 2. Telephone Land Lines: One line, minimum; one handset per line.
 - a. Land line requirement will be waived if Contractor's Superintendent has dedicated cellular telephone.
 - 3. Internet Connections: Minimum of one; DSL modem or faster.
 - a. If Contractor is allowed to use Owner's existing facility for a field office, then Contractor may access Owner's internet connection at no cost to Contractor.

1.06 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

1.07 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.08 FENCING

- A. Construction: 4 foot high plastic snow fence as a minimum.
- B. Maintain fence in upright, supported, and fastened condition daily.

1.09 INTERIOR ENCLOSURES

- A. Provide temporary partitions and ceilings as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Framing and plywood or gypsum board sheet materials with closed joints and sealed edges at intersections with existing surfaces as indicated on drawings.
 - 1. Maximum flame spread rating of 75 in accordance with ASTM E84.

1.10 SECURITY - SEE SECTION 013553

1.11 VEHICULAR ACCESS AND PARKING - SEE SECTION 015500

1.12 WASTE REMOVAL

- A. See Section 017419 - Construction Waste Management and Disposal, for additional requirements.
- B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- C. Provide containers with lids. Remove trash from site periodically as containers are filled.
- D. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.13 PROJECT IDENTIFICATION

- A. Provide project identification sign of design and construction indicated on drawings.
- B. Erect on site at location indicated.
- C. No signs are allowed without Owner permission except those required by law.

1.14 FIELD OFFICES - SEE SECTION 015213

1.15 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.
- D. Restore new permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 015100
TEMPORARY UTILITIES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary Utilities: Electricity, lighting, heat, ventilation, and water.

1.02 RELATED REQUIREMENTS

- A. Section 015000 - Temporary Facilities and Controls:
 - 1. Temporary telecommunications services for administrative purposes.
 - 2. Temporary sanitary facilities required by law.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1926 - Safety and Health Regulations for Construction.

1.04 TEMPORARY ELECTRICITY

- A. Cost: By Owner.
- B. Connect to Owner's existing power service.
 - 1. Do not disrupt Owner's need for continuous service.
 - 2. Exercise measures to conserve energy.
- C. Provide temporary electric feeder from existing building electrical service at location as directed.
- D. Power Service Characteristics: TBD volt, TBD ampere, three phase, four wire.
- E. Complement existing power service capacity and characteristics as required.
- F. Provide power outlets for construction operations, with branch wiring and distribution boxes located at each floor. Provide flexible power cords as required.
- G. Provide main service disconnect and over-current protection at convenient location .
- H. Permanent convenience receptacles may be utilized during construction.
- I. Provide adequate distribution equipment, wiring, and outlets to provide single phase branch circuits for power and lighting.

1.05 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain LED, compact fluorescent, or high-intensity discharge lighting as suitable for the application for construction operations in accordance with requirements of 29 CFR 1926 and authorities having jurisdiction.
- B. Provide and maintain 1 watt/sq ft lighting to exterior staging and storage areas after dark for security purposes.
- C. Provide and maintain 0.25 watt/sq ft H.I.D. lighting to interior work areas after dark for security purposes.
- D. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- E. Maintain lighting and provide routine repairs.
- F. Permanent building lighting may be utilized during construction.

1.06 TEMPORARY HEATING

- A. Cost of Energy: By Owner.
- B. Provide heating devices and heat as needed to maintain specified conditions for construction operations.
- C. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress, unless indicated otherwise in specifications.

- D. Owner's existing heat plant may be used.
 - 1. Exercise measures to conserve energy.
 - 2. Enclose building prior to activating temporary heat.
- E. Prior to operation of permanent equipment for temporary heating purposes, verify that installation is approved for operation, equipment is lubricated and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.

1.07 TEMPORARY VENTILATION

- A. Utilize existing ventilation equipment. Extend and supplement equipment with temporary fan units as required to maintain clean air for construction operations.

1.08 TEMPORARY WATER SERVICE

- A. Cost of Water Used: By Owner.
- B. Provide and maintain suitable quality water service for construction operations at time of project mobilization.
- C. Connect to existing water source.
 - 1. Exercise measures to conserve water.
 - 2. Provide separate metering and reimburse Owner for cost of water used.
- D. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 015213
FIELD OFFICES AND SHEDS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary field offices for use of Contractor.
- B. Maintenance.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: use of premises and responsibility for providing field offices.
- B. Section 015000 - Temporary Facilities and Controls:
 - 1. Temporary telecommunications services for administrative purposes.
 - 2. Temporary sanitary facilities required by law.
- C. Section 015500: Parking and access to field offices.

1.03 USE OF EXISTING FACILITIES

- A. Designated existing spaces may be used for field offices.

1.04 USE OF PERMANENT FACILITIES

- A. When permanent facilities are enclosed with operable utilities, relocate offices into building, with written agreement of Owner, and remove temporary buildings.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 INSTALLATION

- A. Coordinate with Owner to confirm location for office and date of installation.
- B. Employee Residential Occupancy: Not allowed on Owner's property.

3.02 MAINTENANCE AND CLEANING

- A. Provide periodic cleaning and maintenance for offices.
- B. Maintain approach walks free of mud, water, and snow.

3.03 REMOVAL

- A. At completion of Work remove buildings, foundations, utility services, and debris. Restore areas.

END OF SECTION

**SECTION 015500
VEHICULAR ACCESS AND PARKING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Access roads.
- B. Parking.
- C. Existing pavements and parking areas.
- D. Construction parking controls.
- E. Flag persons.
- F. Flares and lights.
- G. Haul routes.
- H. Traffic signs and signals.
- I. Maintenance.
- J. Removal, repair.
- K. Mud from site vehicles.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: For access to site, work sequence, and occupancy.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Temporary Construction: Contractor's option.

2.02 SIGNS, SIGNALS, AND DEVICES

- A. Stock Post Mounted and Wall Mounted Traffic Control and Informational Signs:
- B. Traffic Control Signals: As approved by local jurisdictions.
- C. Traffic Cones and Drums, Flares and Lights: As approved by local jurisdictions.
- D. Flag Person Equipment: As required by local jurisdictions.

PART 3 EXECUTION

3.01 PREPARATION

- A. Clear areas, provide surface and storm drainage of road, parking, area premises, and adjacent areas.

3.02 ACCESS ROADS

- A. Use of existing on-site streets and driveways for construction traffic is permitted.
- B. Tracked vehicles not allowed on paved areas.
- C. Construct new temporary all-weather access roads from public thoroughfares to serve construction area, of a width and load bearing capacity to provide unimpeded traffic for construction purposes.
- D. Construct temporary bridges and culverts to span low areas and allow unimpeded drainage.
- E. Extend and relocate as work progress requires, provide detours as necessary for unimpeded traffic flow.
- F. Location as approved by Architect.
- G. Provide unimpeded access for emergency vehicles. Maintain 20 foot width driveways with turning space between and around combustible materials.
- H. Provide and maintain access to fire hydrants and control valves free of obstructions.

3.03 PARKING

- A. Use of designated areas of existing parking facilities by construction personnel is permitted.
- B. Use of designated areas of new parking facilities by construction personnel is permitted.
- C. Arrange for temporary parking areas to accommodate use of construction personnel.
- D. When site space is not adequate, provide additional off-site parking.
- E. Locate as approved by Architect.

3.04 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and Owner's operations.
- B. Monitor parking of construction personnel's vehicles. Maintain vehicular access to and through parking areas.
- C. Prevent parking on or adjacent to access roads or in non-designated areas.

3.05 FLAG PERSONS

- A. Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

3.06 FLARES AND LIGHTS

- A. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

3.07 HAUL ROUTES

- A. Consult with authority having jurisdiction, establish public thoroughfares to be used for haul routes and site access.
- B. Confine construction traffic to designated haul routes.
- C. Provide traffic control at critical areas of haul routes to regulate traffic, to minimize interference with public traffic.

3.08 TRAFFIC SIGNS AND SIGNALS

- A. At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
- B. Relocate as work progresses, to maintain effective traffic control.

3.09 MAINTENANCE

- A. Maintain traffic and parking areas in a sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
- B. Maintain existing and new permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

3.10 REMOVAL, REPAIR

- A. Remove temporary roads when permanent paving is usable.
- B. Remove underground work and compacted materials to a depth of 2 feet; fill and grade site as specified.
- C. Repair existing facilities damaged by use, to original condition.
- D. Remove equipment and devices when no longer required.
- E. Repair damage caused by installation.
- F. Remove post settings to a depth of 2 feet.

3.11 MUD FROM SITE VEHICLES

- A. Provide means of removing mud from vehicle wheels before entering streets.

END OF SECTION

**SECTION 016000
PRODUCT REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General product requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.
- E. Substitution limitations.
- F. Value engineering proposals
- G. Procedures for Owner-supplied products.
- H. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: Lists of products to be removed from existing building.
- B. Section 011000 - Summary: Identification of Owner-supplied products.
- C. Section 014000 - Quality Requirements: Product quality monitoring.
- D. Section 016116 - Volatile Organic Compound (VOC) Content Restrictions: Requirements for VOC-restricted product categories.
- E. Section 017419 - Construction Waste Management and Disposal: Waste disposal requirements potentially affecting product selection, packaging and substitutions.

1.03 REFERENCE STANDARDS

- A. NFPA 70 - National Electrical Code.

1.04 SUBMITTALS

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.
- B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.
- C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.
- D. Specific Products to be Reused: The reuse of certain materials and equipment already existing on the project site is required.
 - 1. See Section 011000 for list of items required to be salvaged for reuse and relocation.

2.02 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by Contract Documents.
- B. DO NOT use products having any of the following characteristics:
 - 1. Made of wood from newly cut old growth timber.
 - 2. Containing lead, cadmium, or asbestos.
- C. Where other criteria are met, Contractor shall give preference to products that:
 - 1. If used on interior, have lower emissions, as defined in Section 016116.
 - 2. If wet-applied, have lower VOC content, as defined in Section 016116.
 - 3. Are extracted, harvested, and/or manufactured closer to the location of the project.
 - 4. Have longer documented life span under normal use.
 - 5. Result in less construction waste. See Section 017419
 - 6. Are made of vegetable materials that are rapidly renewable.
 - 7. Are made of recycled materials.
 - 8. If made of wood, are made of sustainably harvested wood, wood chips, or wood fiber.
 - 9. If bio-based, other than wood, are or are made of Sustainable Agriculture Network certified products.
 - 10. Are Cradle-to-Cradle Certified.
 - 11. Have a published Environmental Product Declaration (EPD).
 - 12. Have a published Health Product Declaration (HPD).
 - 13. Have a published GreenScreen Chemical Hazard Analysis.
 - 14. Have a published Manufacturer's Inventory of Chemical Content.
- D. Provide interchangeable components by the same manufacture for components being replaced.
- E. Wiring Terminations: Provide terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated. Size terminal lugs to NFPA 70, include lugs for terminal box.
- F. Cord and Plug: Provide minimum 6 foot cord and plug including grounding connector for connection to electric wiring system. Cord of longer length is specified in individual specification sections.

2.03 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.04 MAINTENANCE MATERIALS

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Owner; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 SUBSTITUTION PROCEDURES

- A. Instructions to Bidders specifies time restrictions for submitting requests for substitutions during the bidding period and the documents required. Comply with requirements specified in Section 002113.
- B. No substitutions will be considered after award of the Contract except as follows:
 - 1. The specified product becomes unavailable through no fault of the Contractor.

2. The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure of the Contractor to pursue the Work promptly or coordinate activities properly.
 3. The specified product or method of construction cannot receive necessary approval by authorities having jurisdiction, and the requested substitution can be approved.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- D. A request for substitution constitutes a representation that the Contractor:
1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 2. Agrees to provide the same warranty for the substitution as for the specified product.
 3. Agrees to coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 4. Waives claims for additional costs or time extension that may subsequently become apparent.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure (after contract award):
1. Submit to Owner and Architect one electronic copy of request for substitution as an e-mail attachment for consideration.
 2. Limit each submittal to one value engineering proposal.
 3. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
 4. The Architect will notify Contractor in writing of decision to accept or reject request.
 5. If accepted, a revised Service Contractor Not-To-Exceed Proposal Form will be issued to document the acceptance of the substitution request.

3.02 VALUE ENGINEERING PROPOSALS

- A. Value engineering proposals shall be substitutions which, if accepted, provide a savings to the Project of at least two thousand five hundred dollars (\$2,500.00) or more after deducting offsetting costs the Owner may be required to bear. Offsetting costs to the Owner may include increased administrative costs by the Owner, Architect's fees for incorporating proposal into Construction Documents, increased cost of other construction by the Owner, cost of Owner's other contractors, and similar considerations.
- B. Value engineering proposals will be considered at any time after award of the Contract.
- C. Owner is under no obligation to accept value engineering proposals from Contractor.
- D. Owner is under no obligation to reimburse costs of value engineering proposal preparation to Contractor if proposal is rejected.
- E. The amount of savings to the Project after deducting offsetting costs to the Owner will be distributed fifty percent to the Owner and fifty percent to the Contractor.
- F. Value Engineering Proposal Submittal Procedure:
1. Submit to Owner and Architect one electronic copy of value engineering proposal as an e-mail attachment for consideration.
 2. Limit each submittal to one value engineering proposal.
 3. Submit narrative describing value engineering proposal, product information, and cost savings analysis.
 4. The Owner will notify Contractor in writing of decision to accept or reject request.

5. If accepted, a revised Service Contractor Not-To-Exceed Proposal Form will be issued to document the acceptance of the value engineering proposal and modify the Contract Sum accordingly.

3.03 OWNER-SUPPLIED PRODUCTS

- A. See Section 011000 - Summary for identification of Owner-supplied products.
- B. Owner's Responsibilities:
 1. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
 2. Arrange and pay for product delivery to site.
 3. On delivery, inspect products jointly with Contractor.
 4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
 5. Arrange for manufacturers' warranties, inspections, and service.
- C. Contractor's Responsibilities:
 1. Review Owner reviewed shop drawings, product data, and samples.
 2. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
 3. Handle, store, install and finish products.
 4. Repair or replace items damaged after receipt.

3.04 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.05 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 017419.
 1. Structural Loading Limitations: Handle and store products and materials so as not to exceed static and dynamic load-bearing capacities of project floor and roof areas.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Provide off-site storage and protection when site does not permit on-site storage or protection.

- G. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- H. Comply with manufacturer's warranty conditions, if any.
- I. Do not store products directly on the ground.
- J. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- K. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- L. Prevent contact with material that may cause corrosion, discoloration, or staining.
- M. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- N. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

SECTION 016116
VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for Indoor-Emissions-Restricted products.
- B. Requirements for VOC-Content-Restricted products.

1.02 RELATED REQUIREMENTS

- A. Section 013000 - Administrative Requirements: Submittal procedures.
- B. Section 014000 - Quality Requirements: Procedures for testing and certifications.
- C. Section 016000 - Product Requirements: Fundamental product requirements, substitutions and product options, delivery, storage, and handling.

1.03 DEFINITIONS

- A. Indoor-Emissions-Restricted Products: All products in the following product categories, whether specified or not:
 - 1. Interior paints and coatings applied on site.
 - 2. Interior adhesives and sealants applied on site, including flooring adhesives.
 - 3. Flooring.
 - 4. Composite wood.
 - 5. Products making up wall and ceiling assemblies.
 - 6. Thermal and acoustical insulation.
 - 7. Other products when specifically stated in the specifications.
- B. VOC-Content-Restricted Products: All products in the following product categories, whether specified or not:
 - 1. Interior paints and coatings.
 - 2. Interior adhesives and sealants applied on site, including flooring adhesives.
 - 3. Other products when specifically stated in the specifications.
- C. Interior of Building: Anywhere inside the exterior weather barrier.
- D. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.
- E. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.
- F. Inherently Non-Emitting Materials: Products composed wholly of minerals or metals, unless they include organic-based surface coatings, binders, or sealants; and specifically the following:
 - 1. Concrete.
 - 2. Clay brick.
 - 3. Metals that are plated, anodized, or powder-coated.
 - 4. Glass.
 - 5. Ceramics.
 - 6. Solid wood flooring that is unfinished and untreated.

1.04 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency.
- B. ASTM D3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.
- C. CAL (CDPH SM) - Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers Version 1.2.

- D. CARB (ATCM) - Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products.
- E. CARB (SCM) - Suggested Control Measure for Architectural Coatings; California Air Resources Board.
- F. CHPS (HPPD) - High Performance Products Database.
- G. CRI (GLP) - Green Label Plus Testing Program - Certified Products.
- H. GreenSeal GC-03 - Anti-Corrosive Paints; Green Seal, Inc.; 2007
- I. GreenSeal GS-11 - Paints; Green Seal, Inc.; 1993.
- J. GreenSeal GS-36 - Standard for Adhesives for Commercial Use.
- K. SCAQMD 1113 - Architectural Coatings.
- L. SCAQMD 1168 - Adhesive and Sealant Applications.
- M. SCS (CPD) - SCS Certified Products.
- N. UL (GGG) - GREENGUARD Gold Certified Products.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: For each VOC-restricted product used in the project, submit evidence of compliance.

1.06 QUALITY ASSURANCE

- A. Indoor Emissions Standard and Test Method: CAL (CDPH SM), using Standard Private Office exposure scenario and the allowable concentrations specified in the method, and range of total VOC's after 14 days.
 - 1. Wet-Applied Products: State amount applied in mass per surface area.
 - 2. Paints and Coatings: Test tinted products, not just tinting bases.
 - 3. Evidence of Compliance: Acceptable types of evidence are the following;
 - a. Current UL (GGG) certification.
 - b. Current SCS (CPD) Floorscore certification.
 - c. Current SCS (CPD) Indoor Advantage Gold certification.
 - d. Current listing in CHPS (HPPD) as a low-emitting product.
 - e. Current CRI (GLP) certification.
 - f. Test report showing compliance and stating exposure scenario used.
 - 4. Product data submittal showing VOC content is NOT acceptable evidence.
 - 5. Manufacturer's certification without test report by independent agency is NOT acceptable evidence.
- B. VOC Content Test Method: 40 CFR 59, Subpart D (EPA Method 24), or ASTM D3960, unless otherwise indicated.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.
 - b. Published product data showing compliance with requirements.
 - c. Certification by manufacturer that product complies with requirements.
- C. Composite Wood Emissions Standard: CARB (ATCM) for ultra-low emitting formaldehyde (ULEF) resins.
 - 1. Evidence of Compliance: Acceptable types of evidence are:
 - a. Current SCS "No Added Formaldehyde (NAF)" certification; www.scs-certified.com.
 - b. Report of laboratory testing performed in accordance with requirements.
 - c. Published product data showing compliance with requirements.
 - d. Certification by manufacturer that product complies with requirements.

- D. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

PART 2 PRODUCTS

2.01 MATERIALS

- A. All Products: Comply with the most stringent of federal, State, and local requirements, or these specifications.
- B. Indoor-Emissions-Restricted Products: Comply with Indoor Emissions Standard and Test Method, except for:
 - 1. Composite Wood, Wood Fiber, and Wood Chip Products: Comply with Composite Wood Emissions Standard or contain no added formaldehyde resins.
 - 2. Inherently Non-Emitting Materials.
- C. VOC-Content-Restricted Products: VOC content not greater than required by the following:
 - 1. Adhesives, Including Flooring Adhesives: SCAQMD 1168 Rule.
 - 2. Aerosol Adhesives: GreenSeal GS-36.
 - 3. Joint Sealants: SCAQMD 1168 Rule.
 - 4. Paints and Coatings: Each color; most stringent of the following:
 - a. 40 CFR 59, Subpart D.
 - b. SCAQMD 1113 Rule.
 - c. CARB (SCM).
- D. Other Product Categories: Comply with limitations specified elsewhere.

PART 3 EXECUTION

3.01 FIELD QUALITY CONTROL

- A. Owner reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Owner.
- B. Additional costs to restore indoor air quality due to installation of non-compliant products will be borne by Contractor.

END OF SECTION

**SECTION 017000
EXECUTION AND CLOSEOUT REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition, except for removal, demolition, and/or remediation of hazardous materials and toxic substances.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Surveying for laying out the work.
- F. Cleaning and protection.
- G. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 013000 - Administrative Requirements: Submittals procedures, Electronic document submittal service.
- C. Section 014000 - Quality Requirements: Testing and inspection procedures.
- D. Section 015000 - Temporary Facilities and Controls: Temporary exterior enclosures.
- E. Section 015000 - Temporary Facilities and Controls: Temporary interior partitions.
- F. Section 015100 - Temporary Utilities: Temporary <> facilities.
- G. Section 017419 - Construction Waste Management and Disposal: Additional procedures for trash/waste removal, recycling, salvage, and reuse.
- H. Section 017800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties, and bonds.
- I. Section 017900 - Demonstration and Training: Demonstration of products and systems to be commissioned and where indicated in specific specification sections
- J. Individual Product Specification Sections:
 - 1. Advance notification to other sections of openings required in work of those sections.
 - 2. Limitations on cutting structural members.

1.03 REFERENCE STANDARDS

- A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Cutting and Patching: Notify Owner in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate contractor.
- C. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.05 QUALIFICATIONS

- A. For demolition work, employ a firm specializing in the type of work required.

- B. For field engineering, employ a professional engineer of the discipline required for specific service on Project, licensed in the State in which the Project is located. Employ only individual(s) trained and experienced in establishing and maintaining horizontal and vertical control points necessary for laying out construction work on project of similar size, scope and/or complexity.
- C. For design of temporary shoring and bracing, employ a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

1.06 PROJECT CONDITIONS

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000 - Product Requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 - 1. Review conditions of examination, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with one copy to Architect, Owner, participants, and those affected by decisions made.

3.04 GENERAL INSTALLATION REQUIREMENTS

- A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.
- B. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- D. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- E. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- F. Make neat transitions between different surfaces, maintaining texture and appearance.

3.05 ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
 - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 015000 in locations indicated on drawings.
 - 2. Provide sound retardant partitions of construction indicated on drawings in locations indicated on drawings.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
 - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
 - 2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- D. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
 - 2. Remove items indicated on drawings.
 - 3. Relocate items indicated on drawings.
 - 4. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 - 5. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove, relocate, and extend existing systems to accommodate new construction.
 - 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
 - 2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
 - 3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.

- a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
 - b. See Section 011000 for other limitations on outages and required notifications.
 - c. Provide temporary connections as required to maintain existing systems in service.
- 4. Verify that abandoned services serve only abandoned facilities.
- 5. Remove abandoned pipe, ducts, conduits, and equipment , including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.
- F. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.
- G. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
 - 1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
 - 2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
 - 3. Where a change of plane of 1/4 inch or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.
 - 4. Trim existing wood doors as necessary to clear new floor finish. Refinish trim as required.
- H. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- I. Refinish existing surfaces as indicated:
 - 1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
 - 2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.
- J. Clean existing systems and equipment.
- K. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- L. Do not begin new construction in alterations areas before demolition is complete.
- M. Comply with all other applicable requirements of this section.

3.06 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. See Alterations article above for additional requirements.
- C. Perform whatever cutting and patching is necessary to:
 - 1. Complete the work.
 - 2. Fit products together to integrate with other work.
 - 3. Provide openings for penetration of mechanical, electrical, and other services.
 - 4. Match work that has been cut to adjacent work.
 - 5. Repair areas adjacent to cuts to required condition.
 - 6. Repair new work damaged by subsequent work.
 - 7. Remove samples of installed work for testing when requested.
 - 8. Remove and replace defective and non-complying work.

- D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- E. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- G. Restore work with new products in accordance with requirements of Contract Documents.
- H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with matching material , to full thickness of the penetrated element.
- J. Patching:
 - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
 - 2. Match color, texture, and appearance.
 - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.07 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- D. Collect waste materials, debris, and trash/rubbish and place in appropriate trash receptacles or dumpsters daily.
- E. Compliance failure:
 - 1. Owner shall give Contractor written notice of failure to comply with progress cleaning and waste removal requirements.
 - 2. Owner shall commence progress cleaning and waste removal requirements with Owner's own forces if Contractor has not complied within 24 hours after receiving notice.
 - 3. Owner shall back charge Contractor at the rate of \$80 per man hour required to bring site to a clean and orderly condition.

3.08 PROTECTION OF EXISTING FACILITIES

- A. Protect adjacent rooms and spaces that are not a part of the Work.
- B. Contractor shall shut doors and keep closed.
- C. Contractor shall seal off with plastic and tape inside the Work area any smoke detectors, communicating wall penetrations, return registers, and door undercuts during operations that will generate airborne dust and debris.
- D. Contractor shall maintain plastic barriers until the Work generating airborne dust and debris is completed.
- E. Contractor shall remove plastic barriers carefully to not damage existing facilities.
- F. Contractor shall not use spray adhesives to attach plastic.
- G. Contractor shall use tape that will not damage material adhered to upon tape removal.
- H. Protect existing flooring:

1. Prior to Contractor mobilization on site:
 - a. Contractor shall provide contact adhesive plastic on carpeted flooring in any room or space, including stairs and ramps that are part of the Work or are used for storage and as indicated on the drawings.
 - b. Contractor shall provide 1/4 inch tempered masonite, 3/8 inch masonite, or 1/4 inch plywood over contact adhesive plastic sheeting on carpeted flooring and 1/4 inch tempered masonite, 3/8 inch masonite, or 1/4 inch plywood over plastic sheeting on vinyl tile, sheet vinyl, wood, ceramic tile, quarry tile, porcelain tile, rubber, or poured resin flooring in corridors or any other heavy traffic area, including stairs and ramps used to move wheeled or skidded equipment or materials and as indicated on the drawings.
 - c. Contractor shall provide 1/4 inch tempered masonite, 3/8 inch masonite, or 1/4 inch plywood over plastic sheeting on vinyl tile, sheet vinyl, wood, ceramic tile, quarry tile, porcelain tile, rubber, or poured resin flooring in any rooms or spaces that are part of the Work or are used for storage.
 - d. Contractor shall provide 1/4 inch tempered masonite, 3/8 inch masonite, or 1/4 inch plywood in areas where soldering, metal cutting, pipe threading, welding, or torch work is performed.
 - e. Contractor shall tape all joints on installed 1/4 inch tempered masonite, 3/8 inch masonite, or 1/4 inch plywood and maintain taped joints throughout progress of the Work to insure joints remained sealed and do not pose a tripping hazard.
 - f. Contractor shall cooperate with Owner to identify spaces that meet the requirements for flooring protection identified in this Section prior to mobilization on site.
2. During construction:
 - a. Contractor will maintain flooring protection during progress of the Work and will not remove protection until all the Work in the room or space is substantially complete.
 - b. If Contractor moves into a new space to perform the Work or to use for storage and does not protect the existing floor, then the Contractor shall be back charged for cleaning flooring at a minimum or replacement of flooring at a maximum, dependent upon damage to flooring and at the sole discretion of the Owner.
- I. Protect existing casework:
 1. Contractor shall cover with plastic and tape as a minimum.
 2. Contractor shall provide 1/4 inch tempered masonite, 3/8 inch masonite, or 1/4 inch plywood over plastic if casework is used as a ladder or scaffold for workers or if soldering, metal cutting, pipe threading, welding, or torch work is performed overhead.
 3. Maintain during progress of the Work and do not remove until all the Work in the room or space is substantially complete.
- J. Protect existing elevator cabs:
 1. Contractor shall provide moving pads to cover walls.
 2. Contractor shall provide 1/4 inch tempered masonite, 3/8 inch masonite, or 1/4 inch plywood on flooring, tape and maintain all joints.
 3. Contractor shall maintain during progress of the Work and do not remove until all the Work is substantially complete.
- K. Compliance failure:
 1. Owner shall give Contractor written notice of failure to comply with protection of existing facilities.
 2. Owner shall commence protecting existing facilities with Owner's own forces if Contractor has not complied within 24 hours after receiving notice.
 3. Owner shall back charge Contractor at the rate of \$80 per man hour plus cost of protection materials required to protect existing facilities.

4. Contractor shall repair to the satisfaction of the Owner or replace casework damaged as a consequence of using casework as a ladder or scaffold for workers or if damaged because soldering, metal cutting, pipe threading, welding, or torch work is performed overhead without specified protection.

3.09 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Prohibit traffic from landscaped areas.
- H. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.10 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.11 FINAL CLEANING

- A. Execute final cleaning prior to Substantial Completion.
 1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.
- B. Use cleaning materials that are nonhazardous.
- C. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- D. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- E. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- F. Replace filters of operating equipment.
- G. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
- H. Clean site; sweep paved areas, rake clean landscaped surfaces.
- I. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.12 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
 1. Provide copies to Architect and Owner.
- B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Owner when work is considered ready for Substantial Completion inspection.

- D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.
- E. Owner will occupy portions of the building as specified in Section 011000.
- F. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- G. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- H. Accompany Owner's Construction Supervisor on Contractor's preliminary final inspection.
- I. Notify Owner when work is considered finally complete.
- J. Complete items of work determined by Architect's and Owner's final inspection.

END OF SECTION

**SECTION 017419
CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL**

PART 1 GENERAL

1.01 WASTE MANAGEMENT REQUIREMENTS

- A. Owner requires that this project generate the least amount of trash and waste possible.
- B. Owner recovers commodity, universal, and hazardous waste materials.
- C. Employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
- D. Minimize trash/waste disposal in landfills; salvage or recycle as much waste as economically feasible.
- E. Required Recycling: The following must be recycled by the Contractor:
 - 1. Wood pallets, not painted.
 - 2. Clean dimensional wood, not painted.
 - 3. Concrete.
 - 4. Concrete masonry units.
 - 5. Bricks, unless specifically identified in the Contract Documents to be re-used on site.
 - 6. Pre-cast concrete panels.
 - 7. Asphalt.
 - 8. Asphalt roofing shingles.
 - 9. Plumbing fixtures, porcelain.
 - 10. Acoustical ceiling tile:
 - a. Use acoustical ceiling tile recycling program administered by Armstrong World Industries, Inc.
 - 1) Additional information can be found at web address
<https://www.armstrongceilings.com/commercial/en-us/performance/sustainable-building-design/ceiling-recycling-program.html>
 - b. Materials acceptable for recycling:
 - 1) All brands of dry, pulpable mineral fiber ceiling panels or tiles.
 - (a) All metal splines must be removed from tiles (12"x12").
 - 2) All brands of dry fiberglass panels (foil-back case by case).
 - (a) Facing must be easily removable.
 - 3) Any vinyl or scrim-faced mineral fiber panels.
 - c. Materials acceptable for recycling case-by-case: (Contact the Armstrong Recycling Center at telephone number 877-276-7876 option 1,8)
 - 1) Asbestos containing ceiling tiles, Ceiling tiles installed below friable asbestos or contaminated with any other hazardous material.
 - 2) Red or pink-backed ceiling tiles.
 - 3) Wet, moldy or weathered ceiling tiles.
 - 4) Ceiling tiles or pallets/boxes/bales which contain visible debris (garbage, construction waste).
 - 5) Ceiling tiles not packaged according to Armstrong Specifications.
 - 6) Any gypsum ceiling or board.
 - 7) Ceiling tiles with visible wood pulp.
 - 8) Armstrong Artran (cardboard like face).
 - 9) Armstrong Ceramaguard.
 - 10) Glue-up or adhesive ceiling tiles.
 - 11) Roll-offs which contain debris.
 - 12) Baled fiberglass, vinyl-faced, fabric, scrim faced or foil-backed ceiling tiles.

- d. Call the Armstrong Recycling Center at 877-276-7876, select option 1, then option 8 to review the building where the ceilings will be removed, verify the material meets our requirements and for assistance to facilitate recycle. We are continually updating the types of ceiling panels we can recycle and methods we can receive them in.
- e. Ceiling material being reclaimed may not come into contact with asbestos containing material, hazardous waste materials or special waste.
 - 1) If the area where ceilings are being removed is or has gone through abatement procedures, verification that ceilings did not come in contact with asbestos containing material is required
- f. Ceiling material being reclaimed must be kept dry and free from debris.
- g. Contractor shall register the Project: Contact the Armstrong Ceiling Recycling Center at telephone number 877-276-7876 option 1,4.
- h. Required Information to have project approved for recycling:
 - 1) Contact information for the recycle project.
 - 2) Building information (Year of Building Construction, Contractor or demo subcontractor, Building use, copy of an asbestos survey, details on any prior or current abatement where ceiling is removed).
 - (a) Owner will provide asbestos survey information upon request from the Contractor.
 - 3) Ceiling Information – Material type, quantity, timing.
- i. Scheduling, packaging, and shipping procedures:
 - 1) Receive final project approval for recycling by the Armstrong Recycling Center.
 - 2) Contractor shall remove ceiling tiles to be recycled from grid.
 - 3) Contractor shall contact the Armstrong Recycling Center (877-276-7876 option 1,4) to schedule a pick up.
 - 4) Contractor shall use one of the following three options for return.
 - (a) When Option B or C is chosen by the Contractor, coordinate with the local recycler/consolidator for the applicable option to be used.
 - 5) Option A For Return-Full Truckload Palletized Procedure:
 - (a) Contractor shall supply pallets, metal bands, stretch wrap.
 - (b) Approved ceiling materials will be palletized in a manner allowing both secure shipment by trailer and the ability of Armstrong employees to safely inspect and unload the trailers' contents, therefore all approved ceiling materials sent to Armstrong must be neatly stacked as follows:
 - (1) 4' x 4' pallets stacked with ceiling materials to 4 feet tall each and then stacked on top of each other in the trailer. This method is preferred but proper loading equipment must be available at the job site.
 - (2) 4' x 4' pallets stacked with ceiling materials to 6 feet tall each.
 - (3) Some combination of 2'x4' and 4'x4' pallets that are agreed upon in advance, in writing to accommodate special building circumstances if building elevators do not accommodate larger size pallets.
 - (4) When 2' x 4' pallets are used place onto 4' x 4' pallets to stabilize two 2' x 4' pallets and use stretch wrap to secure pallets together..
 - (c) Contractor shall neatly stack ceiling panels on 4' x 4' wooden pallets and secure them with metal bands or stretch wrap for stable shipment.
 - (1) Any variation from pallet size must be pre-approved by Armstrong.
 - (d) Pallets must be kept dry.
 - (1) Wet material is not acceptable and will be returned.
 - (e) Pallets must be labeled per Armstrong requirements.
 - (f) Pallets must be secured within trailers to prevent shifting in transit.
 - (1) Carriers will provide load stabilizers.
 - (g) Armstrong will pay for the return freight of full trailers of approved material, all of which are defined as a minimum of 30,000 square feet as follows:

- (1) Forty-four 4' x 4' pallets stacked with ceiling material to 4 feet tall each and then stacked on top of each other in the trailer (preferred method, but proper loading equipment must be available at the job site).
 - (2) Twenty-two 4' x 4' pallets with ceiling material stacked to 6 feet tall each.
- (h) It is Contractor's responsibility to ensure that only full trailer loads of approved ceiling materials are shipped.
- 6) Option B For Return-Less Than Full Truckload Palletized Procedure:
 - (a) Where the amount of approved ceiling materials from a site is insufficient for a full trailer load, the Contractor may elect to utilize the services of a local recycler/conconsolidator to consolidate approved ceiling materials in a secure and dry location, until a full trailer load is ready for shipment.
 - (1) The local recycler/consolidator will ensure that all such aggregated shipments are and remain clearly labeled as to their origin and date of approval by an Armstrong employee.
 - (2) Go to web address **www.armstrong.com/recycling** to find a local recycler/consolidator.
 - (3) Upon aggregating a full truck load of ceiling tiles, follow the Option A procedures.
 - (b) The local recycler/consolidator may assist in supplying pallets, metal bands, and stretch wrap.
 - (c) When local consolidation is not available a LTL pick up may be arranged in some areas for five (5) pallets (7,000 sq. ft.) or more of approved ceiling materials.
 - (1) Armstrong will pay the return freight of these LTL pickups. LTL pickup must be pre-approved by Armstrong when other options are not available.
 - (2) LTL pickup must be pre-approved by Armstrong when other options are not available.
 - (d) The recycler/consolidator shall retain ownership of approved ceiling materials until it is received and accepted at the destination, the Armstrong Plant, as defined by the terms of shipment, F.O.B. (Free on board) destination, despite Armstrong's payment of the freight costs for full trailer loads.
 - (e) While the Armstrong approved common carrier is not a party to this agreement, the following describes their responsibilities.
 - (1) The common carrier that Armstrong has selected is responsible for the transport of the approved ceiling materials from the pick up location to Armstrong's plant.
 - (2) This common carrier is an independent contractor utilized by Armstrong and required to demonstrate general liability insurance coverage that meets or exceeds industry standards.
- 7) Option C For Return-On-Site Roll-Off Procedure (Bulk return to local recycler/consolidator):
 - (a) Where the amount of approved ceiling materials from a site is insufficient for a full trailer load, the Contractor may elect to utilize the services of a local recycler/conconsolidator to consolidate approved ceiling materials in a secure and dry location, until a full trailer load is ready for shipment.
 - (1) The local recycler/consolidator will ensure that all such aggregated shipments are and remain clearly labeled as to their origin and date of approval by an Armstrong employee.
 - (2) Go to web address **www.armstrong.com/recycling** to find a local recycler/consolidator.

- (3) Upon aggregating a full truck load of ceiling tiles, follow the Option A procedures.
 - (b) Material must be clean and dry.
 - (c) No wood, metal, construction debris, trash or hazardous materials of any kind can be included.
 - (d) Material shall be placed in a roll-off container with a water impermeable cover such that material inside does not get wet.
 - (e) Material shall not be loaded above the top of the container.
 - (f) Container should have visible Armstrong RA label attached.
11. Contractor can find contact information for various material recyclers at the following web addresses, but may use the material recycler of their choosing, whether or not they are listed at the web addresses provided:

a.	http://www.stlouisco.com/HealthandWellness/RecyclingandWasteManagement/RegulationsAndLicensing/ConstructionAndDemolitionRecycling
b.	http://www.usgbc-mogateway.org/wp-content/uploads/2013/05/CD-resources-list-STL-5-23-13.pdf
- F. Required Recycling: The following must be disposed of in Owner provided containers or stockpiled in areas identified by Owner on project site for Owner pick-up for recycling or disposal:
 1. Single Stream Recycling Container:
 - a. Aluminum and plastic beverage containers.
 - b. All nonhazardous aluminum containers.
 - c. All nonhazardous glass containers.
 - d. All nonhazardous plastic containers marked with the number 1, 2, 3, 4, 5, or 7.
 - 1) Plastic containers marked with the number 6, plastic bags, plastic straps, and plastic container lids shall not be recycled but shall be disposed of off site.
 - e. All nonhazardous cardboard free of contaminants with the exception of metal staples or tape.
 2. Ferrous Scrap Metal Recycling Container:
 - a. All nonhazardous ferrous metals, including packaging banding, metal studs, acoustic ceiling tile frames, sheet metal, structural steel, conduit not containing copper or aluminum wire, piping, reinforcing bars, doors without glazing, door frames, door hardware, and other items made of steel, iron, galvanized steel, stainless steel.
 3. Non-Ferrous Scrap Metal Recycling Container:
 - a. All nonhazardous non-ferrous metals, including acoustic ceiling tile frames, sheet metal, conduit which can contain copper or aluminum wire, piping, plumbing fixture trim components, doors without glazing, door frames, door hardware, and other items made of aluminum, copper, zinc, lead, brass, and bronze.
 - b. All electrical cabling and wiring.
 4. Stockpile For Owner Recycling Or Hazmat Disposal:
 - a. Mechanical and electrical equipment, unless otherwise indicated on the drawings.
 - 1) Refrigerant shall be removed from mechanical equipment before recycling mechanical equipment.
 - b. Fluorescent lamps (light bulbs).
 - 1) Protect lamps from breakage during demolition, collection, and stockpiling
 - c. All lead acid NiCad and lithium batteries.
 - d. All lighting ballasts or other electrical equipment suspected of containing PCBs.
- G. The Owner's waste minimization and material recovery operation is limited to those commodity, universal, and hazardous waste materials identified above as Owner's responsibility and responsibility for disposal or recycling of all other construction and demolition waste shall be the responsibility of the Contractor.

- H. Owner will recycle recyclable materials and legally dispose of hazardous materials collected from the commodity, universal, and hazardous waste materials identified above as Owner's responsibility.
- I. Revenue from recycling of materials collected from the commodity, universal, and hazardous waste materials identified above as Owner's responsibility shall accrue to the Owner.
- J. Revenue from recycling of materials collected from the commodity, universal, and hazardous waste materials identified above as Contractor's responsibility shall accrue to the Contractor.
- K. Develop and follow a Waste Management Plan designed to implement these requirements.
- L. Methods of trash/waste disposal that are not acceptable are:
 - 1. Burning on the project site.
 - 2. Burying on the project site.
 - 3. Dumping or burying on other property, public or private.
 - 4. Other illegal dumping or burying.
 - 5. Incineration, either on- or off-site.
- M. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, state and local requirements, pertaining to legal disposal of all construction and demolition waste materials.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: List of items to be salvaged from the existing building for relocation in project or for Owner.
- B. Section 013000 - Administrative Requirements: Additional requirements for project meetings, reports, submittal procedures, and project documentation.
- C. Section 015000 - Temporary Facilities and Controls: Additional requirements related to trash/waste collection and removal facilities and services.
- D. Section 016000 - Product Requirements: Waste prevention requirements related to delivery, storage, and handling.
- E. Section 017000 - Execution and Closeout Requirements: Trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

1.03 DEFINITIONS

- A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or the like.
- B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, remodeling, repair and demolition operations.
- C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity or reactivity.
- D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitibility, corrosivity, toxicity, or reactivity.
- E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- I. Return: To give back reusable items or unused products to vendors for credit.

- J. Reuse: To reuse a construction waste material in some manner on the project site.
- K. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
- L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
- M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- N. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Waste Management Plan:
 - 1. Submit Report prior to starting the Work on Project Site but no later than 42 days after Notice To Proceed date.
 - 2. Submit to Owner one electronic copy of waste disposal report as an e-mail attachment containing the following information:
 - a. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed.
 - b. Landfill Alternatives: List all waste materials that will be diverted from landfills by salvage or recycling.
 - 1) List each material proposed to be salvaged or recycled.
- C. Waste Disposal Reports:
 - 1. Submit Report prior to submitting Final Application for Payment but no later than 28 days after Substantial Completion date.
 - 2. Submit to Owner one electronic copy of waste disposal report as an e-mail attachment containing the following information:
 - a. Landfill Disposal: Include the following information:
 - 1) Identification of material.
 - 2) Amount, in tons or cubic yards, of trash/waste material from the project disposed of in landfills.
 - 3) Provide the name, address, telephone number, and contact person's name of the landfills used and provide certification to the Owner that the landfills have been used.
 - 4) Include manifests, weight tickets, receipts, or invoices as evidence of quantity.
 - b. Recycled and Salvaged Materials: Include the following information for each:
 - 1) Does not apply to Owner recycled materials.
 - 2) Identification of material, including those retrieved by installer for use on other projects.
 - 3) Amount, in tons or cubic yards, date removed from the project site, and receiving party.
 - 4) Include manifests, weight tickets, receipts, and invoices as evidence of quantity.
 - 5) Certification by receiving party that materials will not be disposed of in landfills or by incineration.
 - c. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 WASTE MANAGEMENT PROCEDURES

- A. See Section 011000 for list of items to be salvaged from the existing building for relocation in project or for Owner.
- B. See Section 013000 for additional requirements for project meetings, reports, submittal procedures, and project documentation.
- C. See Section 015000 for additional requirements related to trash/waste collection and removal facilities and services.
- D. See Section 016000 for waste prevention requirements related to delivery, storage, and handling.
- E. See Section 017000 for trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

3.02 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to job site foreman and each Subcontractor.
- C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- D. Meetings: Discuss trash/waste management goals and issues at project meetings, particularly at:
 - 1. Prebid meeting.
 - 2. Preconstruction meeting.
 - 3. Regular job-site meetings.
- E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
 - 1. Provide containers as required.
 - 2. Provide adequate space for pick-up and delivery and convenience to Subcontractors.
 - 3. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.
- F. Hazardous Wastes: Separate, store, and dispose of hazardous wastes according to applicable regulations.
- G. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.
- H. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.
- I. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

END OF SECTION

**SECTION 017800
CLOSEOUT SUBMITTALS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Project record documents.

1.02 RELATED REQUIREMENTS

- A. Section 007200 - General Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 013000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 017000 - Execution and Closeout Requirements: Contract closeout procedures.
- D. Individual Product Sections: Specific requirements for operation and maintenance data.
- E. Individual Product Sections: Extended warranties required for specific products or Work.

1.03 SUBMITTALS

- A. Project Record Documents:
 - 1. Submit to Owner and Architect one electronic copy of record documents as an e-mail attachment prior to submittal of Final Application for Payment but no later than 28 days after Substantial Completion date.
- B. Operation and Maintenance Data:
 - 1. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within 10 ten days after acceptance.
 - 2. Compile all operation and maintenance data for each Section and submit as one submittal for each Section.
 - 3. Submit to Owner and Architect one electronic copy of operation and maintenance data for each Section as an e-mail attachment as required in paragraph 1.03.B.1 but no later than 42 days after Notice to Proceed.
 - 4. The submittal will be reviewed and returned with Owner's and Architect's comments or it will be accepted.
 - 5. Revise content of all returned documents as required by the comments.
 - 6. Submit one set of revised final documents for each Section in final form within 10 days after receipt of returned submittal.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

- A. Record actual revisions to the Work on Construction Documents provided by the Owner or on sketches developed by Contractor including:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications:
 - 1. Identify the product manufacturer selected for the Project in the acceptable manufacturer's paragraph in each Section.
 - 2. Identify product substitutions or alternates utilized including manufacturer, manufacturer's website address, and model number.

- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
1. Measured depths of foundations in relation to finish first floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 4. Field changes of dimension and detail.
 5. Details not on original Contract drawings.

3.02 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

- A. For Each Product, Applied Material, and Finish:
1. Product data, with catalog number, size, composition, and color and texture designations.
 2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional information as specified in individual product specification sections.
- E. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

3.03 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. For Each Item of Equipment and Each System:
1. Description of unit or system, and component parts.
 2. Identify function, normal operating characteristics, and limiting conditions.
 3. Include performance curves, with engineering data and tests.
 4. Complete nomenclature and model number of replaceable parts.
- B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- C. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- D. Include color coded wiring diagrams as installed.
- E. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- F. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- G. Provide servicing and lubrication schedule, and list of lubricants required.
- H. Include manufacturer's printed operation and maintenance instructions.
- I. Include sequence of operation by controls manufacturer.
- J. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- K. Provide control diagrams by controls manufacturer as installed.

- L. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- M. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- N. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- O. Include test and balancing reports.
- P. Additional Requirements: As specified in individual product specification sections.

END OF SECTION

**SECTION 040100
MAINTENANCE OF MASONRY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Chemical and Water cleaning of masonry surfaces.
- B. Replacement of mortar and caulk units.
- C. Repointing mortar joints.
- D. Repair of damaged masonry.

1.02 RELATED REQUIREMENTS

- A. Section 040511 - Masonry Mortaring and Grouting.
- B. Section 042000 - Unit Masonry: Brick masonry units.
- C. Section 042000 - Unit Masonry: Mortar and grout.
- D. Section 044200 - Exterior Stone Cladding.
- E. Section 044313 - Stone Masonry Veneer.

1.03 PRICE AND PAYMENT PROCEDURES

- A. See Section 012200 - Unit Prices, for additional unit price requirements.
- B. Brick Replacement: By the square foot. Includes _____.

1.04 REFERENCE STANDARDS

- A. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on cleaning compounds.
- C. Shop Drawings: Indicate setting details of stone. Detail shoring.
- D. Samples: Submit four samples of decorative block, face brick, stone, and prefaced block units to illustrate matching color, texture and extremes of color range.
- E. Manufacturer's Instructions: For cleaning materials, indicate special procedures, conditions requiring special attention.

1.06 QUALITY ASSURANCE - MASONRY WORK

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.
 - 1. Maintain one copy of each document on project site.
- B. Restorer: Company specializing in masonry restoration with minimum three years of documented experience.

1.07 MOCK-UPS

- A. Restore and repoint an existing masonry wall area sized 8 feet long by 6 feet high; include in mock-up area instances of mortar, accessories, wall openings, and flashings.
- B. Clean a 10 ft by 10 ft panel of wall to determine extent of cleaning.
 - 1. Repeat, using different cleaning methods for up to three different panels.
- C. Locate where directed.
- D. Acceptable panel and procedures employed will become the standard for work of this section.
- E. Acceptable mock-up may remain as part of the Work.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Deliver masonry neatly stacked and tied on pallets. Store clear of ground with adequate waterproof covering.
- B. Store acid solution and restoration cleaner materials in manufacturer's packaging.

1.09 FIELD CONDITIONS - MASONRY WORK

- A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

PART 2 PRODUCTS

2.01 CLEANING MATERIALS

- A. Cleaning Agent: Detergent type.
- B. Cleaning Agent: 0.5 lb of _____ mixture to one gallon of water.

2.02 MORTAR MATERIALS

2.03 MASONRY MATERIALS

- A. Brick: Section 042000.
- B. Stone Veneer: Section 044200.
- C. Block: Section 042000.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces to be cleaned are ready for work of this section.

3.02 PREPARATION

- A. Protect surrounding elements from damage due to restoration procedures.
- B. Carefully remove and store removable items located in areas to be restored, including fixtures, fittings, finish hardware, and accessories; reinstall upon completion.
- C. Separate areas to be protected from restoration areas using means adequate to prevent damage.
- D. Cover existing landscaping with tarpaulins or similar covers.
- E. Mask immediately adjacent surfaces with material that will withstand cleaning and restoration procedures.
- F. Protect roof membrane and flashings from damage with 1/2 inch plywood laid on roof surfaces over full extent of work area and traffic route.
- G. When using cleaning methods that involve water or other liquids, install drainage devices to prevent runoff over adjacent surfaces unless those surfaces are impervious to damage from runoff.
- H. Do not allow cleaning runoff to drain into sanitary or storm sewers.

3.03 REBUILDING

- A. Cut out damaged and deteriorated masonry with care in a manner to prevent damage to any adjacent remaining materials.
- B. Support structure as necessary in advance of cutting out units.
- C. Cut away loose or unsound adjoining masonry, mortar, and stone as directed.
- D. Build in new matching units following procedures for new work specified in other section(s).
- E. Mortar Mix: Colored and proportioned to match existing work.
- F. Ensure that anchors, ties, reinforcing, stone cramps and dowels, and flashings are correctly located and built in.

- G. Install built in masonry and stone work to match and align with existing, with joints and coursing true and level, faces plumb and in line. Build in all openings, accessories and fittings.

3.04 REPOINTING

- A. Perform repointing prior to cleaning masonry surfaces.
- B. Cut out loose or disintegrated mortar in joints to minimum 1/2 inch depth or until sound mortar is reached.
- C. Use power tools only after test cuts determine no damage to masonry units will result.
- D. Do not damage masonry units.
- E. When cutting is complete, remove dust and loose material by brushing.
- F. Premoisten joint and apply mortar. Pack tightly in maximum 1/4 inch layers. Form a smooth, compact same type of joint to match existing.
- G. Moist cure for 72 hours.

3.05 CLEANING EXISTING MASONRY

- A. Cleaning Detergent: Brush clean masonry surfaces at _____ locations with cleaning agent in accordance with the manufacturer's instructions. Saturate masonry with clean water and flush loose mortar and dirt.
- B. Chemical , ____ percent _____ chemical solution for brick masonry surfaces at all locations to remove existing paint coating and leave surface with uniform, natural color and texture.
- C. High Pressure Cold Water: Cold water blast with ____ psi pressure to brick masonry surfaces, at all locations, providing uniform finish.

3.06 CLEANING NEW MASONRY

- A. Verify mortar is fully set and cured.
- B. Clean surfaces and remove large particles with wood scrapers, brass or nylon wire brushes.
- C. Protect area below cleaning operation and keep _____ type masonry soaked with water and flushed free of acid and dissolved mortar continuously for duration of cleaning.
- D. Before solution dries, rinse and remove acid solution and dissolved mortar, using clean, pressurized water.

3.07 RESTORATION CLEANING

- A. Clean surfaces and remove large particles with wood scrapers or non-ferrous wire brush.
- B. Spray or Brush coat _____ type masonry with _____ restoration cleaner, mixed into solution in accordance with manufacturer's instructions.
- C. Provide a second application if required to match mock-up area.
- D. Allow sufficient time for solution to remain on masonry and agitate with soft fiber brush or sponge.
- E. Rinse from the bottom up with potable water applied at 400 psi and at a rate of 4 gal/min.

3.08 AGING

- A. Rub in new masonry work to match, as close as possible, adjacent original work.
 - 1. Use carbon black in small amounts, rubbing in well with medium bristle brush.
- B. After each application, dust off surplus and wash down with low pressure hose. Allow surface to dry before proceeding with succeeding applications.
- C. Continue process until acceptance.

3.09 CLEANING

- A. Immediately remove stains, efflorescence, or other excess resulting from the work of this section.

- B. Remove excess mortar, smears, and droppings as work proceeds and upon completion.
- C. Clean surrounding surfaces and grounds.

END OF SECTION

SECTION 040511
MASONRY MORTARING AND GROUTING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Mortar for masonry.
- B. Grout for masonry.

1.02 RELATED REQUIREMENTS

- A. Section 040100 - Maintenance of Masonry: Bedding and pointing mortar for masonry restoration work.
- B. Section 042000 - Unit Masonry: Installation of mortar and grout.
- C. Section 042300 - Glass Unit Masonry: Installation of mortar.
- D. Section 044313 - Stone Masonry Veneer: Installation of mortar.

1.03 REFERENCE STANDARDS

- A. ASTM C91/C91M - Standard Specification for Masonry Cement.
- B. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
- C. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar.
- D. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes.
- E. ASTM C270 - Standard Specification for Mortar for Unit Masonry.
- F. ASTM C404 - Standard Specification for Aggregates for Masonry Grout.
- G. ASTM C476 - Standard Specification for Grout for Masonry.
- H. ASTM C780 - Standard Test Methods for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.
- I. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete.
- J. ASTM C1019 - Standard Test Method for Sampling and Testing Grout for Masonry.
- K. ASTM C1072 - Standard Test Methods for Measurement of Masonry Flexural Bond Strength.
- L. ASTM C1314 - Standard Test Method for Compressive Strength of Masonry Prisms.
- M. ASTM C1714/C1714M - Standard Specification for Preblended Dry Mortar Mix for Unit Masonry.
- N. ASTM E518/E518M - Standard Test Methods for Flexural Bond Strength of Masonry.
- O. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Include design mix and indicate whether the Proportion or Property specification of ASTM C270 is to be used. Also include required environmental conditions and admixture limitations.
- C. Samples: Submit two samples of mortar, illustrating mortar color and color range. Matching existing adjoining construction is the goal. Resubmit as directed to achieve this goal.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.05 QUALITY ASSURANCE

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.
 - 1. Maintain one copy of each document on project site.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Maintain packaged materials clean, dry, and protected against dampness, freezing, and foreign matter.

1.07 FIELD CONDITIONS

- A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C1714/C1714M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
 - 1. Type: Types as scheduled in this section.
 - 2. Color: Mineral pigments added as required to produce approved color sample.
- B. Packaged Dry Material for Mortar for Repointing: Premixed Portland cement, hydrated lime, and graded sand; capable of producing Type O mortar in accordance with ASTM C270 with the addition of water only.
 - 1. Color: Mineral pigments added as required to produce approved color sample.
- C. Packaged Dry Material for Grout for Masonry: Premixed cementitious materials and dried aggregates; capable of producing grout of the specified strength in accordance with ASTM C476 with the addition of water only.
- D. Portland Cement: ASTM C150/C150M.
 - 1. Type: Type I - Normal; ASTM C150/C150M.
 - 2. Color: Color as required to produce approved color sample.
- E. Hydrated Lime: ASTM C207, Type SA.
- F. Mortar Aggregate: ASTM C144.
- G. Grout Aggregate: ASTM C404.
- H. Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C979/C979M.
 - 1. Color(s): To match Architect's sample(s) when incorporated into specified mix design(s).
 - 2. Manufacturers:
 - a. Davis Colors: www.daviscolors.com.
 - b. Lambert Corporation: www.lambertusa.com.
 - c. Substitutions: See Section 016000 - Product Requirements.
- I. Water: Clean and potable.
- J. Accelerating Admixture: Nonchloride type for use in cold weather.
- K. Moisture-Resistant Admixture: Water repellent compound designed to reduce capillarity.
- L. Plasticizer: as described in each Work Order.
- M. Retardant: as described in each Work Order.
- N. Bonding Agent: Latex type.
- O. Water-Repellent and Efflorescence-Control Mortar Mixture: Blended emulsion additive used in water-penetration-resistant and efflorescence-controlled masonry mortar.

2.02 MORTAR MIXING

- A. Thoroughly mix mortar ingredients using mechanical batch mixer, in accordance with ASTM C270 and in quantities needed for immediate use.
- B. Maintain sand uniformly damp immediately before the mixing process.

- C. Colored Mortar: Proportion selected pigments and other ingredients to match Architect's sample, without exceeding manufacturer's recommended pigment-to-cement ratio; mix in accordance with manufacturer's instructions, uniform in coloration.
- D. Add admixtures in accordance with manufacturer's instructions; mix uniformly.
- E. Do not use anti-freeze compounds to lower the freezing point of mortar.
- F. If water is lost by evaporation, re-temper only within two hours of mixing.

2.03 GROUT MIXING

- A. Mix grout in accordance with ASTM C94/C94M.
- B. Thoroughly mix grout ingredients in quantities needed for immediate use in accordance with ASTM C476 for fine and coarse grout.
- C. Do not use anti-freeze compounds to lower the freezing point of grout.

2.04 PRECONSTRUCTION TESTING

- A. Grout Mixes: Test grout batches in accordance with ASTM C1019 procedures.

PART 3 EXECUTION

3.01 PREPARATION

- A. Apply bonding agent to existing concrete surfaces.
- B. Plug clean-out holes for grouted masonry with brick masonry units. Brace masonry to resist wet grout pressure.

3.02 INSTALLATION

- A. Install mortar and grout to requirements of section(s) in which masonry is specified.
- B. Do not install grout in lifts greater than 16 inches without consolidating grout by rodding.

3.03 GROUTING

- A. Use either high-lift or low-lift grouting techniques, at Contractor's option, subject to other limitations of Contract Documents.
- B. Low-Lift Grouting:
 - 1. Limit height of pours to 12 inches.
 - 2. Limit height of masonry to 16 inches above each pour.
 - 3. Pour grout only after vertical reinforcing is in place; place horizontal reinforcing as grout is poured. Prevent displacement of bars as grout is poured.
 - 4. Place grout for each pour continuously and consolidate immediately; do not interrupt pours for more than 1-1/2 hours.
- C. High-Lift Grouting:
 - 1. Verify that horizontal and vertical reinforcement is in proper position and adequately secured before beginning pours.
 - 2. Brick: Limit pours to maximum 12 feet in height and 25 feet horizontally.
 - 3. Hollow Masonry: Limit lifts to maximum 4 feet and pours to maximum height of 24 feet.
 - 4. Place grout for spanning elements in single, continuous pour.

3.04 FIELD QUALITY CONTROL

- A. An independent testing agency will perform field tests, in accordance with provisions of Section 014000 - Quality Requirements.
- B. Test and evaluate mortar in accordance with ASTM C780 procedures.
 - 1. Test with same frequency as specified for masonry units.
- C. Test and evaluate grout in accordance with ASTM C1019 procedures.
 - 1. Test with same frequency as specified for masonry units.

- D. Prism Tests: Test masonry and mortar panels for compressive strength in accordance with ASTM C1314, and for flexural bond strength in accordance with ASTM C1072 or ASTM E518/E518M; perform tests and evaluate results as specified in individual masonry sections.

END OF SECTION

**SECTION 042000
UNIT MASONRY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Concrete block.
- B. Concrete building brick.
- C. Concrete facing brick.
- D. Clay Facing Brick.
- E. Common brick.
- F. Ceramic glazed face brick.
- G. Clay tile.
- H. Mortar and Grout.
- I. Reinforcement and Anchorage
- J. Flashings.
- K. Lintels.
- L. Accessories.

1.02 RELATED REQUIREMENTS

- A. Section 040100 - Maintenance of Masonry.
- B. Section 040511 - Masonry Mortaring and Grouting.
- C. Section 042300 - Glass Unit Masonry.
- D. Section 079200 - Joint Sealants: Sealing control and expansion joints.

1.03 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- B. ASTM A240/A240M - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
- C. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
- D. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- E. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement.
- F. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
- G. ASTM B370 - Standard Specification for Copper Sheet and Strip for Building Construction.
- H. ASTM C34 - Standard Specification for Structural Clay Loadbearing Wall Tile.
- I. ASTM C55 - Standard Specification for Concrete Building Brick.
- J. ASTM C56 - Standard Specification for Structural Clay Nonloadbearing Tile.
- K. ASTM C62 - Standard Specification for Building Brick (Solid Masonry Units Made from Clay or Shale).
- L. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units.
- M. ASTM C126 - Standard Specification for Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units.

- N. ASTM C129 - Standard Specification for Nonloadbearing Concrete Masonry Units.
- O. ASTM C212 - Standard Specification for Structural Clay Facing Tile.
- P. ASTM C216 - Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale).
- Q. ASTM C1634 - Standard Specification for Concrete Facing Brick and Other Concrete Masonry Facing Units.
- R. ASTM D226/D226M - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- S. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane.
- T. BIA Technical Notes No. 7 - Water Penetration Resistance – Design and Detailing.
- U. BIA Technical Notes No. 13 - Ceramic Glazed Brick Exterior Walls.
- V. BIA Technical Notes No. 28B - Brick Veneer/Steel Stud Walls.
- W. BIA Technical Notes No. 46 - Maintenance of Brick Masonry.
- X. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data for masonry units, fabricated wire reinforcement, and masonry accessories.
- C. Samples: Submit four samples of facing brick, ceramic glazed facing brick, and ceramic glazed structural clay facing tile units to illustrate size, color, texture, and extremes of color range.
- D. Manufacturer's Certificate: Certify that masonry units meet or exceed specified requirements.

1.05 QUALITY ASSURANCE

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.
- B. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section with minimum three years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.06 MOCK-UPS

- A. Construct a masonry wall as a mock-up panel sized 8 feet long by 6 feet high; include mortar, accessories, structural backup, and flashings (with lap joint, corner, and end dam) in mock-up.
- B. Locate where directed.
- C. Mock-up may remain as part of the Work if approved.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.
- B. Where applicable, handle and store ceramic glazed masonry units and pre-faced concrete block units in protective cartons or trays. Do not remove from protective packaging until ready for installation.

PART 2 PRODUCTS

2.01 CONCRETE MASONRY UNITS

- A. Concrete Block: Comply with referenced standards and as follows:

1. Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depths as indicated on drawings for specific locations.
 2. Special Shapes: Provide nonstandard blocks configured for corners.
 - a. Provide bullnose units for outside corners.
 3. Load-Bearing Units: ASTM C90, normal weight.
 - a. Both hollow and solid block, as indicated.
 - b. Exposed Faces: Manufacturer's standard color and texture where indicated.
 - c. Pattern: Vertical single score.
 4. Nonloadbearing Units: ASTM C129.
 - a. Hollow block, as indicated.
 - b. Normal weight.
- B. Concrete Brick:
1. Size: As indicated on drawings.
 2. Concrete Building Brick: ASTM C55; lightweight, solid, for interior or concealed use.
 3. Concrete Facing Brick: ASTM C1634; solid, lightweight; for architectural, paver, and below grade use.

2.02 BRICK UNITS

- A. Manufacturers:
1. Acme Brick; : www.acme.com
 2. General Shale Brick: www.generalshale.com.
 3. Midwest Block and Brick; www.midwestblock.com.
 4. Missouri Brick; www.missouribrickco.com
 5. Richards Brick; www.richardsbrick.com
 6. Substitutions: See section 016000 - Product Requirements.
- B. Facing Brick: ASTM C216, Type FBS Smooth, Grade SW.
1. Color and texture to match Architect's sample.
 2. Nominal size: As indicated on drawings.
 3. Special shapes: Molded units as required by conditions indicated, unless standard units can be sawn to produce equivalent effect.
- C. Building (Common) Brick: ASTM C62, Grade SW; solid units.
1. Nominal size: As indicated on drawings.
- D. Ceramic Glazed Face Brick: ASTM C126, Grade S (Select), Type I (single-faced units).
1. Color and texture: as indicated in each work order.
 2. Nominal size: As indicated on drawings.
 3. Special shapes: Molded units as required by conditions indicated, unless standard units can be sawn without chipping glaze to produce equivalent effect.

2.03 CLAY TILE UNITS

- A. Manufacturers:
1. Elgin Butler Company: www.elginbutler.com.
 2. Boral Roofing; www.boralamerica.com/roofing/clay.
 3. Substitutions: See section 016000 - Product Requirements.
- B. Structural Clay Load-Bearing Wall Tile: ASTM C34, Grade LBX; end-construction type; plaster-base finish.
1. Color and texture to match Architect's sample.
 2. Nominal size: As indicated on drawings.
 3. Special shapes: Molded units as required by conditions indicated, unless standard units can be sawn to produce equivalent effect.
- C. Structural Clay Nonloadbearing Tile: ASTM C56, Grade NB; plaster-base finish.
1. Color and texture to match Architect's sample.
 2. Nominal size: As indicated on drawings.

3. Special shapes: Molded units as required by conditions indicated, unless standard units can be sawn to produce equivalent effect.
- D. Structural Clay Facing Tile: ASTM C212, Type FTS smooth and rough faces; Standard Class; single-face units; end-construction type.
 1. Color and texture to match Architect's sample.
 2. Nominal size: As indicated on drawings.
 3. Special shapes: Molded units as required by conditions indicated, unless standard units can be sawn to produce equivalent effect.

2.04 MORTAR AND GROUT MATERIALS

- A. Mortar and Grout: As specified in Section 040511.

2.05 REINFORCEMENT AND ANCHORAGE

- A. Reinforcing steel shall have a galvanized finish with no less than 10% surface rust.
- B. Manufacturers:
 1. Blok-Lok Limited: www.blok-lok.com.
 2. Dur-O- Wall: www.dur-O-wal.com
 3. Hohmann & Barnard, Inc; X-Seal Anchor: www.h-b.com/#sle.
 4. WIRE-BOND: www.wirebond.com/#sle.
 5. Substitutions: See Section 016000 - Product Requirements.
- C. Reinforcing Steel: ASTM A615/A615M, Grade 40 (40,000 psi), deformed billet bars; galvanized.
- D. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.
- E. Single Wythe Joint Reinforcement: ASTM A951/A951M.
- F. Multiple Wythe Joint Reinforcement: ASTM A951/A951M.
- G. Adjustable Multiple Wythe Joint Reinforcement: ASTM A951/A951M.
 1. Type: Truss, with adjustable ties or tabs spaced at 16 in on center.
 2. Material: ASTM A1064/A1064M steel wire, hot dip galvanized after fabrication to ASTM A153/A153M Class B.
 3. Size: 0.1875 inch side rods with 0.1483 inch cross rods and adjustable components of 0.1875 inch wire, width of components as required to provide not less than 5/8 inch of mortar coverage from each masonry face.
 4. Vertical adjustment: Not more than 1 1/4 inches.
 5. Seismic Feature: Provide lip, hook, or clip on extended leg of wall ties to engage or enclose not less than one continuous horizontal joint reinforcement wire of 0.1483 inch diameter.
- H. Strap Anchors: Bent steel shapes, 1-1/2 inch width, 0.105 inch thick, 24 inch length, with 1-1/2 inch long, 90 degree bend at each end to form a U or Z shape or with cross pins, hot dip galvanized to ASTM A153/A153M Class B.
- I. Flexible Anchors: 2-piece anchors that permit differential movement between masonry and building frame, sized to provide not less than 5/8 inch of mortar coverage from masonry face.
- J. Residential Wall Ties: Corrugated formed sheet metal, 7/8 inch wide by 0.05 inch thick, hot dip galvanized to ASTM A 153/A 153M, Class B, sized to extend at least 1-1/2 inches into the veneer with at least 5/8 inch of mortar coverage from masonry face.
- K. Two-Piece Wall Ties: Formed steel wire, 0.1875 inch thick, adjustable, eye and pintle type, hot dip galvanized to ASTM A 153/A 153M, Class B, sized to provide not less than 5/8 inch of mortar coverage from masonry face and to allow vertical adjustment of up to 1-1/4 in.
- L. Masonry Veneer Anchors: 2-piece anchors that permit differential movement between masonry veneer and structural backup, hot dip galvanized to ASTM A 153/A 153M, Class B.

1. Anchor plates: Not less than 0.075 inch thick, designed for fastening to structural backup through sheathing by two fasteners; provide design with legs that penetrate sheathing and insulation to provide positive anchorage.
 2. Wire ties: Manufacturer's standard shape, 0.1875 inch thick.
 3. Vertical adjustment: Not less than 3-1/2 inches.
 4. Seismic Feature: Provide lip, hook, or clip on end of wire ties to engage or enclose not less than one continuous horizontal joint reinforcement wire of 0.1483 inch diameter.
- M. Metal-to-Metal Fasteners: Self-drilling, self-tapping screws; corrosion resistant finish or hot dip galvanized to ASTM A153/A153M.
1. Manufacturers:
 - a. ITW Commercial Construction North America; Teks Select Series: www.ITWBuildex.com.
 - b. Substitutions: See Section 016000 - Product Requirements.

2.06 FLASHINGS

- A. Metal Flashing Materials:
1. Copper Flashing: ASTM B370, 060 soft annealed; 20 oz/sq ft thick; natural finish.
 2. Stainless Steel Flashing: ASTM A666, Type 304, soft temper; 26 gauge, 0.0187 inch thick; finish 2B to 2D.
- B. Copper/Kraft Paper Flashings: 3 oz/sq ft sheet copper bonded to fiber reinforced asphalt treated Kraft paper.
- C. Stainless Steel/Polymer Fabric Flashing: ASTM A240/A240M; 2 mil type 304 stainless steel sheet bonded on one side to one sheet of polymer fabric.
1. Manufacturers:
 - a. Hohmann & Barnard, Inc; Mighty-Flash Stainless Flashing: www.h-b.com/#sle.
 - b. York Flashings; Multi-Flash SS: www.yorkflashings.com/#sle.
 - c. Substitutions: See Section 016000 - Product Requirements.
- D. EPDM Flashing: ASTM D4637/D4637M, Type I, 0.040 inch thick.
- E. Rubberized Asphalt Flashing: Self-adhering polymer modified asphalt sheet; 40 mils (0.040 inch) minimum total thickness; with cross laminated polyethylene top and bottom surfaces.
- F. Flashing Sealant/Adhesives: Silicone, polyurethane, or silyl-terminated polyether/polyurethane or other type required or recommended by flashing manufacturer; type capable of adhering to type of flashing used.
- G. Drip Edge: Stainless steel; angled drip with hemmed edge; compatible with membrane and adhesives.
- H. Lap Sealants and Tapes: As recommended by flashing manufacturer; compatible with membrane and adhesives.

2.07 ACCESSORIES

- A. Preformed Control Joints: Rubber material. Provide with corner and tee accessories, fused joints.
1. Manufacturers:
 - a. Blok-Lok Limited: www.blok-lok.com.
 - b. Dur-O-Wal: www.dur-o-wal.com
 - c. Hohmann & Barnard, Inc: www.h-b.com/sle.
 - d. WIRE-BOND; _____: www.wirebond.com/#sle.
 - e. Substitutions: See Section 016000 - Product Requirements.
- B. Joint Filler: Closed cell polyvinyl chloride; oversized 50 percent to joint width; self expanding; in maximum lengths available.
1. Manufacturers:
 - a. Hohmann & Barnard, Inc: www.h-b.com/sle.

- b. WIRE-BOND; _____: www.wirebond.com/#sle.
 - c. Substitutions: See Section 016000 - Product Requirements.
- C. Cavity Mortar Control: Semi-rigid polyethylene or polyester mesh panels, sized to thickness of wall cavity, and designed to prevent mortar droppings from clogging weeps and cavity vents and allow proper cavity drainage.
- D. Building Paper: ASTM D226/D226M, Type I ("No.15") asphalt felt.
- E. Nailing Strips: Softwood lumber, preservative treated for moisture resistance, dovetail shape, sized to masonry joints.
- F. Weeps Type: Polyethylene tubing.
- G. Color(s): as indicated in each Work Order
 - 1. Manufacturers:
 - a. Blok-Lok Limited: www.blok-lok.com.
 - b. CavClear, a Division of Archovations Inc; _____: www.cavclear.com/#sle.
 - c. Hohmann & Barnard, Inc: www.h-b.com/sle.
 - d. WIRE-BOND: www.wirebond.com.
 - e. Substitutions: See Section 016000 - Product Requirements.
- H. Cavity Vents Type: Polyester mesh.
- I. Drainage Fabric: Polyester or polypropylene mesh bonded to a water and vapor-permeable fabric.
 - 1. Manufacturers:
 - a. Advanced Building Products, Inc; Mortairvent: www.advancedbuildingproducts.com/#sle.
 - b. Mortar Net Solutions: www.mortarnet.com.
 - c. York Flashings; Weep Armor Weep Vent Protection: www.yorkflashings.com/#sle.
 - d. Substitutions: See Section 016000 - Product Requirements.
- J. Chimney Cap: Precast concrete, sized to cover chimney construction plus additional overhang for drip on four sides, thickness as indicated, sloped from flue opening to edges for natural drainage.
- K. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive masonry.
- B. Verify that related items provided under other sections are properly sized and located.
- C. Verify that built-in items are in proper location, and ready for roughing into masonry work.

3.02 PREPARATION

- A. Direct and coordinate placement of metal anchors supplied for installation under other sections.
- B. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

3.03 COLD AND HOT WEATHER REQUIREMENTS

- A. Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

3.04 COURSING

- A. Establish lines, levels, and coursing indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
- C. Concrete Masonry Units:

1. Bond: Running.
 2. Coursing: One unit and one mortar joint to equal 8 inches.
 3. Mortar Joints: Concave.
- D. Brick Units:
1. Bond: Running.
 2. Coursing: Three units and three mortar joints to equal 8 inches.
 3. Mortar Joints: Concave.
- E. Clat Tile Units:
1. Bond: Running.
 2. Coursing: One unit and one mortar joint to equal 8 inches.
 3. Mortar Joints: Concave.

3.05 PLACING AND BONDING

- A. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.
- B. Lay hollow masonry units with face shell bedding on head and bed joints.
- C. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.
- D. Remove excess mortar and mortar smears as work progresses.
- E. Remove excess mortar with water repellent admixture promptly. Do not use acids, sandblasting or high pressure cleaning methods.
- F. Interlock intersections and external corners, except for units laid in stack bond.
- G. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
- H. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.
- I. Cut mortar joints flush where wall tile is scheduled or resilient base is scheduled.
- J. Isolate masonry partitions from vertical structural framing members with a control joint as indicated.
- K. Isolate top joint of masonry partitions from horizontal structural framing members and slabs or decks with compressible joint filler.
- L. Lay clay tile flue linings vertically, embedded in concrete block units.
- M. Place precast chimney cap atop chimney masonry; mortar into place; seal to protruding flue.

3.06 WEEPS/CAVITY VENTS

- A. Install weeps in veneer and cavity walls at 24 inches on center horizontally on top of through-wall flashing above shelf angles and lintels and at bottom of walls.
- B. Install cavity vents in veneer and cavity walls at 32 inches on center horizontally below shelf angles and lintels and near top of walls.

3.07 CAVITY MORTAR CONTROL

- A. Do not permit mortar to drop or accumulate into cavity air space or to plug weep/cavity vents.

3.08 REINFORCEMENT AND ANCHORAGE - GENERAL

- A. Unless otherwise indicated on drawings or specified under specific wall type, install horizontal joint reinforcement 16 inches on center.
- B. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 16 inches each side of opening.
- C. Place continuous joint reinforcement in first and second joint below top of walls.
- D. Lap joint reinforcement ends minimum 6 inches.

- E. Reinforce stacked bonded unit joint corners and intersections with strap anchors 16 inches 16 inches on center.
- F. Fasten anchors to structural framing and embed in masonry joints as masonry is laid. Unless otherwise indicated on drawings or closer spacing is indicated under specific wall type, space anchors at maximum of 36 inches horizontally and 16 inches vertically.

3.09 REINFORCEMENT AND ANCHORAGE - MASONRY VENEER

- A. Masonry Back-Up: Embed anchors to bond veneer at maximum 16 inches on center vertically and 36 inches on center horizontally. Place additional anchors at perimeter of openings and ends of panels, so maximum spacing of anchors is 8 inches on center.
- B. Stud Back-Up: Secure veneer anchors to stud framed back-up and embed into masonry veneer at maximum 16 inches on center vertically and 24 inches on center horizontally. Place additional anchors at perimeter of openings and ends of panels, so maximum spacing of anchors is 8 inches on center.
- C. Seismic Reinforcement: Connect veneer anchors with continuous horizontal wire reinforcement before embedding anchors in mortar.

3.10 REINFORCEMENT AND ANCHORAGES - MULTIPLE WYTHE UNIT MASONRY

- A. Use individual metal ties installed in horizontal joints to bond wythes together. Provide ties spaced as indicated on drawings.
- B. Support and secure reinforcing bars from displacement. Maintain position within 1/2 inch of dimensioned position.

3.11 MASONRY FLASHINGS

- A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
 - 1. Extend flashings full width at such interruptions and at least 6 inches, minimum, into adjacent masonry or turn up flashing ends at least 1 inch, minimum, to form watertight pan at nonmasonry construction.
 - 2. Remove or cover protrusions or sharp edges that could puncture flashings.
 - 3. Seal lapped ends and penetrations of flashing before covering with mortar.
- B. Extend metal flashings to within 1/2 inch of exterior face of masonry and adhere to top of stainless steel angled drip with hemmed edge.
- C. Extend plastic, laminated, EPDM, and _____ flashings to within 1/2 inch of exterior face of masonry and adhere to top of stainless steel angled drip with hemmed edge.
- D. Lap end joints of flashings at least 6 inches, minimum, and seal watertight with flashing sealant/adhesive.

3.12 LINTELS

- A. Install precast concrete lintels over openings.
- B. Install reinforced unit masonry lintels over openings where steel or precast concrete lintels are not scheduled.
 - 1. Openings to 42 inches: Place two, No. 3 reinforcing bars 1 inch from bottom web.
 - 2. Openings from 42 inches to 78 inches: Place two, No. 5 reinforcing bars 1 inch from bottom web.
 - 3. Openings over 78 inches: Reinforce openings as detailed.
 - 4. Do not splice reinforcing bars.
 - 5. Support and secure reinforcing bars from displacement. Maintain position within 1/2 inch of dimensioned position.
 - 6. Place and consolidate grout fill without displacing reinforcing.
 - 7. Allow masonry lintels to attain specified strength before removing temporary supports.
- C. Maintain minimum 4 inch bearing on each side of opening.

3.13 GROUTED COMPONENTS

- A. Reinforce bond beams with 2, No. 3 bars, 1 inch from bottom web.
- B. Lap splices minimum 24 bar diameters.
- C. Support and secure reinforcing bars from displacement. Maintain position within 1/2 inch of dimensioned position.
- D. Place and consolidate grout fill without displacing reinforcing.
- E. At bearing locations, fill masonry cores with grout for a minimum 12 inches either side of opening.

3.14 CONTROL AND EXPANSION JOINTS

- A. Do not continue horizontal joint reinforcement through control or expansion joints.
- B. Install preformed control joint device in continuous lengths. Seal butt and corner joints in accordance with manufacturer's instructions.
- C. Size control joints as indicated on drawings; if not indicated, 3/4 inch wide and deep.

3.15 BUILT-IN WORK

- A. As work progresses, install built-in metal door frames, glazed frames, fabricated metal frames, window frames, wood nailing strips, anchor bolts, and plates and other items to be built into the work and furnished under other sections.
- B. Install built-in items plumb, level, and true to line.
- C. Bed anchors of metal door and glazed frames in adjacent mortar joints. Fill frame voids solid with grout.
 - 1. Fill adjacent masonry cores with grout minimum 12 inches from framed openings.
- D. Do not build into masonry construction organic materials that are subject to deterioration.

3.16 TOLERANCES

- A. Maximum Variation from Alignment of Columns: 1/4 inch.
- B. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.
- C. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.
- D. Maximum Variation from Plumb: 1/4 inch per story non-cumulative; 1/2 inch in two stories or more.
- E. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.
- F. Maximum Variation of Mortar Joint Thickness: Head joint, minus 1/4 inch, plus 3/8 inch.
- G. Maximum Variation from Cross Sectional Thickness of Walls: 1/4 inch.

3.17 CUTTING AND FITTING

- A. Cut and fit for chases. Coordinate with other sections of work to provide correct size, shape, and location.
- B. Obtain approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

3.18 FIELD QUALITY CONTROL

- A. An independent testing agency will perform field quality control tests, as specified in Section 014000 - Quality Requirements.

3.19 CLEANING

- A. Remove excess mortar and mortar droppings.
- B. Replace defective mortar. Match adjacent work.
- C. Clean soiled surfaces with cleaning solution.

- D. Use non-metallic tools in cleaning operations.

3.20 PROTECTION

- A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

END OF SECTION

**SECTION 042300
GLASS UNIT MASONRY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Glass masonry units.
- B. Setting and pointing materials.
- C. Perimeter treatment.

1.02 RELATED REQUIREMENTS

- A. Section 040511 - Masonry Mortaring and Grouting: Mortar for glass unit masonry.

1.03 REFERENCE STANDARDS

- A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- B. ASTM A580/A580M - Standard Specification for Stainless Steel Wire.
- C. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data for glass units and accessories.
- C. Samples: Submit two glass units and two curved units illustrating color, design, and face pattern.
- D. Manufacturer's Installation Instructions: Indicate special procedures, positioning of reinforcement, perimeter conditions requiring special attention.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum five years of documented experience.

1.06 MOCK-UPS

- A. Provide one mock-up, 4 feet long by 4 feet high; include glass units with head, jamb, and sill conditions, and perimeter chase and construction.
- B. Locate where directed.
- C. Acceptable mock-up may remain as part of the Work.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Accept glass units on site on pallets; inspect for damage.

1.08 FIELD CONDITIONS

- A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

PART 2 PRODUCTS

2.01 GLASS UNITS

- A. Manufacturers:
 - 1. Nippon Electric Glass Co. Ltd; as described in each Work Order: www.neg.co.jp/arch.

2. Pittsburgh Corning Corporation; ; as described in each Work Order; www.pittsburghcorning.com
 3. Weck Glass Blocks; as described in each Work Order; www.glashaus.com.
 4. Substitutions: See Section 016000 - Product Requirements.
- B. Hollow Glass Units: Unit core filled with white thermal insulation. Permanently seal hollow unit by heat fusing joint; with joint key to assist mortar bond.
1. Provide specially shaped units where indicated, including corners, curved units, end units, and _____.
 2. Nominal Size: as described in each Work Order.
 3. Color: Clear glass.
 4. Pattern and Design: as described in each Work Order.
 5. Insulation Value: U value as described in each Work Order.
 6. Compressive Strength: 400-600 psi.
 7. Visible Light Transmittance: as described in each Work Order..
 8. Shading Coefficient as described in each Work Order.
- C. Solid Glass Units: Made of one piece of glass with joint key to assist mortar bond.
1. Provide specially shaped units where indicated, including corners, curved units, and end units.
 2. Nominal Size: as described in each Work Order.
 3. Color: Clear glass.
 4. Pattern and Design: as described in each Work Order.
 5. Compressive Strength: 400-600 psi.
 6. Visible Light Transmittance: as described in each Work Order.
 7. Shading Coefficient: as described in each Work Order.

2.02 ACCESSORIES

- A. Single Wythe Joint Reinforcement: ASTM A951/A951M.
1. Type: Ladder.
 2. Material: Stainless steel complying with ASTM A580/A580M Type 304.
 3. Size: 0.1483-inch side rods with 0.1483-inch cross rods; width as required to provide not less than 5/8 inch of mortar coverage on each exposure.
- B. Expansion Strips: Dense glass fiber matting, 7/16 inches by 4 inches nominal size.
- C. Panel Anchors: Steel strips, at least 20 gauge, 0.0359 inch thick by 1-3/4 inches wide; punched with three rows of elongated holes, pattern staggered, hot-dip galvanized to ASTM A123/A123M.
- D. Perimeter Channel: Extruded aluminum channel profile, ____-inch by 1-1/4-inch by 1/8-inch size, one piece per length installed, uncoated finish.
- E. Asphalt Emulsion: Water based.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that openings are ready to receive work.

3.02 PREPARATION

- A. Clean glass units of substances that may impair bond with mortar or sealant.
- B. Establish and protect lines, levels, and coursing.
- C. Protect elements surrounding the work of this section from damage and disfigurement.

3.03 INSTALLATION - GLASS UNITS

- A. Erect glass units and accessories in accordance with manufacturer's instructions.
- B. Locate and secure perimeter metal channel.

- C. Coat sill under units with asphalt emulsion as a bond breaker, and allow to dry.
- D. Set panel anchors in mortar bed directly over coating.
- E. Provide full mortar joints. Furrowing is not permitted. Remove excess mortar.
- F. Maintain uniform joint width of 1/4 inch.
- G. Place panel reinforcement at every second horizontal joint in full mortar bed and at first course above and below openings within the glass unit panel.
- H. Lap reinforcement joints 6 inches. Discontinue reinforcement at expansion joints.
- I. Isolate panel from adjacent construction on sides and top with expansion strips concealed within perimeter trim. Keep expansion joint voids clear of mortar.
- J. Shore assembly until setting bed will maintain panel in position without movement.
- K. Pointing With Mortar:
 - 1. Before mortar sets, rake out joints to depth of 5/8 to 3/4 inch.
 - 2. Fill joints with pointing mortar; press into joint to eliminate voids; neatly tool surface to a concave profile.
 - 3. Remove excess pointing mortar.
- L. Pointing With Sealant: Install sealant in accordance with sealant manufacturer's instructions.
 - 1. Before mortar sets, rake out joints to depth equal to and not deeper than joint width.
 - 2. After mortar is cured, place bond breaker tape on back surface of joint.
 - 3. Apply pointing sealant to joints; press into joint to eliminate voids; neatly tool surface to concave profile.
 - 4. Remove excess sealant.

3.04 TOLERANCES

- A. Variation From Joint Width: Plus 1/8 inch and minus 0 inches.
- B. Maximum Variation from Plane of Unit to Adjacent Unit: 1/32 inch.
- C. Maximum Variation of Panel from Plane: 1/8 inch.

3.05 CLEANING

- A. Clean and polish faces of glass unit masonry, using materials and technique that will not scratch or deface units.
- B. Clean exposed surfaces of aluminum grid with clean, soft cloth and mild hand soap using gentle rubbing action. Do not use abrasive or solvent type cleaners, detergents, or paint removers.

3.06 PROTECTION

- A. Maintain protective boards at exposed external corners of glass units. Provide protection without damaging completed work.

END OF SECTION

SECTION 311000 SITE CLEARING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Clearing and protection of vegetation.
- B. Removal of existing debris.

1.02 RELATED REQUIREMENTS

- A. Section 011000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 015000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- C. Section 017000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products.
- D. Section 017419 - Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.
- E. Section 312200 - Grading: Topsoil removal.
- F. Section 312200 - Grading: Fill material for filling holes, pits, and excavations generated as a result of removal operations.
- G. Section 312323 - Fill: Filling holes, pits, and excavations generated as a result of removal operations.
- H. Section 329300 - Plants: Relocation of existing trees, shrubs, and other plants.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

3.01 PREPARATION

- A. Call Missouri One Call System at 1-800-DIG-RITE (1-800-344-7483) not less than two working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.

3.02 SITE CLEARING

- A. Comply with other requirements specified in Section 017000.
- B. Minimize production of dust due to clearing operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

3.03 EXISTING UTILITIES AND BUILT ELEMENTS

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Protect existing structures and other elements that are not to be removed.

3.04 VEGETATION

- A. Scope: Remove trees, shrubs, brush, and stumps in areas to be covered by building structure, paving, playing fields, lawns, and planting beds.
- B. Do not begin clearing until vegetation to be relocated has been removed.
- C. Do not remove or damage vegetation beyond the limits indicated on drawings.

- D. Install substantial, highly visible fences at least 3 feet high to prevent inadvertent damage to vegetation to remain:
 - 1. At vegetation removal limits.
 - 2. See Section 015000 for fence construction requirements.
- E. In areas where vegetation must be removed but no construction will occur other than previous paving, remove vegetation with minimum disturbance of the subsoil.
- F. Vegetation Removed: Do not burn, bury, landfill, or leave on site.
- G. Restoration: If vegetation outside removal limits or within specified protective fences is damaged or destroyed due to subsequent construction operations, replace at no cost to Owner.

3.05 DEBRIS

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION

SECTION 312200 GRADING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Removal of topsoil.
- B. Rough grading the site for site structures and contouring the site.
- C. Topsoil and finish grading.

1.02 RELATED REQUIREMENTS

- A. Section 311000 - Site Clearing.
- B. Section 312316 - Excavation.
- C. Section 312323 - Fill: Filling and compaction.

1.03 SUBMITTALS

- A. Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Topsoil- Soil Type S2: Topsoil excavated on-site.
 - 1. Graded.
 - 2. Acidity range (pH) of 5.5 to 7.5.
 - 3. Containing a minimum of 4 percent and a maximum of 30 percent inorganic matter.
 - 4. Conforming to ASTM D2487 Group Symbol OL, OH, and PT.
 - 5. Limit decaying matter to 10 percent of total content by volume.
 - 6. Free of roots, rocks larger than 1/2 inch, subsoil, debris, large weeds and foreign matter.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that survey bench mark and intended elevations for the Work are as indicated.
- B. Verify the absence of standing or ponding water.

3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum.
- B. Call Missouri One Call System at 1-800-DIG-RITE (1-800-344-7483) not less than two working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- C. Stake and flag locations of known private utilities.
- D. Locate, identify, and protect from damage above- and below-grade utilities to remain.
- E. Provide temporary means and methods to remove all standing or ponding water from areas prior to grading.
- F. Protect site features to remain, including but not limited to bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs, from damage by grading equipment and vehicular traffic.

3.03 ROUGH GRADING

- A. Remove topsoil from areas to be further excavated, re-landscaped, or re-graded.
- B. Do not remove topsoil when wet.
- C. Remove subsoil from areas to be further excavated, re-landscaped, or re-graded.

- D. Do not remove wet subsoil , unless it is subsequently processed to obtain optimum moisture content.
- E. When excavating through roots, perform work by hand and cut roots with sharp axe.
- F. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.
- G. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack surface water control.
- H. Level and contour surfaces to elevations and gradients indicated.

3.04 SOIL REMOVAL AND STOCKPILING

- A. Remove excavated topsoil from site.
- B. Stockpile subsoil to be re-used on site; remove remainder from site.
- C. Stockpiles: Use areas designated on site; pile depth not to exceed 8 feet; protect from erosion.

3.05 FINISH GRADING

- A. Before Finish Grading:
 - 1. Verify subgrade has been contoured and compacted.
- B. Remove debris, roots, branches, stones, in excess of 1 inch in size. Remove soil contaminated with petroleum products.
- C. Where topsoil is to be placed, scarify surface to depth of 3 inches.
- D. In areas where vehicles or equipment have compacted soil, scarify surface to depth of 6 inches.
- E. Place topsoil in areas where sodding and planting are indicated.
- F. Place topsoil where required to level finish grade.
- G. Place topsoil to the following compacted thicknesses:
 - 1. Areas to be Sodded: 6 inches.
 - 2. Shrub Beds: 12 inches.
 - 3. Flower Beds: 12 inches.
 - 4. Curbed Planting Beds: At compacted thickness specified for shrub or flower beds to within 2 inches of top of curb elevation.
- H. Place topsoil during dry weather.
- I. Remove roots, weeds, rocks, and foreign material while spreading.
- J. Near plants and buildings spread topsoil manually to prevent damage.
- K. Fine grade topsoil to eliminate uneven areas and low spots. Maintain profiles and contour of subgrade.
- L. Roll placed topsoil.
- M. Maintain stability of topsoil during inclement weather. Replace topsoil in areas where surface water has eroded thickness below specifications.

3.06 TOLERANCES

- A. Top Surface of Subgrade: Plus or minus 0.10 foot (1-3/16 inches) from required elevation.
- B. Top Surface of Finish Grade: Plus or minus 0.04 foot (1/2 inch).
- C. Top Surface of Finish Grade at Curbs and Sidewalks: Top of curb or sidewalk elevation or greater.
- D. Top Surface of Finish Grade at Pavement Edges: Top of pavement elevation.

3.07 REPAIR AND RESTORATION

- A. Existing Facilities, Utilities, and Site Features to Remain: If damaged due to this work, repair or replace to original condition at no cost to Owner.

- B. Trees to Remain: If damaged due to this work, trim broken branches and repair bark wounds; if root damage has occurred, obtain instructions from Architect as to remedy.
- C. Other Existing Vegetation to Remain: If damaged due to this work, replace with vegetation of equivalent species and size.

3.08 FIELD QUALITY CONTROL

- A. See Section 312323 - Fill for compaction density testing.

3.09 CLEANING

- A. Remove unused stockpiled subsoil. Grade stockpile area to prevent standing water.
- B. Leave site clean and raked, ready to receive landscaping.

END OF SECTION

SECTION 312316 EXCAVATION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Excavating for site structures.

1.02 RELATED REQUIREMENTS

- A. Section 017000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring. General requirements for dewatering of excavations and water control.
- B. Section 312200 - Grading: Soil removal from surface of site.
- C. Section 312200 - Grading: Grading.
- D. Section 312323 - Fill: Fill materials, backfilling, and compacting.

PART 2 PRODUCTS -

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that survey bench mark and intended elevations for the work are as indicated.

3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum locations.
- B. Call Missouri One Call System at 1-800-DIG-RITE (1-800-344-7483) not less than two working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- C. See Section 312200 for topsoil removal.

3.03 EXCAVATING

- A. Underpin adjacent structures that could be damaged by excavating work.
- B. Excavate to accommodate new structures and construction operations.
- C. Notify Architect of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.
- D. Slope banks of excavations deeper than 4 feet to angle of repose or less until shored.
- E. Do not interfere with 45 degree bearing splay of foundations.
- F. Cut utility trenches wide enough to allow inspection of installed utilities.
- G. Hand trim excavations. Remove loose matter.
- H. Correct areas that are over-excavated and load-bearing surfaces that are disturbed; see Section 312323.
- I. Provide temporary means and methods, as required, to remove all water from excavations until directed by Architect. Remove and replace soils deemed suitable by classification and which are excessively moist due to lack of dewatering or surface water control.
- J. Determine the prevailing groundwater level prior to excavation. If the proposed excavation extends less than 1 foot into the prevailing groundwater, control groundwater intrusion with perimeter drains routed to sump pumps, or as directed by the Architect. If the proposed excavation extends more than 1 foot into the excavation, control groundwater intrusion with a comprehensive dewatering procedures, or as directed by the Geotechnical Engineer.
- K. Remove excavated material that is unsuitable for re-use from site.

- L. Stockpile excavated material to be re-used in area designated on site in accordance with Section 312200.
- M. Remove excess excavated material from site.

3.04 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for general requirements for field inspection and testing.
- B. Provide for visual inspection of load-bearing excavated surfaces by Architect before placement of foundations.

3.05 PROTECTION

- A. Divert surface flow from rains or water discharges from the excavation.
- B. Prevent displacement of banks and keep loose soil from falling into excavation; maintain soil stability.
- C. Protect open excavations from rainfall, runoff, freezing groundwater, or excessive drying so as to maintain foundation subgrade in satisfactory, undisturbed condition.
- D. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.
- E. Keep excavations free of standing water and completely free of water during concrete placement.

END OF SECTION

SECTION 312323
FILL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Filling, backfilling, and compacting for paving and site structures.
- B. Filling holes, pits, and excavations generated as a result of removal (demolition) operations.

1.02 RELATED REQUIREMENTS

- A. Section 312200 - Grading: Removal and handling of soil to be re-used.
- B. Section 312200 - Grading: Site grading.
- C. Section 312316 - Excavation: Removal and handling of soil to be re-used.

1.03 DEFINITIONS

- A. Finish Grade Elevations: Indicated on drawings.
- B. Subgrade Elevations: Indicated on drawings.

1.04 REFERENCE STANDARDS

- A. ASTM C136/C136M - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
- B. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
- C. ASTM D1556/D1556M - Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method.
- D. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
- E. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).
- F. ASTM D4318 - Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
- G. ASTM D6938 - Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Samples: 10 pounds sample of each type of imported fill; submit in air-tight containers to testing laboratory.
- C. Materials Sources: Submit name of imported materials source.
- D. Fill Composition Test Reports: Results of laboratory tests on proposed and actual materials used, including manufactured fill.
- E. Compaction Density Test Reports by Owner's Testing Agency.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. When necessary, store materials on site in advance of need.
- B. When fill materials need to be stored on site, locate stockpiles where designated.
 - 1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
 - 2. Prevent contamination.
 - 3. Protect stockpiles from erosion and deterioration of materials.

PART 2 PRODUCTS

2.01 FILL MATERIALS

- A. General Fill- Fill Type S1: Subsoil excavated on site or imported borrow material.
 - 1. Graded.
 - 2. Free of lumps larger than 3 inches, rocks larger than 2 inches, and debris.
 - 3. Complying with ASTM D2487 Group Symbol CL.
- B. Concrete for Fill: Lean concrete Minimum compressive strength of 2500 psi.
- C. Granular Fill - Fill Type A1: Coarse aggregate, conforming to County of St. Louis Department of Highways and Traffic standard specification section 1007 - Aggregate Base Material, Type 5.
 - 1. Graded in accordance with ASTM C 136, within the following limits:
 - a. 1 inch sieve: 100 percent passing.
 - b. 1/2 inch sieve: 90 to 60 percent passing.
 - c. No. 4 sieve: 60 to 35 percent passing.
 - d. No. 30 sieve: 35 to 10 percent passing.
 - e. No. 200 sieve: 15 to 0 percent passing.
 - f. The fraction passing the No. 40 sieve shall have a maximum plasticity index of 6.
- D. Granular Fill Replacing Unsuitable Soil - Fill Type A2: Coarse aggregate, conforming to ASTM D448 standard specification size number 357.
 - 1. Graded in accordance with ASTM C 136, within the following limits:
 - a. 2-1/2 inch sieve: 100 percent passing.
 - b. 2 inch sieve: 100 to 95 percent passing.
 - c. 1 inch sieve: 70 to 35 percent passing.
 - d. 1/2 inch sieve: 30 to 10 percent passing.
 - e. No. 4 sieve: 5 to 0 percent passing.
- E. Granular Fill for Drainage - Fill Type A3: Coarse aggregate, conforming to County of St. Louis Department of Highways and Traffic standard specification section 1009 - Aggregate For Drainage, Grade 3.
 - 1. Graded in accordance with ASTM C 136, within the following limits:
 - a. 1 inch sieve: 100 percent passing.
 - b. 3/4 inch sieve: 100 to 85 percent passing.
 - c. 3/8 inch sieve: 55 to 15 percent passing.
 - d. No. 4 sieve: 10 to 0 percent passing.
- F. Topsoil: See Section 312200.

2.02 ACCESSORIES

- A. Geotextile Stabilization Fabric: Non-biodegradable, woven; Mirafi-HP570 manufactured by TenCate. www.tencate.com
- B. Substitutions: See Section 016000 - Product Requirements.

2.03 SOURCE QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for general requirements for testing and analysis of soil material.
- B. Where fill materials are specified by reference to a specific standard, testing of samples for compliance will be provided before delivery to site.
- C. If tests indicate materials do not meet specified requirements, change material and retest.
- D. Provide materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that survey bench marks and intended elevations for the Work are as indicated.

- B. Identify required lines, levels, contours, and datum locations.
- C. See Section 312200 - Grading for additional requirements.
- D. Verify subdrainage, dampproofing, or waterproofing installation has been inspected.
- E. Verify structural ability of unsupported walls to support imposed loads by the fill.
- F. Verify areas to be filled are not compromised with surface or ground water.

3.02 PREPARATION

- A. Scarify and proof roll subgrade surface to a depth of 6 inches to identify soft spots.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with Concrete Fill Type S1 Fill Type A1 or Fill Type A2 as directed by Architect.
- C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

3.03 FILLING

- A. Fill to contours and elevations indicated using unfrozen materials.
- B. Fill up to subgrade elevations unless otherwise indicated.
- C. Employ a placement method that does not disturb or damage other work.
- D. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- E. Maintain optimum moisture content of fill materials to attain required compaction density.
- F. Granular Fill: Place and compact materials in equal continuous layers not exceeding 6 inches compacted depth.
- G. Soil Fill: Place and compact material in equal continuous layers not exceeding 8 inches compacted depth.
- H. Slope grade away from building minimum 2 inches in 10 feet, unless noted otherwise. Make gradual grade changes. Blend slope into level areas.
- I. Correct areas that are over-excavated.
 - 1. Load-bearing foundation surfaces: Fill with concrete.
 - 2. Other areas: Use general fill, flush to required elevation, compacted to minimum 95 percent of maximum dry density.
- J. Compaction Density Unless Otherwise Specified or Indicated:
 - 1. Under paving, footings, slabs-on-grade, footings, footings, similar construction, and footings: 95 percent of maximum dry density.
 - 2. At other locations: 90 percent of maximum dry density.
- K. Reshape and re-compact fills subjected to vehicular traffic.
- L. Maintain temporary means and methods, as required, to remove all water while fill is being placed as required, or until directed by the Architect. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack of dewatering or surface water control.

3.04 FILL AT SPECIFIC LOCATIONS

- A. Use general fill unless otherwise specified or indicated.
- B. At segmental block retaining walls::
 - 1. Use Fill Type A1 and S1.
 - 2. Compact each lift to 95 percent of maximum dry density on both sides of foundation walls and footings.
 - 3. Do not backfill against unsupported segmental block retaining walls.

4. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.
- C. Over Subdrainage Piping at segmental block retaining walls:
 1. Drainage fill and geotextile fabric: Section 334100 - Subdrainage.
 2. Cover drainage fill with Fill Type A3.
- D. Inside Planter Boxes:
 1. Use Fill Type A3, 4 inches deep.
 2. Cover with Geotextile Drainage Fabric.
 3. Cover with Fill Type A7, 2 inches deep.
 4. Finish with topsoil, to within 2 inches of planter rim, lightly tamped.
- E. At Lawn Areas:
 1. Use Fill Type S1.
 2. See Section 312200 - Grading for topsoil placement.
- F. At Planting Areas Other Than Lawns and Planter Boxes:
 1. Use Fill Type S1.
 2. See Section 312200 - Grading for topsoil placement.
- G. Under Pavers Set on Sand Leveling Bed:
 1. Use Fill Type S1.
 2. See Section 321123 - Aggregate Base Courses for aggregate base course placed over fill.
 3. See unit pavers section for leveling bed placement.
- H. Under Monolithic Paving and Monolithic Paver Setting Beds:
 1. Compact subsoil to 95 percent of its maximum dry density before placing fill.
 2. Use Fill Type S1.
 3. See Section 321123 - Aggregate Base Courses for aggregate base course placed over fill.

3.05 TOLERANCES

- A. Top Surface of General Filling: Plus or minus 1 inch from required elevations.
- B. Top Surface of Filling Under Paved Areas: Plus or minus 1/2 inch from required elevations.

3.06 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for general requirements for field inspection and testing.
- B. Perform compaction density testing on compacted fill in accordance with ASTM D1556, ASTM D2167, or ASTM D6938.
- C. Results will be evaluated in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D698 ("standard Proctor").
- D. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- E. Frequency of Tests:
 1. Unpaved areas: 1 test for each lift for each 25,000 s.f. of area.
 2. Paved areas: 1 test for each lift for each 5,000 s.f. of area.
 3. Inside building areas: 1 test for each lift for each 2,500 s.f. of area.
 4. Utility trenches inside building areas: 1 test for each lift for each 100 feet of trench length.
 5. Strip footings: 1 test for each lift for each 50 feet of trench length.
 6. Spread footings: 1 test for each lift for each 100 s.f. of area.
- F. Proof roll compacted fill at surfaces that will be under slabs-on-grade and paving.

3.07 CLEANING

- A. See Section 017419 - Construction Waste Management and Disposal, for additional requirements.

- B. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- C. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

END OF SECTION

**SECTION 321413
PRECAST CONCRETE UNIT PAVING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Interlocking concrete paver units.
- B. Non-interlocking concrete paver units.
- C. Open grid concrete paver units.
- D. Sand setting bed.
- E. Sand joint filler.
- F. Aggregate fill.
- G. Edge restraints.

1.02 RELATED REQUIREMENTS

- A. Section 312200 - Grading: Preparation of subsoil for pavers.
- B. Section 312323 - Fill: Compacted fill for pavers.

1.03 REFERENCE STANDARDS

- A. ASTM C33/C33M - Standard Specification for Concrete Aggregates.
- B. ASTM C936/C936M - Standard Specification for Solid Concrete Interlocking Paving Units.
- C. ASTM C1319 - Standard Specification for Concrete Grid Paving Units.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide characteristics of paver unit, color chart, detectable warning pavers, dimensions, and special shapes.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Interlocking Concrete Pavers:
 - 1. Capitol Ornamental Concrete Specialties, Inc; as described in each Work Order: www.capitolconcreteproducts.com/#sle.
 - 2. Hanover Architectural Products, Inc; as described in each Work Order: www.hanoverpavers.com/#sle.
 - 3. Oldcastle; as described in each Work Order: www.oldcastle.com/#sle.
 - 4. Midwest Block & Brick; Product as described in each Work Order: www.midwestblock.com.
 - 5. Substitutions: See Section 016000 - Product Requirements.
- B. Open Grid Concrete Pavers:
 - 1. Belgard Turfstone: ; Product as described in each Work Order www.belgard.biz/dealer.htm.
 - 2. Interlock Paving Systems, Inc; Product as described in each Work Order : www.interlockonline.com/#sle.
 - 3. Midwest Block & Brick; Product as described in each Work Order: www.midwestblock.com.
 - 4. Substitutions: See Section 016000 - Product Requirements.

2.02 MATERIALS

- A. Interlocking Concrete Pavers: Hydraulically pressed concrete, configured for interlocking with adjacent units and complying with ASTM C936/C936M.
 - 1. Compressive Strength: 8000 pounds per square inch average, with minimum of 7200 pounds per square inch.

2. Absorption: 5 percent average, with maximum of 7 percent.
 3. Size: As indicated on drawings.
 4. Thickness: 3-1/8 inches.
 5. Type: Rectangular.
 6. Color: Selected from manufacturer's full range.
- B. Open Grid Pavers: Precast concrete units complying with ASTM C1319.
1. Compressive Strength: 5000 pounds per square inch average, with minimum of 4500 pounds per square inch.
 2. Absorption: Maximum of 10 pounds per cubic foot averaged over three units.
 3. Net Open Area: Minimum 50 percent.
 4. Size: As indicated on drawings.
 5. Thickness: 3-1/8 inches.
 6. Color: Selected from manufacturer's full range.
- C. Sand for Setting Bed: Clean washed natural sand or crushed stone complying with gradation requirements of ASTM C33/C33M for fine aggregates.
- D. Sand for Joints: Fine washed sand with 100 percent passing No. 16 sieve and not more than 10 percent passing No. 200 sieve.
- E. Aggregate Fill: Open-graded aggregate for filling voids and joints in open grid paver units, complying with requirements of ASTM C33/C33M for No. 8 crushed stone.
- F. Edging: Concrete curb, as detailed.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate is level or to correct gradient, smooth, capable of supporting pavers and imposed loads, and ready to receive work of this Section.
- B. Verify gradients and elevations of substrate are correct.

3.02 INSTALLATION OF SOLID PAVER UNITS

- A. Spread sand bedding evenly over prepared substrate surface to a maximum thickness of 1-1/2 inch.
- B. Dampen and roller compact sand to level and even surface.
- C. Screed and scarify top 1 inch to 1 1/2 inch of sand.
- D. Place paver units in running bond pattern, from straight reference edge.
- E. Cut paver units at edges with masonry saw.
- F. Place special shaped units at edge and interruptions. Maintain tight joints.
- G. Sprinkle sand over surface and sweep into joints. Moisten joints and recover with additional sand until firm joints are achieved. Remove excess sand.
- H. Tamp and level paver units with mechanical vibrator until units are firmly bedded, level, and to correct elevation and gradients. Do not tamp unrestrained edges.

3.03 INSTALLATION OF OPEN GRID PAVER UNITS

- A. Spread sand evenly over prepared substrate course and screed to a uniform thickness of 1-1/2 inch.
- B. Place paver units in pattern indicated on drawings.
- C. Maintain uniform joints between paver units not more than 1/8 inch wide.
- D. Cut paver units at edges with masonry saw.
- E. Compact and seat paver units into screeded setting bed using low amplitude plate compactor capable of at least 5,000 lb centrifugal compaction force.

- F. Vibrate and compact pavers again while sweeping aggregate fill into joints and openings in pavers, stopping when fill material is within 1/2 inch from top surface of units. Do not compact within 3 ft of unrestrained paver edges.
- G. Completely fill voids in pavers with aggregate fill. Remove excess material.

END OF SECTION

**SECTION 321416
BRICK UNIT PAVING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Brick Pavers.
- B. Sand Materials.
- C. Accessories.
- D. Clay brick permeable pavers.
- E. Sand setting bed.
- F. Sand joints.

1.02 RELATED REQUIREMENTS

- A. Section 312200 - Grading: Compacted subbase preparation.
- B. Section 312323 - Fill: Compacted subbase preparation.

1.03 REFERENCE STANDARDS

- A. ASTM C33/C33M - Standard Specification for Concrete Aggregates.
- B. ASTM C902 - Standard Specification for Pedestrian and Light Traffic Paving Brick.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittals procedures.
- B. Product Data: Provide data on characteristics of paver unit, special shapes, dimensions, setting and grouting materials.
- C. Samples: Submit two sample paver units illustrating color, surface finish, and texture.

1.05 QUALITY ASSURANCE

- A. Paver Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with three years documented experience.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Brick Pavers:
 - 1. Building Products Corp.; Product as described in each Work Order: www.buildingproductscorp.com.
 - 2. Endicott Clay Products Co; Product as described in each Work Order: www.endicott.com.
 - 3. Glen-Gery Corp; Product as described in each Work Order: www.glengerybrick.com.
- B. Permeable Brick Pavers:
 - 1. Whitacre Greer Co.; Product Permeable: www.wgpaver.com.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.

2.02 BRICK PAVERS

- A. Pavers for Pedestrian Traffic: Extruded fire clay.
 - 1. Grade: ASTM C902 Weather Class SX Traffic Type I, with dimensional tolerances complying with Application PS.
 - 2. Face Size: 4 by 8 inches.
 - 3. Thickness: 2-5/8 inches minimum.
 - 4. Exposed Surface Texture: Wirecut.
 - 5. Edges: Square.
 - 6. Color: As selected by Architect from manufacturer's standard colors.

2.03 SAND MATERIALS

- A. Sand for Base and Joint Filler: ASTM C33/C33M, clean, washed river or bank sand containing maximum of 50 percent particle size of No. 50 sieve.

2.04 ACCESSORIES

- A. Cleaning Solution: Type recommended by paver manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify substrate is ready to support pavers and imposed loads.
- B. Verify gradients and elevations of substrate are correct.

3.02 INSTALLATION - SAND SETTING BED

- A. Spread sand evenly over prepared substrate surface to a nominal thickness of 1-1/2 inches.
- B. Dampen and roller compact sand to level surface.
- C. Screed and scarify top 1/2 inch of sand.
- D. Place paver units in running bond pattern to match existing, from straight reference line.
- E. Place half units or special shaped units at edges and interruptions. Maintain evenly spaced joints. Machine saw partial units.
- F. Sprinkle sand over surface and sweep into joints. Moisten joints and recover with additional sand until firm joints are achieved. Remove excess sand.
- G. Tamp and level paver units with mechanical plate vibrator until units are firmly bedded, level, and to correct elevation and slope gradient.

3.03 CLEANING

- A. Do not clean pavers until pavers and mortar are dry.
- B. Clean soiled surfaces using cleaning solution. Do not harm pavers, joint materials, or adjacent surfaces.
- C. Use non-metallic tools in cleaning operations.
- D. Rinse surfaces with clean water.
- E. Broom clean paving surfaces. Dispose of excess sand.

3.04 PROTECTION

- A. Do not permit traffic over unprotected paver surface.
- B. Protect paver surface with sheets of 3/4 inch thick plywood in work areas or vehicle and equipment traffic areas.
- C. Do not permit traffic for 48 hours after pavement placement.

END OF SECTION

**SECTION 323223
SEGMENTAL RETAINING WALLS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Subdrainage pipe behind retaining wall.
- B. Shop drawings.
- C. Retaining wall units.
- D. Drainage filter.

1.02 PRICE AND PAYMENT PROCEDURES

- A. Excavation of unsuitable soil and replacement with acceptable fill will be paid for at unit prices specified in Section 312316 - Excavation.

1.03 RELATED REQUIREMENTS

- A. Section 311000 - Site Clearing: Removal of unwanted trees, bushes, and debris.
- B. Section 312200 - Grading: Rough and finish grading.
- C. Section 312316 - Excavation.
- D. Section 312323 - Fill.

1.04 REFERENCE STANDARDS

- A. AASHTO M 288 - Standard Specification for Geosynthetics for Highway Applications.
- B. AASHTO NTPEP - National Transportation Product Evaluation Program.
- C. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- D. ASTM C1372 - Standard Specification for Dry-Cast Segmental Retaining Wall Units.
- E. ASTM D448 - Standard Classification for Sizes of Aggregate for Road and Bridge Construction.
- F. ASTM D4595 - Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method.
- G. ASTM D5262 - Standard Test Method for Determining the Unconfined Tension Creep and Creep Rupture Behavior of Planar Geosynthetics Used for Reinforcement Purposes.
- H. ASTM D5818 - Standard Practice for Exposure and Retrieval of Samples to Evaluate Installation Damage of Geosynthetics.
- I. ASTM D6638 - Standard Test Method for Determining Connection Strength Between Geosynthetic Reinforcement and Segmental Concrete Units (Modular Concrete Blocks).
- J. ASTM D6916 - Standard Test Method for Determining the Shear Strength Between Segmental Concrete Units (Modular Concrete Blocks).
- K. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
- L. ASTM D1241 - Standard Specification for Materials for Soil-Aggregate Subbase, Base, and Surface Courses.
- M. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
- N. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).
- O. ASTM D3034 - Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
- P. ASTM D4318 - Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

- Q. ASTM D4491/D4491M - Standard Test Methods for Water Permeability of Geotextiles by Permittivity.
- R. ASTM D4595 - Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method.
- S. ASTM D4632/D4632M - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.
- T. ASTM D4751 - Standard Test Methods for Determining Apparent Opening Size of a Geotextile.
- U. ASTM D5262 - Standard Test Method for Determining the Unconfined Tension Creep and Creep Rupture Behavior of Planar Geosynthetics Used for Reinforcement Purposes.
- V. ASTM D5321/D5321M - Standard Test Method for Determining the Shear Strength of Soil-Geosynthetic and Geosynthetic-Geosynthetic Interfaces by Direct Shear.
- W. ASTM D5818 - Standard Practice for Exposure and Retrieval of Samples to Evaluate Installation Damage of Geosynthetics.
- X. ASTM D6638 - Standard Test Method for Determining Connection Strength Between Geosynthetic Reinforcement and Segmental Concrete Units (Modular Concrete Blocks).
- Y. ASTM D6706 - Standard Test Method for Measuring Geosynthetic Pullout Resistance in Soil.
- Z. ASTM D7928 - Standard Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis.
- AA. ASTM F667/F667M - Standard Specification for 3 through 24 in. Corrugated Polyethylene Pipe and Fittings.
- BB. NCMA TR-127 - Design Manual for Segmental Retaining Walls 3rd Edition.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Segmental Retaining Wall Units:
 - 1. Manufacturer's product data.
- C. Retaining Wall Design Engineer Qualifications and Statement of Experience.
- D. Shop Drawings: Engineering drawings for installation, including elevations, large-scale details of elevations, typical sections, details, and connections, soil reinforcement, and drainage provisions.
 - 1. Include marked up contract drawings showing exact dimensions for blocks, required coping, and other minor revisions.
 - 2. Design Data: Submit detailed design calculations showing compliance with specified design criteria and material evaluations performed in accordance with specified design standard, signed and sealed by Design Engineer.
 - 3. Submit no less than 2 weeks prior to start of work.
 - 4. Obtain approval of Architect prior to start of work.
- E. Permit: Obtain permit from authorities having jurisdiction prior to start of work and submit copy of permit.

1.06 QUALITY ASSURANCE

- A. Retaining Wall Design Engineer Qualifications: Provide design by or under direct supervision of Professional Engineer experienced in the work of this section and licensed in the State in which the Project is located and:
 - 1. Having minimum of five years documented experience in design of reinforced soil structures.
- B. Manufacturer Qualifications -- Concrete Units: Firm specializing in manufacturing products specified in this section and:
 - 1. With not less than 3 years experience.

- C. Installer Qualifications: Firm specializing in design and installation of segmental retaining walls and:
 - 1. With not less than 3 years documented experience.
 - 2. Approved by retaining wall system manufacturer.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Store products above ground on wood pallets or blocking, in manufacturer's unopened packaging, until ready for installation.
- B. Prevent excessive soil and mud from coming in contact with face of concrete units.
- C. Polymeric Materials: Store at temperatures above minus 20 degrees F; rolled materials may be laid flat or stood on end.
- D. Protect material from damage, do not use damaged material.
- E. Remove damaged material from the site.
- F. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Segmental Retaining Walls:
 - 1. Anchor Wall Systems, Inc.; Product _____: www.anchorwall.com.
 - 2. Keystone Retaining Wall Systems, Inc.; Product _____: www.keystonewalls.com.
 - 3. Versa-Lok Retaining Wall Systems; Product _____: www.versa-lok.com.
 - 4. _____.
 - 5. Substitutions: See Section 016000 - Product Requirements.
 - 6. Reinforcement shall have AASHTO NTPEP approval.

2.02 RETAINING WALLS

- A. Contractor is responsible for design of the retaining walls.
 - 1. Design to required horizontal and vertical alignment as indicated on drawings.
- B. Design Standard: Design retaining walls to be capable of withstanding the effects of gravity loads due to soil pressures resulting from grades indicated, determined in accordance with:
 - 1. NCMA TR-127.
 - 2. Include effects of sloped backfill as indicated on drawings.
 - 3. Include effects of superimposed loads (surcharge) as indicated on drawings.
 - 4. In addition, comply with applicable local, state, and federal codes and regulations.
 - 5. This design method considers potential failure modes categorized by external, internal, local, compound, and global stability.
 - 6. Architect has considered global stability and has indicated minimum design requirements in Contract Documents.
 - 7. Seismic Stability: Perform analysis in accordance with ASCE 7.
 - 8. Factor of Safety:
 - a. External Stability:
 - 1) Base Sliding = 1.5
 - 2) Overturning = 1.5
 - 3) Bearing Capacity = 2.0
 - 4) Global Stability = 1.3
 - b. Internal Stability:
 - 1) Shear Capacity = 1.5
 - 9. Surcharges:
 - a. Dead Load:
 - 1) No Traffic or Pedestrian Traffic Above Wall = 0 lb/sf minimum

- 2) Light Vehicular Traffic Above Wall (automobiles and lightweight trucks) = 100 lb/sf minimum
 - 3) Heavy Vehicular Traffic Above Wall (buses and tractor/trailer trucks) = 250 lb/sf minimum
10. Maximum Allowable Bearing Pressure: 1.5 ksf unless soils report indicates allowable bearing pressure is greater.
 11. Provide engineering services as required for analysis for all modes of stability.
 12. Use of design software for calculations is permitted.
 13. Submit complete shop drawings showing all features of the design.
- C. Setback: 3/4 inch back from face per course.
- D. Mass (Weight) Per Wall Face Area: 35 pounds per square foot, minimum, including filled voids.
- E. Shear Resistance: Design the wall not to exceed the capacity of materials and soils to resist shear:
1. Shear Resistance Between Units: Determine in accordance with ASTM D6916.
 2. Connection Between Units and Soil Reinforcement: Determine in accordance with ASTM D6638. Strength shall exceed the maximum tensile force with a Factor of Safety of 1.5.
 3. Coefficient for Direct Shear of Reinforcement on Soil: Determine in accordance with ASTM D5321/D5321M using soil similar in gradation and texture to that to be used for fill in the reinforced zone.
- F. Soil Reinforcement:
1. Test reinforcement to be used in accordance with ASTM D6706 using soil taken from project site.
 2. Do not use more than one type of reinforcement attached to units within the same wall; do not use products made by different manufacturers in the same wall; minimize the number of different reinforcement and filter products to avoid confusion in placement.
 3. Walls Less Than 12 feet High: Use only one type of reinforcement of one grade and strength.
 4. NCMA Method: Determine in accordance with NCMA TR-127:
 5. Length Back from Wall: Not less than dimensions shown on drawings.
 6. Long Term Design Strength of Reinforcement: $LTDS = T_{ult} / (RF_d \times RF_i \times RF_{cr})$, where:
 - a. T_{ult} = Ultimate (tensile) strength per ASTM D4595.
 - b. RF_d = Reduction Factor for chemical and biological durability; minimum 2.0 if durability testing has not been conducted, otherwise 1.1 for High-density polyethylene (HDPE), and 1.1 for polyethylene terephthalate (PET).
 - c. RF_i = Reduction Factor for Installation Damage; minimum 1.1 and 3.0 if testing per ASTM D5818 has not been conducted.
 - d. RF_{cr} = Reduction Factor for Creep; consistent with test procedure used for determining the ultimate strength per ASTM D5262.
 - e. The product $RF_d \times RF_i \times RF_{cr}$ shall be greater than 2.0.
- G. Drainage: Design to prevent water accumulation in retained soil; use drainage fill and drainage pipe as specified in Section 334100; provide outlets at 50 foot intervals along length of wall, minimum.
- H. Minimum Factor of Safety: Design with the following stability requirements:
1. Sliding = 1.5.
 2. Pullout = 1.5.
 3. Tensile Overstress = 1.5.
 4. Overturning = 2.0.
 5. Bearing Capacity = 2.0.

2.03 MATERIALS

- A. Retaining Wall Units: Machine-formed concrete blocks of shapes and sizes suitable for the retaining wall configuration required and complying with ASTM C1372 and the following:

1. Face Color: Natural cement gray; all units from same production run.
 2. Texture: Split face, on exposed surfaces.
 3. Face Shape: Straight (flat).
 4. Curved Walls: Provide unit shapes that accommodate the required curves without cutting and with gaps between faces of adjacent units of not more than 1/8 inch and a minimum radius of 3 1/2 feet.
 5. Acute Corners: Miter-cut corner units are acceptable; exposed faces finished to match.
 6. Batter Dimensional Control: Provide integral positive control to maintain consistent batter dimension.
 7. Shear Resistance Mechanism: Manufacturer's standard.
 8. Moisture Absorption: 8 percent, maximum.
 9. Dimensional Tolerances: Plus/minus 1/16 inch from specified dimension.
 10. Appearance: No visible chips, cracks, or other imperfections when viewed from 10 feet under diffuse lighting.
- B. Drainage Filter: Geosynthetic textile.
1. Apparent Opening Size: 70 to 100 U.S. Sieve size, when tested in accordance with ASTM D4751.
 2. Permittivity: 0.5 per second, minimum, when tested in accordance with ASTM D4491/D4491M.
 3. Durability: Comply with minimum requirements of AASHTO M 288 Class 1; minimum mass of 8 ounces per square yard.
- C. Aggregate for Leveling Pad: Compacted sand, gravel, or crushed rock complying with the following:
1. Type A1 as specified in Section 312323 - Fill.
 2. Do not use pea gravel.
- D. Drainage Fill: Clean, freely draining aggregate placed within, between, or immediately behind segmental units; do not use pea gravel; use the following:
1. Type A3 as specified in Section 312323 - Fill.
- E. Reinforced Backfill: Compacted soil placed behind drainage fill within reinforced soil mass; do not use heavy clay or organic soils; comply with the following:
1. As specified in Section 312323 - Fill.
- F. Drainage Pipe: Perforated PVC, complying with ASTM D3034; or corrugated HDPE complying with ASTM F667/F667M; with geotextile filter wrap; 4 inch diameter.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify location of existing structures and utilities prior to excavation.
- B. Protect adjacent structures from the effects of excavation.
- C. Verify that layout dimensions are correct and substrate is in proper condition for installation.
- D. Notify Architect of unsatisfactory conditions.
- E. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Sitework:
- B. Excavation:
 1. Excavate to lines and grades indicated on drawings.
 2. Do not disturb embankment or foundation beyond lines. Minimize over-excavation; fill over-excavated areas with compacted reinforced backfill or leveling pad material at Contractor's expense.
 3. Excavation support, if required, shall be the responsibility of the Contractor.

4. After excavation, and prior to placement of leveling materials, Geotechnical Engineer will examine bearing soil surface to verify strength meets or exceeds design requirements and assumptions.
 5. Replace unsuitable bearing soil as directed by Geotechnical Engineer in accordance with requirements of Section 312316 - Excavation.
 6. Embankment excavations shall be bench cut as directed by the project Geotechnical Engineer.
- C. Leveling Pad:
1. Depth: As indicated on drawings.
 2. Width: 6 inches minimum extension beyond front and back faces of units.
 3. Location: Top of pad at 1 inch below grade for each 8 inches that wall extends above grade.
 4. Compact aggregate to lines and grades on drawings, in lifts 6 inches thick, maximum.
 5. Compact aggregate to a minimum of 95 percent standard Proctor density, when determined in accordance with ASTM D698 at moisture content within 2 percent of optimum.
 6. Use only hand-operated compaction equipment within 36 inches of back of wall.
- D. Verify level grade before proceeding.
- E. Install drainage collection pipe with a continuous fall in the direction of flow; cap open ends as necessary to prevent soil and debris from entering.

3.03 INSTALLATION

- A. Install in accordance with drawings, manufacturer instructions, and applicable codes and regulations.
- B. Segmental Retaining Wall Units:
1. Place first course of units on leveling pad; check alignment and level. Check for full contact with base and for stability.
 2. Place units side by side for full length of wall, aligning back face of straight walls using string line or offset from base line and back face of curved walls using flexible pipe or other method recommended by manufacturer.
 3. Do not leave gaps between units.
 4. Lay out corners and curves in accordance with manufacturer's instructions. Do not leave gaps to produce wall batter or curvature.
 5. Cut blocks with saw; do not split units.
 6. Sweep excess material from tops of units before laying succeeding courses.
 7. Place a maximum of 2 succeeding courses above level backfill. Check for proper alignment and batter.
 8. Where top of wall changes elevation, step units to match grade or turn top course into embankment.
 9. Where bottom of wall changes elevation, step base leveling pad and extend lowest course a minimum of two units into slope.
 10. Install shear connectors per manufacturer recommendations.
- C. Soil Reinforcement: Install each layer on fully compacted fill.
1. Orient soil reinforcement material with highest strength axis perpendicular to wall alignment.
 2. Attach to top of wall units and extend horizontally, full length, over compacted backfill slightly sloping downward away from wall.
 3. Install in one piece lengths with 100 percent coverage in each layer at each level. Do not splice or leave gaps between panels or ends of pieces.
 4. Pull taut and remove slack prior to backfill placement.
- D. Drainage Fill: Place drainage fill in, between, and behind units.

1. Compact to lines and grades on drawings, in lifts 6 inches thick, maximum; decrease lift thickness where necessary to achieve required density.
 2. Extend drainage fill 12 inches beyond back face of units.
 3. Base of drainage fill elevation shall not exceed two courses or 16 inches from base of wall units.
- E. Drainage Pipe:
1. Install and join pipe and pipe fittings in accordance with pipe manufacturer's instructions.
 2. Place drainage pipe on drainage fill at elevations detailed.
 3. Lay pipe to slope gradients noted on Drawings; with maximum variation from true slope of 1/8 inch in 10 feet.
 4. Place pipe with perforations facing down.
 5. Install pipe couplings.
 6. Install filter aggregate at sides, over joint covers and top of pipe.
- F. Backfill: Place, spread, and compact backfill from behind drainage fill to undisturbed soil while minimizing the development of slack in the soil reinforcement.
1. Use only lightweight hand-operated compaction equipment within 3 feet from back wall face, or one half of wall height, whichever is greater.
 2. Place backfill in lifts of maximum 6 inches to 8 inches loose thickness where hand compaction is used and 8 inches to 10 inches where heavy equipment compaction is used.
 3. Compact backfill to 95 percent maximum density and upper 2 feet of backfill to 98 percent maximum density, standard Proctor, as determined in accordance with ASTM D698, or as recommended by Geotechnical Engineer.
 4. Moisture content of backfill prior to and during compaction to be within plus or minus 2 percentage points dry of optimum and uniform throughout each layer.
 5. Do not operate tracked construction equipment directly upon soil reinforcement. Maintain a minimum fill thickness of 6 inches for operation of tracked vehicles over soil reinforcement. Minimize turning of tracked vehicles while over soil reinforcement.
 6. Operate wheeled equipment at speeds less than 10 miles per hour over soil reinforcement.
 7. Prevent contamination of the filter fabric, unit fill, blanket drains, chimney drains, and/or drainage composite from poor drainage materials such as fine grained silt and clay.
 8. At end of each day, slope top of backfill away from wall to direct runoff away from wall face. Prevent runoff from adjacent areas from entering wall site.
 9. At completion, if other work adjacent to wall is not to be done immediately (paving, landscaping, etc), grade top of backfill and provide temporary drainage to prevent water runoff toward the wall.
- G. Cap Units: Install with masonry adhesive.
1. Clear cap units and top course of segmental retaining wall units of debris and standing water before applying adhesive.
 2. Apply masonry adhesive to top surface of top unit and place cap into position over projecting pins. Protect wall face from masonry adhesive.
- H. Site Drainage:
1. At end of each day:
 - a. Grade backfill a minimum of 2 percent away from wall to prevent runoff from adjacent areas from entering wall site and to prevent ponding at the wall.
 - b. Construct a berm at the crest of the wall to prevent surface water from overtopping.
 2. At completion, if other work adjacent to wall is not to be done immediately (paving, landscaping, etc), grade top of backfill and provide temporary drainage to prevent water runoff toward the wall.
 3. Surface water control and groundwater seepage shall be the responsibility of the project Architect.

3.04 TOLERANCES

- A. Top of Wall:
 - 1. Plan Location: Maximum of plus/minus 1 inch from plan location.
 - 2. Elevation: Maximum of plus/minus 1 inch from elevations shown on drawings.
- B. Face of Wall Flatness: Measured as deviation from a straight edge.
 - 1. In the Vertical Dimension: Plus/minus 1-1/4 inch per 10 foot section.
 - 2. In the Horizontal Dimension of Straight Walls: Plus/minus 1-1/2 inch per 10 foot section.
- C. Overall Wall Batter: Within 2 degrees of design, measured from the vertical.
- D. Gap Between Adjacent Units: 1/8 inch, maximum.

3.05 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements, for additional requirements.
- B. Provide manufacturer's field representative to observe and inspect concrete units.
- C. Observe and inspect:
 - 1. Concrete units: For correct type, for quality installation with courses that are level and follow the designed batter ratio.
 - 2. Soil backfill: For correct type, for specified compaction with level grading prior to reinforcement installation.
 - 3. Soil reinforcement: For correct type, for solid connection to concrete units, and for smooth and taut installation.
 - 4. Field location in plan and elevation.
- D. Soil Tests: For every new soil type and/or for every 2,000 cubic yard per running foot perform Atterberg Limit, Sieve Analysis, and Proctor Compaction tests. Perform additional testing per project Architect.
- E. Owner will engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction. Contractor will secure necessary construction control testing during construction.
- F. Frequency of Compaction Testing: 1 for each lift for each 100 ft of wall length.
- G. Notify the Contractor of any deficiencies in the retaining wall construction and provide the Contractor a reasonable opportunity to correct the deficiency.
 - 1. Notify the Contractor, Owner and Retaining Wall Design Engineer of any construction deficiencies that have not been corrected timely.
- H. Contractor shall correct work found deficient and not in accordance with drawings and specifications.

3.06 CLEANING

- A. Clean wall face to remove debris and stains.
- B. Leave adjacent paved areas broom clean.

3.07 PROTECTION

- A. Prevent damage to wall and earthwork by subsequent construction and uncontrolled runoff until substantial completion; repair damage due to failure to protect wall or earthwork.
- B. Do not operate heavy paving or grading equipment within 36 inches from the back of the wall face.
- C. Do not operate equipment with wheel loads in excess of 150 pounds per square foot live load within 10 feet from the wall face.
- D. Do not place temporary soil or fill stockpiles adjacent to wall.
- E. Replace damaged units prior to Date of Substantial Completion.

END OF SECTION

