

August 2021

Project Manual for

Platte County Middle School

N Platte Purchase Drive & 95th
Kansas City, MO 64154

Prepared For:

Platte County R-3 School District
998 Platte Falls Road
Platte City, MO 64079

Prepared For:

Hollis + Miller Architects
1828 Walnut Street, Suite 922
Kansas City, MO 64108

Project No. 20021

Contents:

Volume 1: Introductory Information, Bidding and Contracting Requirements,
Division 1 Requirements, Divisions 2 through 33 Specifications.



SECTION 000101 - PROJECT TEAM DIRECTORY

PART 1 - GENERAL

1.1 CONSTRUCTION MANAGER INFORMATION

- A. McCown Gordon Construction has been selected as the Construction Manager for this project, and as such, will act as the Owner's representative.
- B. All communication, both written and oral, must be directed through the Construction Manager.

1.2 PROJECT TEAM INFORMATION

A. PROJECT:

- 1. Name: 20021 - Platte County Middle School
- 2. Location: N Platte Purchase Drive & NW 95th. Kansas City, Missouri 64154
- 3. Project No: 20021

B. OWNER:

- 1. Name: Platte County School District
- 2. Address: 998 Platte Falls Rd, Platte City, MO. 64079
- 3. Contact: Jay Harris
- 4. Phone: 816.858.5420

C. CONSTRUCTION MANAGER:

- 1. Name: McCown Gordon Construction
- 2. Address: 850 Main Street, Kansas City, MO 64105
- 3. Contact: Luke Deets
- 4. Phone: 816.960.1182

D. ARCHITECT:

- 1. Name: Hollis + Miller Architects, Inc.
- 2. Address: 1828 Walnut Street, Suite 922, Kansas City, MO 64108.
- 3. Contact: Melissa Brown / Trent Gareis
- 4. Phone: 816.442.7700 / Fax: 816.599.2545

E. CIVIL ENGINEER:

- 1. Name: Olsson, Inc.
- 2. Address: 7301 W. 133rd Street, Suite 200, Overland Park, KS 66213
- 3. Contact: David Eickman
- 4. Phone: 818.361.1888

F. STRUCTURAL ENGINEER:

- 1. Name: Hollis + Miller Architects, Inc.

2. Address: 1828 Walnut Street, Suite 922, Kansas City, MO 64108.
3. Contact: David Krell
4. Phone: 816.442.7700 / Fax: 816.599.2545

G. MEP ENGINEER:

1. Name: Henderson Engineering Inc.
2. Address: 8345 Lenexa Drive, Suite 300, Lenexa, Kansas 66214.
3. Contact: Chris Greer
4. Phone: 913.742.5000.

H. GEOTECHNICAL ENGINEERS:

1. Name: Olsson, Inc.
2. Address: 7301 W. 133rd Street, Suite 200, Overland Park, KS 66213
3. Contact: David Eickman
4. Phone: 818.361.1888

I. FOOD SERVICE CONSULTANT:

1. Name: Santee/Becker Associates, LLC.
2. Address: 6700 Squibb Road, Suite 101, Mission, Kansas 66202-3251
3. Contact: John Kennedy.
4. Phone: 913.362.1800/ Fax: 913.362.2609.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 000101

SECTION 000105 - CERTIFICATIONS PAGE

ARCHITECT

I HEREBY, PURSUANT TO RSMO 327.411, STATE THAT THE SPECIFICATIONS INTENDED TO BE AUTHENTICATED BY MY SEAL ARE LIMITED TO SPECIFICATIONS LISTED BELOW:

DIVISION 1 SECTIONS:	011000, 012300, 012500, 012600, 012900, 013100, 013200, 013233, 013300, 014000, 014200, 014529, 015000, 016000, 017300, 017419, 017700, 017823, 017839, 017900
DIVISION 2 SECTIONS:	024119
DIVISION 3 SECTIONS:	
DIVISION 4 SECTIONS:	
DIVISION 5 SECTIONS	
DIVISION 6 SECTIONS	
DIVISION 7 SECTIONS	
DIVISION 8 SECTIONS	
DIVISION 9 SECTIONS	
DIVISION 10 SECTIONS	
DIVISION 11 SECTIONS	
DIVISION 12 SECTIONS	
DIVISION 13 SECTIONS	
DIVISION 14 SECTIONS	
DIVISION 31 SECTIONS	
DIVISION 32 SECTIONS	
DIVISION 33 SECTIONS	

I HEREBY DISCLAIM ANY RESPONSIBILITY FOR ALL OTHER SPECIFICATIONS, DRAWINGS, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE ARCHITECTURAL OR ENGINEERING PROJECT OR SURVEY.

ARCHITECT

DATE



SECTION 000105 – CERTIFICATIONS PAGE

CIVIL ENGINEER

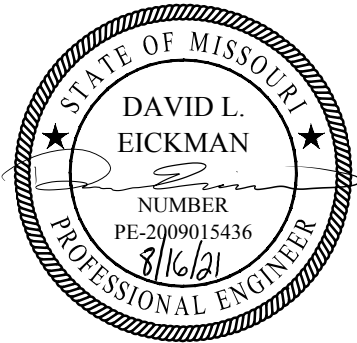
I HEREBY, PURSUANT TO RSMO 327.411, STATE THAT THE SPECIFICATIONS INTENDED TO BE AUTHENTICATED BY MY SEAL ARE LIMITED TO SPECIFICATIONS LISTED BELOW:

DIVISION 31 – 311000, 312000, 313200

DIVISION 32 – 321216, 321313, 321373, 325250

DIVISION 33 – 331100, 333100, 334100, 334600

I HEREBY DISCAIM ANY RESPONSIBILITY FOR ALL OTHER SPECIFICATIONS, DRAWINGS, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE ARCHITECTURAL OR ENGINEERING PROJECT OR SURVEY.



CIVIL ENGINEER

DATE

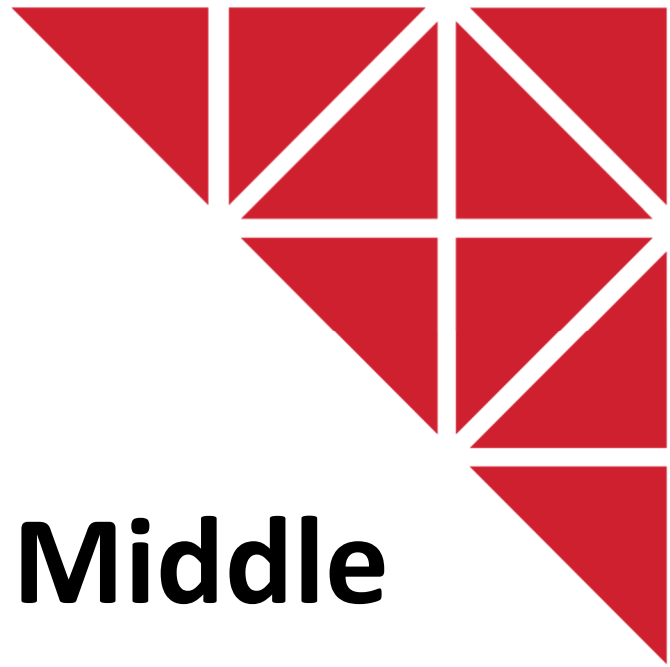
DOCUMENT 000110 – TABLE OF CONTENTS

Project Name: Platte County Middle School
Project No.: 20021
Site Address N Platte Purchase Drive & NW 95th St
City, State Zip Kansas City, MO 64154

	Site Latest Revision	Site Original Issue
INTRODUCTORY INFORMATION		
000001	Cover	8/16/2021
000101	Project Team Directory	8/16/2021
000105	Certifications and Seals	8/16/2021
000110	Table of Contents	8/16/2021
BIDDING REQUIREMENTS		
	(Refer to Construction Manager's Front End Manual for additional Bidding Requirements)	
003132	Geotechnical Data	8/16/2021
CONTRACTING REQUIREMENTS		
	(Refer to Construction Manager's Front End Manual for additional Contracting Requirements)	
006113	Performance and Payment Bond	8/16/2021
006273	Application and Certificate for Payment	8/16/2021
006275	Partial Lien Wavier	8/16/2021
006276	Bailment Receipt	8/16/2021
006277	Bill of Sale	8/16/2021
008400	Attachments	8/16/2021
DIVISION 1 – GENERAL REQUIREMENTS		
011000	Summary	8/16/2021
012300	Alternates	8/16/2021
012500	Substitution Procedures	8/16/2021
012600	Contract Modification Procedures	8/16/2021
012900	Payment Procedures	8/16/2021
013100	Project Management and Coordination	8/16/2021
013200	Construction Progress Documentation	8/16/2021
013233	Photographic Documentation	8/16/2021
013300	Submittal Procedures	8/16/2021
014000	Quality Requirements	8/16/2021
014200	References	8/16/2021
014529	Testing and Inspections	8/16/2021
015000	Temporary Facilities and Controls	8/16/2021
016000	Product Requirements	8/16/2021
017300	Execution	8/16/2021
017419	Construction Waste Management & Disposal	8/16/2021
017700	Closeout Procedures	8/16/2021
017823	Operation and Maintenance Data	8/16/2021
017839	Project Record Documents	8/16/2021
017900	Demonstration and Training	8/16/2021

	Site Latest Revision	Site Original Issue
DIVISION 2 – EXISTING CONDITIONS		
024119	Selective Demolition	8/16/2021
DIVISION 31 - EARTHWORK		
311000	Site Clearing - Refer to division II construction and materials specification APWA 2100 clearing and site preparation.	8/16/2021
312000	Earth Moving	8/16/2021
313200	Soil Stabilization - Refer to division II construction and materials specification APWA 2200 paving.	8/16/2021
DIVISION 32 - EXTERIOR IMPROVEMENTS		
321216	Asphalt Paving - Refer to division II construction and materials specification APWA 2200 paving.	8/16/2021
321313	Concrete Paving - Refer to division II construction and materials specification APWA 2200 paving.	8/16/2021
321373	Concrete Paving Joint Sealants	8/16/2021
325250	Cast In Place Concrete Curbing - Refer to division II construction and materials specification APWA 2200 paving.	8/16/2021
325251	Site Concrete Exhibit	8/16/2021
DIVISION 33 - UTILITIES		
331100	Water Utility Distribution Piping - Refer to KC water standards and specifications for water main extensions and relocation (May 2018) and KC water rules and regulations for water service lines (May 2018).	8/16/2021
333100	Sanitary Utility Sewerage Piping - Refer to division II construction and materials specification APWA 2500 sanitary sewers.	8/16/2021
334100	Storm Utility Drainage Piping - Refer to division II construction and materials specification APWA 2600 storm sewers.	8/16/2021
334600	Subdrainage	8/16/2021

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Platte County Middle School – Site Development Package

Kansas City, Mo

CM PROJECT MANUAL – PACKAGE 1 | August 17,
2021

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

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00 01 10	Table of Contents
00 01 15	List of Drawings
00 11 00	Invitation to Bid
00 20 00	Bidding Requirements
00 20 12	Form of Agreement Between Contractor and Subcontractor
	<i>Attachment No. 001 Example Work Order</i>
	<i>Attachment No. 002 Payment Application Instructions</i>
	<i>Attachment No. 003 Partial Lien Waiver</i>
	<i>Attachment No. 004 Materialmen List</i>
	<i>Attachment No. 005 Affidavit</i>
	<i>Attachment No. 006 Final Lien Waiver</i>
	<i>Attachment No. 007 Insurance Requirements</i>
	<i>Attachment No. 008 EEO Requirements</i>
	<i>Attachment No. 009 Safety Requirements</i>
00 20 12.1	Form of Agreement Between Owner and Contractor
00 21 00	General Provisions
00 24 00	Trade partner specific scopes of work
	01 00 00 Surveying
	03 00 00 Site Concrete
	03 10 00 Earthwork
	03 12 00 Asphalt
	03 30 00 Site Utilities
00 31 00	Construction Schedule, Sequencing and Logistics
00 41 00	Bid Form

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BID PACKAGE 00 11 00 – INVITATION TO BID

00 11 00 Invitation To Bid

- 1.1 McCownGordon Construction is requesting Subcontractor bid proposals for the Platte County Middle School Site Development Package. The project includes the Earthwork, Utilities and Paving for a new Middle School.
- 1.2 Scopes of work bidding with this package include: Surveying, Earthwork, Site Concrete, Site Utilities, and Asphalt
- 1.3 Bid Submittals
 - 1.3.1 Bids will be received until 2:00 pm on Tuesday, August 31, 2021
 - 1.3.2 Bids shall be submitted through Building connected website as noted below. Hard copy bids will be accepted at MccownGordon’s office. See address below.
 - 1.3.3 Bids shall be directed to Ashley Pavlu, Apavlu@mccowngordon.com
McCownGordon Construction
850 Main, Kansas City, MO 64105
816.960.1111
 - 1.3.4 All bids shall be held for a period of 60 days.
 - 1.3.5 Bid Bonds are required in the amount of 5%.
- 1.4 Vendor Prequalification
 - 1.4.1 Prior to being awarded a contract, all bidders are required to qualify with McCownGordon. McCownGordon utilizes a secure online system to administer the qualification review process. Bidders who are not prequalified should go to <https://mccowngordon.com/trade-partners/> and click the “Prequalify Now” link to begin the process. Any questions regarding the prequalification process should be directed to Sam Dwyer (sdwyer@mccowngordon.com).
 - 1.4.2 By submitting a bid, your company agrees that it will submit a recent financial statement, references and safety history prior to award of a contract
 - 1.4.3 Subcontractor will execute a copy of MGC’s current MSA.

00 11 17 Bid Document Access

- 1.5 Documents can be accessed through bid solicitation software, currently it is www.buildingconnected.com at the following: [McCownGordon Construction Public Plan Room](#), or Email Nate Frazier nfrazier@mccowngordon.com for an invitation and link to the project.
- 1.6 All questions shall be submitted via e-mail to the contact noted above.

00 11 18 Additional Project Information

- 1.7 A pre-bid meeting will be held virtually at 2:00 pm on Monday, 8/23/2021. Meeting can be accessed through link below.
<https://mccowngordon.zoom.us/j/98364729547?pwd=eUxVZ1gwcGgvOmcyYjdTQ2k4MDhTUT09>
- 1.8 Milestone Schedule Dates (per schedule included in bidding requirements)
 - 1.8.1 Bid Date 8/31/2021
 - 1.8.2 Construction Start 10/27/2021
 - 1.8.3 Construction Completion 5/31/2023
- 1.9 All questions shall be submitted via e-mail to the contact noted above.

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BID PACKAGE 00 11 00 – INVITATION TO BID

- 1.9.1 All questions shall be submitted no later than 12:00 pm on Tuesday, 8/24/2021.
- 1.10 Project Tax Status
 - 1.10.1 Project is NON-TAXABLE
- 1.11 Project Labor Requirements
 - 1.11.1 Project is subject to prevailing wage requirements
 - 1.11.2 Project requires union labor for the following trades: Carpentry
 - 1.11.3 This project requires Certified Payroll
 - 1.11.4 Work to occur during normal business hours
- 1.12 Special Insurance Requirements
 - 1.12.1 Insurance is to be included per the insurance requirements table in specification section 00 11 10
- 1.13 Liquidated Damages
 - 1.13.1 Project is subject to Liquidated Damages in accordance with the prime contract.
- 1.14 M/WBE Goals
 - 1.14.1 Project is not subject to any MBE or WBE participation goals

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BID PACKAGE 00 20 00 – BIDDING REQUIREMENTS

00 20 01 Definitions

- 1.1 Bidding Documents include the Bidding Requirements and the proposed Subcontract Documents. The Bidding Requirements consist of the Invitation to Bid, Instructions to Bidders, the Project Manual, and other sample Bidding and Subcontract forms. The proposed Subcontract Documents consist of the Agreement between the Owner and Contractor, General Conditions of the Contract for Construction (and any Supplementary or other Conditions), Form of Agreement between Contractor and Subcontractor, Material and Equipment Contract between Contractor and Supplier, Drawings, Specifications, and all Addenda issued prior to execution of the Subcontract.
- 1.2 Definition set forth in the Subcontract Documents, is applicable to the Bidding Documents.
- 1.3 The Subcontract is the Agreement between the Contractor and Subcontractor for the performance of work by a Subcontractor or the Material and Equipment Contract between the Contractor and Supplier for the supply of materials or equipment by a Supplier.
- 1.4 The Work is the work to be performed or materials and equipment to be supplied under the scope of work of a Subcontract.
- 1.5 Addenda are written or graphic instruments issued by the Architect prior to the execution of the Subcontract which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.
- 1.6 A Bid is a complete and properly signed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.
- 1.7 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or deleted for sums stated in Alternate Bids and Unit Prices.
- 1.8 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents and the Specifications, is accepted.
- 1.9 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment, or labor, as described in the Bidding Documents.
- 1.10 A Bidder is a person or entity who submits a Bid.
- 1.11 A Sub-Bidder is a person or entity who submits a Bid to a Bidder for materials or labor for a portion of the Work.

00 20 02 Bidder's Representations

- 1.1 Each Bidder by making his Bid represents that:
 - 1.1.1 The Bidder has read and understands the Bidding Documents and his Bid is made in accordance therewith.
 - 1.1.2 The Bidder has visited the site, has familiarized himself with the local conditions under which the work is to be performed, and has correlated his observation with the requirements of the proposed Subcontract Documents.
 - 1.1.3 The Bid is based upon the materials, systems, and equipment required by the Bidding Documents without exception.

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BID PACKAGE 00 20 00 – BIDDING REQUIREMENTS

- 1.1.4 The Bidder will not later request, and will not later expect to receive, additional payment for work related to conditions which can be determined by examination of the site and the Bidding Documents.
- 1.2 Bidders and Sub-Bidders shall promptly notify the Contractor of any ambiguity, inconsistency, or error which they may discover upon examination of the Bidding Documents or of the site and local conditions.
- 1.3 All interpretations, corrections, or changes of the Bidding documents will be made by Addendum. Interpretations, corrections, or changes made in any other manner will not be binding and Bidders shall not rely upon them.

00 20 03 Bidding Documents

- 1.1 Bidding Documents will be distributed by the Contractor only.
- 1.2 Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner, the Contractor, nor the Architect assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 1.3 The Owner, Contractor or the Architect in making copies of the Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the work and do not confer a license or grant for any other use.
- 1.4 Plans, specifications, and addenda are available to pre-approved bidders via the bid invitation system and may be obtained by contacting Ashley Pavlu (see Invitation to Bid).

00 20 04 Interpretations and Substitutions

- 1.1 Bidders and Sub-Bidders requiring clarification or interpretation of the Bidding Documents shall make a written request which must reach the Contractor at least six (6) days prior to the date for receipt of Bids. All questions are to be directed to Ashley Pavlu, Apavlu@mccowngordon.com with McCownGordon Construction Company.
- 1.2 Reference in the specifications to any product, material, type, or form of construction establish a minimum standard of quality, spare parts availability, strength, durability, usefulness, serviceability, operating cost, convenience and purpose intended and shall not be construed as limiting competition. Reference to standard specifications for basic materials shall not be modified for any substitutions proposed. Proposed substitutions shall be submitted by the Bidder to the Architect in writing no later than ten (10) days prior to Bid Date. The submittal shall clearly describe the substitution for which approval is requested, including all drawings and data necessary to demonstrate acceptability. A statement setting forth the changes in other materials, equipment, or other portions of Work, including changes in the work of other contracts that incorporation of the proposed substitution would require shall be included in the submittal. The burden of proof of the merit of the proposed substitution is on the Bidder. All acceptable substitutions will be approved in Addenda prior to Bid Date. Bidders shall not rely upon approval made in any other manner. Requests for substitutions other than as qualified above will not be considered.
- 1.3 No substitutions will be allowed subsequent to the award of a Subcontract except as specifically provided in the General Requirements.

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BID PACKAGE 00 20 00 – BIDDING REQUIREMENTS

00 20 05 Addenda

- 1.1 Notice of Addenda will be emailed or faxed to all who are known to have received a complete set of Bidding Documents.
- 1.2 No Addenda will be issued later than 3 calendar 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.
- 1.3 Each Bidder shall ascertain, prior to submitting his Bid, that he has received all Addenda issued and shall acknowledge their receipt on the Bid.
- 1.4 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

00 20 06 Form and Style of Bids

- 1.1 Bid proposals shall be delivered to the Contractor at the address stipulated in the Invitation to Bid.
- 1.2 A Bid shall state the total lump sum price to do all Work described in the Bidding Documents under a single contract. Dollar amounts shall be stated in both words and figures, and in case of discrepancy between the two, the amount written in words shall govern.
- 1.3 Bidder shall bid all Alternate and Unit Prices requested in the Bidding Documents. The bid for Alternate and Unit Prices described in the Bidding Documents shall include all overhead, profit, and the cost of all changes required from the Base Bid conditions in order to incorporate such Work.
- 1.4 Each Bid shall be executed and signed (with name and title typed below the signature) by and in the name of the Bidder. **All bids shall be submitted on the bid form provided.**

00 20 07 Modification or Withdrawal of Bid

- 1.1 Bids may not be withdrawn, modified, or canceled for a period of time as identified in specification section 00 01 00 Advertisements and Invitations following the time and date finally designated for the receipt of Bids.
- 1.2 Prior to the time and date finally designated for receipt of Bids, any Bid submitted may be modified or withdrawn by notice to the Contractor at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder.

00 20 08 Consideration of Bids and Subcontract Award

- 1.1 Bids will not be accepted after the actual time and date established for receipt of Bids. Bidders shall assume full responsibility for timely delivery at the location designated for receipt of Bids.
- 1.2 Contractor, with input from Owner and Architect, shall have the right to reject any or all Bids and further to waive all informalities in bidding when deemed in the Owner's best interest.
- 1.3 In awarding a Subcontract the Contractor may take into consideration the Bidder's skill, facilities, capacity, experience, responsibility, previous work record, and financial standing and the necessity of prompt and efficient completion of work herein described. Inability of any Bidder to meet the requirements mentioned above may be cause for rejection of the Bid.

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BID PACKAGE 00 20 00 – BIDDING REQUIREMENTS

- 1.4 Bidders to whom a Subcontract is awarded shall execute a Subcontract with the Contractor within seven (7) days after written notice of the award.
- 1.5 The Contractor shall have the right to waive informalities or irregularities in a Bid received and to accept the Bid which, in the Contractor's judgment, with input from the Owner and Architect, is in the Owner's best interest.
- 1.6 The Owner and Contractor may interview the apparent low Bidders before Subcontracts are awarded. The interview will be to ask the Bidder questions about materials, labor, duration, scope of work, the Subcontract Documents, or the Bidder's Prequalification Statement.
- 1.7 The Owner and Contractor shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided for in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and the Alternates accepted.
- 1.8 Rejection of Bids
 - 1.8.1 McCownGordon and the Owner reserve the right to reject any bid where investigation of the information submitted by such contractor does not satisfy McCownGordon or the Owner, that the Bidder has previous experience in performing similar or comparable work, has sufficient business and technical organization, financial resources, and plan available to be used in performing contemplated work.
 - 1.8.2 McCownGordon and the Owner reserve the right to reject any or all Bids and to waive any informality or technicality in bidding. In addition, the Bidder recognizes the right of McCownGordon or the Owner to reject a Bid if the Bidder failed to submit the data required by the Bidding Documents, or the Bid is in any way incomplete or irregular. As a condition precedent to contract award, the Bidder's prior experience, financial status and his proposed subcontractors and suppliers will be carefully considered. If awarded, a contract will be awarded to the best responsible Bidder complying with the conditions of the Bidding Documents.

00 20 09 Post Bid Information

- 1.1 The Contractor will prepare and forward two (2) original drafts of the Master Subcontract/Work Order with the notice of award of Subcontract to the successful Bidder. Bidder shall return properly executed drafts of the Subcontract, together with required evidence of insurance, and Performance and Payment Bonds, if required, to the Contractor within seven (7) calendar days.
- 1.2 If the successful Bidder is doing business under a fictitious name, he shall furnish at no cost to Contractor, if requested, a properly certified copy of his current Certificate of Registration of Fictitious Name from the applicable state and such certificate shall remain on file with the Contractor. No Subcontract will be executed by the Contractor until such certificate is furnished by the Bidder unless there already is on file with the Contractor such a current certificate, during the period of time for which such current certificate remains in effect.
- 1.3 Any successful Bidder which is a corporation organized in a state other project location state shall furnish, at its cost, to the Contractor a properly certified copy of its current Certificate of Authority and License to do business in the applicable state. No Subcontract will be executed by the Contractor until such certificate is furnished by the Bidder unless there already is on file with the Contractor such a current certificate, in which event no additional certificate is required.
- 1.4 Any successful Bidder which is a corporation organized in the applicable state shall furnish at its own cost to the Contractor, if requested, a Certificate of Good Standing issued by the Secretary of State; such certificate to remain on file with the Contractor.

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 20 00 – BIDDING REQUIREMENTS

00 20 10 Bond Requirements

- 1.1 All bidders shall be capable of providing payment and performance bonds for the full amount of the contract sum.
- 1.2 The Bidder shall furnish the cost to provide the following surety bonds in addition to the base bid:
 - 1.2.1 Performance Bond - To cover the faithful performance of the Subcontract.
 - 1.2.2 Labor and Material Payment Bond - To ensure payment of all obligations arising under the Subcontract
- 1.3 Bonds shall be written by a surety acceptable to the Contractor.
- 1.4 If bonds are required, the Bidder shall deliver the Labor and Material Payment Bond and Performance Bond to the Contractor no later than the date of execution of the Subcontract. If the Work is to be commenced prior thereto in response to a letter of intent, the Bidder shall, prior to commencement of the work, submit evidence satisfactory to the Contractor that such bonds will be furnished and delivered in accordance with this Subparagraph.
- 1.5 Unless otherwise provided, the bonds shall be written on the Contractor's bond forms as described in 00 20 12 or any bond forms acceptable to the Contractor at its sole discretion. Bonds shall be written in the full amount of the Subcontract Sum.
- 1.6 The bonds shall be dated on or after the date of the Subcontract Work Order.
- 1.7 The Bidder shall require the Attorney-In-Fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the Power of Attorney.

00 20 15 Miscellaneous Instruction to Bidders

- 1.1 Unit Prices
 - 1.1.1 All unit prices stated on the Bid by the Bidder are prices per unit of measurement for materials or services that will be added to or deducted from the Subcontract Sum by Change Order if quantities of work required are increased or decreased. All unit prices shall include necessary material, labor, equipment, overhead, profit, supervision, permits, and fees.
- 1.2 Alternates
 - 1.2.1 Drawings and general provisions of the Subcontract, including General and Supplementary Conditions and other Division-1 Sections, apply to Alternates.
 - 1.2.2 Bidders shall submit on the Bid the amount to furnish and install the Alternates as detailed on Drawings and Specifications, and as herein described.
 - 1.2.3 The Bidder shall be responsible for all trades, materials, and workmanship involved in the Alternates to the same extent as though they were specified in the Base Bid.
 - 1.2.4 Alternates which are accepted that affect other alternates will be negotiated with the Bidder after taking bids.
- 1.3 The Contractor shall have the right to exercise or reinstate any alternate any time within 60 days after the signing of the Subcontract at the prices quoted on the Bid.

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 20 12 – FORM OF AGREEMENT BETWEEN CONTRACTOR AND
SUBCONTRACTOR



850 Main
Kansas City, MO 64105
816-960-1111
Construction Management/Design-Build/General Contractor

MASTER SUBCONTRACT AGREEMENT

This Master Subcontract Agreement is entered into this _____ day of _____ 2021 by and between **McCOWNGORDON CONSTRUCTION, LLC** ("Contractor") and ("Subcontractor").

WHEREAS, Contractor may, from time to time, enter into contracts with Owners or other parties to furnish labor, materials, supplies, equipment and facilities in connection with certain construction projects, hereinafter called "the **Project,**" and

WHEREAS, in order to facilitate and expedite the work to be performed on each such Project and avoid the need to separately negotiate many of the terms and conditions of the parties' agreements on them, the parties desire to agree to certain of the terms and conditions which shall govern with respect to all work performed on such Projects,

It is, therefore, AGREED as follows:

1. TERMS OF AGREEMENT.

- 1.1. Contractor and Subcontractor agree, as to each Project identified in writing as being governed by this Agreement, to perform it in accordance with the contract between Contractor and Owner and all documents and other matters made part of said contract, including the plans, specifications and conditions for said Project prepared by the Project Architect or Engineer therefor, herein referred to as "Architect," together with modifications thereof and addenda thereto, herein collectively called the "Prime Contract," all of which will be incorporated by reference and expressly made a part of this agreement at such time as they are specifically identified in an individual Work Order executed by the parties provided such documents were given to or made available to Subcontractor. The parties agree that the form of Work Order which they shall use is the Example Work Order attached to this Agreement.
- 1.2. Subcontractor accepts the relationship of trust and confidence established by this agreement and covenants with Contractor to cooperate with the Owner and utilize Subcontractor's best skill, efforts and judgment in furthering the interests of Contractor; to furnish efficient business administration and supervision; to make best efforts at all times to furnish an adequate supply of workers and materials; and to perform the Work in the best and most expeditious and economical manner consistent with the Prime Contract. Subcontractor agrees to be bound to Contractor by all terms of the Prime Contract applicable to this Agreement, or any individual Work Order placed pursuant to this Agreement provided such documents were given to or made available to Subcontractor. Subcontractor shall fully assume and perform all such responsibilities of Contractor in connection with the performance of everything subcontracted to Subcontractor. Subcontractor will perform all Work Orders so as not to violate any terms, covenants or conditions of the Prime Contract and where any provision of the Prime Contract between Owner and Contractor is inconsistent with any provision of this Agreement or individual Work Order, the Agreement or Work Order shall govern.

2. ACCEPTANCE OF SITE AND WORK REQUIREMENTS.

- 2.1. Prior to signing any individual Work Order, Subcontractor understands that it will have been expected to have already examined the Project site and access thereto, and the Prime Contract or any portions of it which it

believes may pertain to the work of Subcontractor. Subcontractor's execution of an individual Work Order shall constitute Subcontractor's acknowledgement that it has been given access to all locations and all documents and other information it deems necessary for the proper preparation of its bid. Subcontractor represents that it is licensed and qualified to do such work, and that it has the machinery, equipment, personnel and experience to perform the work as specified within the time allotted. Contractor may at any time require evidence of Subcontractor's current and ongoing ability to complete the work. Subcontractor shall not be entitled to rely on the accuracy or completeness of any information about the site provided by the Owner except to the extent that the Contract Documents permit such reliance. Otherwise, Subcontractor shall take any and all steps it deems appropriate to ascertain for itself the characteristics of the Project site.

3. THE WORK.

- 3.1.** Subcontractor shall furnish all labor, qualified supervisory personnel, materials, supplies, equipment, tools, facilities and everything else necessary to perform, and shall perform, all the work for the construction and completion of the part(s) of the work of the Prime Contract as contained in the Work Order - Scope of Work, in accordance with the schedule and sequence given to it from time to time, and in compliance with the plans, specifications and other Contract Documents contained in the Work Order and the Project Schedule, each of which shall be attached to the project specific Work Order, and which upon signing the Work Order shall become a part of this Subcontract.
- 3.2.** Before and while proceeding with the work under a Work Order, Subcontractor shall accurately check everything previously, or currently being done by other trades, in any way relating to Subcontractor's work and shall determine the correctness of same. Subcontractor has a continuing obligation to review work that precedes it and if it later is found that there is an error that should have been reasonably noted and reported by the Subcontractor to Contractor, then the Subcontractor waives any claim to additional costs, expenses or damage resulting from. All local codes affecting Subcontractor's performance of its work have been investigated by Subcontractor and compliance with such requirements is included as part of this Agreement.
- 3.3.** No materials shall be delivered to the Project site or storage areas that are not for use on this Project, and no equipment shall be delivered to or allowed to remain on the site except when it is needed for the execution of Subcontractor's Work. For all temporary equipment, construction equipment and scaffolding brought to the site, Subcontractor shall provide Contractor with written documentation, including make, model and (where available) serial numbers, and Subcontractor shall identify whether each piece of such equipment is owned or rented. Lien waivers for all rented equipment will be required prior to payment to Subcontractor of progress or final payments.

4. PAYMENT.

- 4.1.** Contractor agrees to pay Subcontractor for said work and everything required of Subcontractor in and by the Work Order, the sum set forth in the Work Order, subject to additions and deductions for changes as may be agreed upon in advance in writing and subject to the other terms of the Prime Contract, this Agreement or the Work Order. Subcontractor shall submit to Contractor a schedule of values allocating the Work Order Price among the various line items associated with the items covered by a Work Order. It is agreed that no payments are to be made to Subcontractor until an appropriate Schedule of Values is agreed upon by Contractor and Subcontractor, and unless Subcontractor's rate of progress, work done and materials and services furnished are satisfactory to Owner and Contractor.
- 4.2.** Applications for Payment shall be submitted using Contractor's attached "Application and Certification for Payment form. Payment shall be made only for actual work performed to the satisfaction of Owner and Contractor, and only upon Subcontractor's evidence of payment of all of its job-related obligations, including, if requested by Contractor, delivery of partial lien waivers on the attached Partial Lien Waiver form, a current list of all sub-Subcontractors, equipment lessors and suppliers with contract values in excess of \$5,000 whose work

or materials or equipment were performed or delivered during the period covered by the application for payment on the attached Materialman List, and an affidavit attesting to the completeness and accuracy of the information on the Materialmen List in the form of the attached Affidavit to this Agreement. Subcontractor understands that Contractor intends to pay Subcontractor out of payment proceeds received from Owner for Subcontractor's work. Accordingly, shall be due Subcontractor within seven (7) days after Contractor receives payment from Owner, less retainage as may be set forth in the Work Order, which Contractor may withhold from payments otherwise due Subcontractor. In the event any items performed by Subcontractor are to be paid for at unit prices, the quantities shown are estimates only and the amounts to be paid Subcontractor shall be determined by the actual quantities of work performed or material furnished, or both, and as determined and paid for by Owner or its authorized representatives.

- 4.3.** Subcontractor agrees that title to materials will pass at the earlier of payment made or incorporation of the same into the work. Subcontractor shall remain responsible for insuring and safeguarding stored materials until installed and accepted by Owner. Under no circumstances shall prior passage of title to Owner or Contractor, prior payment by Owner or Contractor, acceptance of such release or acceptance, occupancy, use or installation of any work performed or articles delivered hereunder be deemed to (a) constitute acceptance or approval of work done under any Work Order, (b) affect the responsibility of Subcontractor to perform as required, (c) affect the right of Contractor or Owner to reject any such work determined upon inspection not to be in the condition required, or (d) be acceptance of defective work or a waiver of Contractor's rights and Subcontractor's obligations under this Agreement or any individual Work Order. Without limitation on the foregoing, any acceptance of Subcontractor's work shall not relieve or discharge Subcontractor or its surety from any of its obligations and warranties.
- 4.4.** Contractor shall have the right to withhold, out of monies otherwise due to Subcontractor: the sum assessed against Contractor, or the actual cost to Contractor (whichever is greater) per day for each and every day required to complete the work beyond the time allowed in the Work Order or the Project Schedule therefor, including but not limited to liquidated damages or actual damages assessed against Contractor on account of Subcontractor's acts or omissions; any sums which Subcontractor has not paid to vendors, sub-Subcontractors, taxing authorities or other obligations associated with the Work, for or on behalf of its employees, such as withholding taxes or pension contributions, or penalties thereon, until such time as Subcontractor provides written evidence from the appropriate entity that Subcontractor's obligations have been satisfied; and an amount equal to damages arising out of Subcontractor's work or its failure to perform in accordance with this Agreement or individual Work Order, including damages sustained by Contractor, until indemnity acceptable to Contractor is furnished by Subcontractor provided Subcontractor was notified in writing and has had 10 calendar days to satisfy its obligations.
- 4.5.** Subcontractor agrees that all funds received shall be used first for payment of labor, material, equipment, supplies and services related to this work and said monies shall not be diverted to satisfy obligations of Subcontractor on other contracts until all obligations under or in connection with this Subcontract are satisfied in full. Contractor may withhold any payment or pay directly or by joint check to sub-Subcontractors or suppliers unless Subcontractor has furnished Contractor with evidence satisfactory to it that Subcontractor has paid such debts in full and performed all other obligations incumbent on Subcontractor provided Subcontractor was notified in writing and has had seven (7) days to satisfy its obligations.
- 4.6.** Final payment under any Work Order shall be made within seven (7) days after all of the following have occurred: (a) completion of said Project; (b) written acceptance thereof by Owner and Architect; (c) Owner has made full and final payment therefor to Contractor; (d) full releases, on the attached Final Lien Waiver form, of all claims against Owner, Contractor and the Project by Subcontractor and its sub-Subcontractors and suppliers; and (e) consent of Subcontractor's surety, if applicable.
- 4.7.** In the event that Owner does not pay Contractor for the work of Subcontractor for reasons not due to the fault of

Subcontractor, Subcontractor agrees that it shall not take legal action until it has given Contractor a reasonable time to pursue collection of funds against the Owner. Nothing stated in this paragraph shall prevent Subcontractor from filing a mechanic's lien against Owner's property for such non-payment, however, nor to preclude Subcontractor from taking other action sooner if such action is required to avoid forfeiture under a statute of limitation or other time limitation for action.

5. **SCHEDULE OF WORK.** Subcontractor shall begin work as specified in the Work Order, and shall carry the same forward promptly, efficiently, and at a speed stated in the schedule. Subcontractor recognizes that revisions in the planning schedule are inherent in the nature of construction, which may result in revisions to the schedule of work during construction. Subcontractor acknowledges that Contractor cannot guarantee that Subcontractor will be able to start on any particular date, or continue without interruption once started. In the event that Subcontractor falls behind schedule, due to events not the fault of Contractor, Subcontractor shall work additional required hours, bring in additional materials or equipment, or take such other steps as may be deemed necessary in the opinion of Contractor to get back on schedule at no additional expense to Contractor.
6. **SUB-SUBCONTRACTORS.** Prior to receiving its first payment under a Work Order, Subcontractor shall furnish to Contractor a complete list of its vendors and sub-Subcontractors on the attached Materialman List, to permit Contractor to ascertain on an on-going basis that such firms are complying with all pertinent requirements of the Prime Contract, this Agreement or any Work Order, as well as to verify that these firms have received payment from Subcontractor from funds paid by Contractor. Subcontractor shall have a continuing duty to update its list of sub-Subcontractors and vendors, and Subcontractor's failure to do so may result in withholding of funds by Contractor in order to protect against liens and bond claims. Subcontractor shall incorporate into all sub-subcontracts and purchase orders the requirements of the Prime Contract, this Agreement or any Work Order including, but not limited to, insurance, indemnification, warranties and remedies. All of Subcontractor's sub-subcontracts and purchase orders shall contain a provision permitting the assignment of such agreements to Contractor in the event of default by Subcontractor.
7. **DELAYS.**
 - 7.1. Subcontractor shall be responsible to Contractor for the damages which Contractor may incur by reason of any delays caused or contributed to by Subcontractor, its agents, employees, suppliers or sub-Subcontractors, including but not limited to liquidated or actual damages assessed by the Owner against Contractor, provided Subcontractor was notified in writing and it was finally determined the delay was caused by the Subcontractor. If liquidated damages are included in the Prime Contract, they will be identified on the Work Order. In the event that claims are made by others against Contractor due to delays caused by Subcontractor, Subcontractor shall indemnify, defend and save harmless Contractor from all loss, damage and expense, including attorney's fees, associated with such claims.
 - 7.2. Should Subcontractor be delayed in the performance of its work, Subcontractor may be entitled to an extension of time for performing its work, but only to the extent actually allowed to Contractor by Owner under the terms of the Prime Contract. No claim for an extension of time or damages shall be allowed to Subcontractor under any circumstances unless Subcontractor gives a written notice of a potential claim to Contractor within three (3) working days from the time of the beginning of the occurrence causing the delay, or such shorter time as may be provided in the Prime Contract.
8. **TIME.** Time is of the essence and all of the work of Subcontractor shall be fully and properly completed within the time required to permit Contractor to timely complete and fulfill all of its obligations under the Prime Contract.
9. **DEFECTIVE WORK.** In the event that any of Subcontractor's work is deemed to be defective by Contractor, Owner, Architect or any inspecting agent, building inspector or other governing approval body, Subcontractor shall immediately remove and replace that work at its own expense upon written demand by Contractor, if the

Subcontractor has not responded within three (3) days of written notification or Contractor will arrange for the defective work to be removed and replaced at Subcontractor's expense.

- 10. CHANGES.** Contractor may, at any time, without invalidating this Agreement or individual Work Order, make any changes or alterations in the work covered by this Subcontract or order extra or additional work which it may deem expedient. No directive to perform work different or in addition to the Scope of Work of a Work Order shall be binding on Contractor unless issued in writing by an authorized representative of Contractor. With respect to such changes, or alterations, or additional or extra work, Contractor shall not be liable to Subcontractor for a sum greater than Contractor obtains from Owner on behalf of Subcontractor for such changes, unless expressly agreed upon in writing in advance. Subcontractor will not be paid for any additional or extra work or changes unless Contractor gives a written order to Subcontractor before the work is performed or changes ordered. Subcontractor shall comply with all requirements of the Prime Contract for documentation and submission of claims for additional time or money, and submit such claims to Contractor in itemized detail in time for Contractor to review them prior to required submission to Owner. If the Prime Contract does not specify a time limitation for notice of cost or time impact from changes, Subcontractor shall provide such written notice to Contractor in no more than five (5) working days from receipt of the order by Subcontractor.
- 11. WARRANTY.** Subcontractor shall perform Contractor's warranty to Owner under the Prime Contract for all work under any Work Order. Further, Subcontractor unconditionally warrants that all labor, material and services furnished by it are in strict accordance with the Prime Contract, and Subcontractor shall promptly make good upon demand any defects, including the repair of the work of any other Contractor affected, to the entire approval of Contractor, Owner and Architect regardless of the expiration of any manufacturer's warranty, as directed by Contractor. Should Subcontractor refuse or neglect to proceed to promptly correct rejected materials or workmanship within three (3) calendar days of written notice from Contractor, Contractor shall have the right to have the defects remedied at the expense of Subcontractor, and deduct such amounts from sums otherwise due Subcontractor. The obligations set forth in this paragraph are continuing and shall survive occupancy, completion of the construction project, acceptance of work, or final payment to Subcontractor.
- 12. INDEMNITY.** Subcontractor agrees to indemnify, defend and hold harmless Contractor and Owner and such other parties as identified in the Prime Contract from and against (i) all claims, causes of action and expenses arising out of injury to (including death of) any persons or damage to property alleged to have been caused in whole or in part by any act or omission of Subcontractor, its agents, employees, sub-Subcontractors, suppliers or invitees, or growing out of or incidental, directly or indirectly, to the performance of the Subcontract regardless of how such injury, death or damage be caused, and (ii) all claims, causes of action and expenses caused by any act or omission (whether or not negligent) of Subcontractor, its agents, employees, sub-Subcontractors, suppliers or invitees, in the prosecution of the Subcontract. Subcontractor shall defend all suits brought against Contractor and/or Owner on account of any such claims of liability, shall pay any settlements made or judgments rendered with respect thereto, and shall reimburse and indemnify Contractor for all expenses, including court costs and reasonable attorneys' fees, incurred by Contractor. The obligations set forth in this paragraph, or any other indemnity obligations set forth in this Subcontract, are continuing and shall survive occupancy, completion of the construction project, acceptance of work, or final payment to Subcontractor.
- 13. LIENS.**

 - 13.1.** Subcontractor shall fully indemnify, defend and hold harmless Contractor and Owner against any and all liens, claims, security interests or conditional bills of sale (hereinafter collectively referred to as "liens") of laborers or material men of Subcontractor and sub-Subcontractors of Subcontractor. If at any time there shall be evidence of a lien for which Owner or Contractor might become liable, which in any way relates to Subcontractor's work, Contractor shall have the right to retain, out of any payments then due or thereafter to become due, an amount sufficient to completely indemnify and protect Contractor and Owner against such lien.

13.2. Subcontractor shall promptly remove or discharge any lien (unless Subcontractor and Contractor have not been paid for the work covered by the lien by Owner), and if Subcontractor shall fail to do so within the lesser of the period set forth in the Prime Contract, if any, or three (3) working days after delivery of written notice from Contractor, Contractor shall, in addition to its other rights hereunder, have the right to remove and discharge the same, in order to protect its interest and as authorized agent of Subcontractor, at the expense of Subcontractor.

14. INSURANCE. Subcontractor agrees to procure and carry at its cost, until completion of this Subcontract, all applicable warranty periods and the statute of repose, all insurance as evidenced on Subcontractor's certificate attached hereto and on the attached "INSURANCE REQUIREMENTS" unless greater insurance coverage is required by a specific Work Order. Subcontractor must submit a copy of the additional insured endorsement(s) and insurance certificates, written on a standard ACORD form. Contractor may require that Subcontractor provide complete certified copies of the insurance policies required by the Insurance Requirements attachment. All insurance is to be issued by companies and with liability limits reasonably acceptable to Contractor. If Subcontractor should sub-subcontract any of its Work to a third party or issue purchase orders, Subcontractor shall ensure that such third party maintains such insurance and shall furnish evidence thereof to Contractor. Specifically, if Subcontractor's scope of work includes any design responsibility, Subcontractor and its licensed design professional shall furnish the professional liability insurance described in the Insurance Requirements attachment. The attached Insurance Requirements are incorporated herein by reference as fully as if reprinted herein and is in integral part of this Agreement and shall apply to any Work Orders entered into by the parties.

15. SURETY BONDS. If designated on a Work Order, Subcontractor shall provide a Performance Bond and a Payment Bond with a penal sum equal to the full amount of the Work Order, each naming Contractor as obligee in a sum not less than the amount of the Subcontract and using the attached payment/performance bond forms, unless otherwise agreed by Contractor, and with a corporate surety on each bond acceptable to Contractor. Such bonds shall be adjusted in penal sum in connection with the issuance of Change Orders to Subcontractor, through delivery of a Rider to the bonds where necessary to assure the obligation of the surety. No payment shall be due to Subcontractor until such bonds are furnished. The bonds shall assure the faithful performance of all of the stipulations of the Subcontract for which they are written and the payment of all persons furnishing labor, services, equipment or materials used or purchased for use in the work covered that Subcontract. In the event that the amount of the Subcontract is increased, the bonds shall also automatically be increased in amount, without prior notice to the surety, and it will be the responsibility of Subcontractor to include in its proposals the cost of additional bond premiums to cover additional premiums.

16. TERMINATION/SUSPENSION.

16.1. In the event the Prime Contract is terminated or halted under its terms or by an order of court or other public authority, or Contractor elects to take action pursuant to paragraph 17.2 below, Contractor shall, at its sole option, have the right to terminate or suspend any Work Order as of the date of such action. In the event that a Work Order is terminated, Subcontractor shall only be entitled to the actual, direct costs of all labor and material expended on the job prior to the effective date of the termination or suspension. In no event shall Subcontractor be entitled (a) to anticipatory profit or damages for any termination or suspension; (b) to assert a claim in quantum meruit or any other measure of damages other than that stated herein; or (c) to receive a sum in excess of what Owner pays to Contractor for such work of Subcontractor. In the event of suspension of the work covered by a Work Order, Subcontractor shall receive such adjustment to its Subcontract as is allowed under the Prime Contract. Contractor shall have the right to terminate for convenience Subcontractor's performance of all or a part of this Agreement or a Work Order by providing Subcontractor with a written notice of termination for convenience, to be effective upon receipt by Subcontractor. If there has been a termination of Contractor's contract with the Owner, the Subcontractor shall be paid the amount due from the Owner for its work, as provided in the Contract Documents, after payment therefor by the Owner to Contractor. If Contractor's contract has not been terminated, Subcontractor shall be paid the reasonable value of work

performed by Subcontractor prior to termination plus reasonable direct close-out costs but in no event shall Subcontractor be entitled to unabsorbed overhead or anticipatory profit.

16.2. If Contractor shall become insolvent or make an assignment for the benefit of creditors or commit any act of bankruptcy, or a petition in bankruptcy shall be filed by or against Contractor; or Contractor shall fail in any manner to perform the whole or any part of any term or agreement contained or assumed herein or by Work Order or the Prime Contract, Subcontractor shall have the right to (a) in the event of bankruptcy, petition the Bankruptcy Court for rejection of the contract. Subcontractor may terminate a Work Order for nonpayment of amounts due under the Work Order provided that Subcontractor has given Contractor prior written notice of such default and a minimum of thirty (30) days from receipt of notice of such default to cure prior to Subcontractor's termination. In the event of such termination by Subcontractor for any reason which is not the fault Contractor, its subcontractors or their agents or employees or other persons performing portions of the Work under contract with the Subcontractor, the Subcontractor shall be entitled to recover from Contractor payment for Work properly executed up to the date of termination.

17. DEFAULT.

17.1. If Subcontractor shall become insolvent or make an assignment for the benefit of creditors or commit any act of bankruptcy, or a petition in bankruptcy shall be filed by or against Subcontractor, and Subcontractor does not immediately furnish Contractor with evidence of its intent and ability to affirm the Subcontract and complete all work in accordance with the terms of this Subcontract and any Work Order; or Subcontractor shall fail in any manner to perform the whole or any part of any term or agreement contained or assumed herein or by Work Order or the Prime Contract, Contractor shall have the right to (a) in the event of bankruptcy, petition the Bankruptcy Court for rejection of the contract; (b) provide such materials, supplies, equipment and labor in addition to any supplied by Subcontractor, as may be necessary to complete Subcontractor's work and pay for the same and deduct the amount thereof from any money which is then or would thereafter otherwise be due Subcontractor; (c) bar Subcontractor from the Project (with or without terminating the Work Order) and enter upon the premises and take possession for use and consumption in completing the work of all the materials, supplies, tools, equipment, appliances and facilities of Subcontractor thereon or thereat and complete the work, or have the same completed by others, or any combination of such methods; (d) withhold any further payment from Subcontractor until all work provided for by Subcontractor shall be wholly finished; and (e) pay for all of the same and deduct the amount so paid from any money which is then or would thereafter otherwise be due Subcontractor.

17.2. In the event of the exercise of any default rights by Contractor as set forth above, all costs incurred, including (but not limited to) the cost of materials, labor, Subcontractors, transportation, equipment expense and rentals thereon, supplies, services, insurance, taxes, appliances, tools, utilities, power, supervision, administration, job overhead, travel, payment of claims against Subcontractor for which Contractor or Owner might be liable, or settlement of which is in the best interests of the Project, legal and accounting fees and expenses, Contractor's general overhead as allocated to the work and other costs and expenses incurred or sustained by Contractor, plus ten percent (10%) of the actual cost of the work performed, shall be deducted from the Work Order price and sums otherwise due Subcontractor.

18. LABOR AND EMPLOYMENT MATTERS

18.1. Subcontractor shall comply with the wage scales and labor policies of Contractor or as may be contained in the Prime Contract, specifically including the provisions of any agreements providing for hiring and union-security and for the making of payments under health and welfare or other fringe benefit funds or plans, to the extent that the terms of such agreements can legally be applied to the Subcontract work. Subcontractor shall not employ any workers whose employment is objected to by Contractor or Owner or which violates any such labor agreements. Subcontractor agrees to abide by any two-gate system or other procedures designed to facilitate Project work, and agrees that its manpower, equipment and deliveries will not be delayed due to use of a two-

gate system and/or union picketing. Subcontractor agrees that if any portion of such work is further subcontracted, such sub-Subcontractor shall be contractually obligated to be bound by, and observe the terms of, such collective bargaining agreements to the same extent as is herein required of Subcontractor, and that an express provision imposing such obligation upon the sub-Subcontractor shall be included in any such sub-subcontract.

18.2. In the event of a strike or stoppage of work resulting from a dispute involving or affecting the labor employed by Subcontractor or its sub-Subcontractors, Contractor may at its option terminate or suspend the right of Subcontractor to proceed on a Work Order or terminate an individual Work Order or this Agreement upon 48 hours' notice, and it shall be obligated only to compensate Subcontractor in accordance with paragraph 17 hereof.

18.3. Subject to Contractor's approval, Subcontractor shall employ a competent superintendent to direct its Work and shall not remove its superintendent from the work without Contractor's written approval. This superintendent shall be onsite whenever work is being performed by Subcontractor. This person shall be fluent in all languages necessary to effectively communicate with Contractor's staff and Subcontractor's staff and sub-Subcontractors. He or she shall give Contractor's Superintendent his/her home and mobile phone numbers, email address and pager number. Any employee of Subcontractor adjudged by Contractor to be unskilled or unqualified or whose employment, in Contractor's judgment, would be detrimental to Contractor's work shall promptly be removed from the Project upon receipt of written notice from Contractor and shall not be re-employed on the Project without the written consent of Contractor.

18.4. Subcontractor shall comply with all laws protecting the rights of its employees and potential employees, including Equal Employment Opportunity laws (specifically, Executive Order 11246 September 24, 1965, attached to this Subcontract in the EEO Requirements attachment) and any relevant state acts against discrimination, and the rules, regulations, and relevant orders of the Secretary of Labor which are applicable to Subcontractor's performance of its Work. Subcontractor shall execute a copy of the EEO Compliance Certificate included in the EEO Requirements attachment, and shall indemnify, defend and hold harmless Contractor against any expense incurred including imposition of fines which results from violation of such laws.

19. PROTECTION OF PERSONS AND PROPERTY.

19.1. Subcontractor assumes exclusive responsibility for protection of its personnel, materials, equipment, facilities and work, including fall protection, trenches and shoring for trenches and excavations. Subcontractor shall initiate, maintain and supervise all safety precautions and programs in connection with its work, and post all necessary notices and warnings, with minimum standards as set forth on the Safety Requirements attachment attached to this Agreement. It shall take all reasonable precautions for the safety of, and shall provide protection to prevent damage, injury or loss to:

19.1.1. all its employees on the Project and all other persons who may be affected thereby;

19.1.2. all its work and all materials and equipment to be incorporated therein, whether in storage on or off the job site, or in transit, and regardless of whether legal title has passed to Owner under the terms of the Prime Contract, which is within the care, custody or control of Subcontractor, or any of its sub-Subcontractors;

19.1.3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

19.2. Subcontractor shall designate a responsible member of its organization at the site whose duty shall be the prevention of accidents. This person shall be deemed to be Subcontractor's superintendent unless otherwise

designated in writing by Subcontractor to Contractor. Subcontractor shall notify Contractor of any injury to its employees, or employees of sub-Subcontractors, immediately. Subcontractor shall include a similar section in all its sub-subcontracts, but shall nevertheless remain responsible for all recordkeeping, notification and posting requirements, and for all violations of law, citations, fines or penalties assessed against any of its sub-Subcontractors. If applicable, Subcontractor shall furnish all required Material Safety Data Sheets (MSDS) for materials utilized in the course of its work. Subcontractor shall complete Contractor's Emergency Contact Information Form for each Work Order issued.

- 20. TAXES.** Taxes, as applicable under the Prime Contract, are included in the price to be paid to Subcontractor under a Work Order, and Subcontractor assumes and accepts exclusive liability for, and agrees to pay (a) all taxes, contributions, interest and penalties under any governmental or private old age benefit, welfare benefit, social security, pension, annuity, or unemployment compensation or insurance law, plan or program now existing or hereafter imposed, (b) all taxes and contributions required to be withheld from or in respect of wages and salaries, under any law now existing or hereafter imposed, including interest, and penalties, (c) all taxes measured by receipts in connection with the work under a Work Order and all sales, use, income, occupation or excise taxes, including interest and penalties, referable to any Work Order or this Agreement or anything to be done or furnished by Subcontractor and all permits, fees and licenses relative to the work covered by this Subcontract. If a specific Project is tax-exempt, Contractor shall issue to Subcontractor documentation to verify this, and it will be included as an Exhibit to the Work Order, and Subcontractor shall comply with all procedures required to satisfy the Owner or government's requirements with respect to same.
- 21. COMPLIANCE WITH LAWS.** Subcontractor agrees to comply with all federal, state or local laws, ordinances, regulations and administrative orders applicable to performance of work under a Work Order, and to fully indemnify and hold harmless Contractor on account of any violation by Subcontractor thereof. Subcontractor agrees to indemnify Contractor against any expense incurred including imposition of fines which results from Subcontractor's violation of such laws. Subcontractor acknowledges that its work area on any Project and all places where its materials, supplies, equipment and facilities are located are under its exclusive control and Subcontractor is solely responsible for the detection and abatement of any conditions not in compliance with such laws, and Contractor is not and shall not be responsible for them.
- 21.1.** Subcontractor represents that, to the extent required by law, it is duly licensed as a construction contractor for the type of work covered by this Subcontract. Subcontractor's failure to obtain or maintain required licenses shall be a material default.
- 21.2.** Subcontractor shall be responsible for ensuring compliance with the Immigration Reform Act of 1986 and all laws regulating immigration and the verification of eligibility for employment of persons. Subcontractor shall use Form I-9 to verify that its employees are eligible for employment and keep records of such verification for the periods prescribed by the Immigration Reform Act of 1986.
- 21.3.** Effective January 1, 2009, all Subcontractors and sub-Subcontractors with contract amounts in excess of \$5,000 on public projects in Missouri are required to verify the employment eligibility status of employees through the E-verify federal program administered by the Department of Homeland Security, U.S. Citizenship and Immigration Services. If the Project is a public one performed in Missouri, Subcontractor will be required to use E-Verify and complete an affidavit attesting to its compliance as required by R.S. Mo. 285.530.1 on a form to be included with the Work Order. At such time as Subcontractors are required to utilize E-Verify for federal contract work or other public or private work, compliance with any such requirements shall also be part of this Subcontract. Subcontractor shall indemnify, defend and hold harmless Contractor against any expense incurred including imposition of fines which results from violation of such laws.
- 21.4. Missouri Safety Training Requirements** In the event that the Project involves a public works project in the State

of Missouri, Subcontractor and all sub-Subcontractors shall provide a 10-hour OSHA construction safety program or similar program approved by the Missouri Department of Labor and Industrial Relations, to be completed on site by all employees within sixty (60) days of beginning work on the Project, pursuant to Section 292.675, Revised Statutes of Missouri. Subcontractors and sub-Subcontractors in violation of this requirement will forfeit to the public owner \$2,500 plus \$100 per day for each employee without training. Public bodies and Contractor may withhold penalties from the payment due to Subcontractor and its sub-Subcontractors. To assure compliance with this requirement, Subcontractor and all sub-Subcontractors will be required to provide such training and complete an affidavit attesting to its compliance as required by statute on a form to be included with the Work Order.

- 22. SAMPLES, SHOP DRAWINGS.** Subcontractor shall submit all samples, shop drawings, test and other data as required hereunder by the earlier of thirty (30) days from the date of the Work Order or the date required by the Project Schedule. Any handling, transmittal, approval or anything else done by Contractor with respect to these shall not relieve Subcontractor from responsibility for errors in the samples, shop drawings or other data and shall not relieve Subcontractor of its obligations to perform its work in accordance with the intent of the Contract Documents or any term of this Agreement or Work Order and of its responsibilities for any deviations from the requirements of either of them.
- 23. DECISIONS.** Any decision concerning the work, or termination thereof, the quantity or classification of anything done hereunder, the intent or application of the Prime Contract or claims for payment or compensation hereunder in respect to work done or omitted under a Work Order which is binding upon Contractor shall bind Subcontractor absolutely, whether such decision be made by Owner, Architect or any officer, agency or tribunal empowered to render the same by the Prime Contract or as a result of any procedure referred to therein or contemplated thereby.
- 24. DISPUTES.** In case of any dispute between Subcontractor and Contractor, Subcontractor agrees to be bound to Contractor to the same extent Contractor is bound to Owner by the terms of the Prime Contract and by any decisions made thereunder by Owner, Architect or any other party authorized to render the same by the Prime Contract. Subcontractor agrees to exhaust all remedies which are available to it through Contractor, or to participate in mediation, prior to instituting a separate action in court or otherwise; and in the event a separate action is instituted prior to the exhaustion of such remedies, Subcontractor agrees to stay such action pending Contractor's exhaustion of Subcontractor's remedies against Owner. Subcontractor agrees that the dispute resolution provisions of the Contract Documents, if any, including binding arbitration, are incorporated by reference as part of this Subcontract so as to be binding as to disputes between Subcontractor and Contractor that involve, in whole or in part, questions of fact and/or law that are common to any dispute between Contractor and Owner or others similarly bound to such dispute resolution procedures, and that all such disputes may be consolidated for hearing and resolution by the same arbitration or other tribunal specified in the contract between Contractor and Owner. Subcontractor consents to the joinder and participation of other parties as Contractor deems appropriate.
- 24.1.** If Subcontractor makes a claim of any nature, Subcontractor agrees to present such claim in writing, with full documentation therefor, to Contractor within sufficient time for Contractor to take the action required within the time limitations of the Prime Contract for asserting claims against Owner. Contractor shall not be obligated to appeal from any decision, or to prosecute any claim on behalf of Subcontractor, and Contractor may, at its option, abandon to Subcontractor any such claim by giving written notice to Subcontractor that Contractor will no longer prosecute such claim. In such event, Subcontractor shall have the right to prosecute such claim in the name of Contractor, but at Subcontractor's own cost and expense.
- 24.2.** Subcontractor agrees to participate in such dispute resolution procedure (including binding arbitration) as is contained in the Prime Contract, or if Contractor does not elect to require use of procedures in the Prime Contract, to participate in mediation and/or arbitration under the Construction Industry Rules of the American Arbitration Association. Contractor shall make its election to require use of either procedure by written notice to

Subcontractor within thirty (30) days of receipt of Subcontractor's claim, or with delivery of Contractor/Owner's claim against Subcontractor.

24.3. It is the intent of Contractor to resolve disputes as quickly, efficient and amicably as possible. To this end, Contractor reserves the right to require a meeting with senior management of Subcontractor within ten (10) days of demand by Contractor to resolve outstanding disputes. Both parties must commit to use their best faith efforts to resolve disputes, and meet again, as necessary, to facilitate this process. If the dispute has not been resolved within twenty (20) days of the first meeting, Subcontractor may proceed with its other remedies under this Agreement. Nothing contained herein shall excuse Subcontractor from completion of the work in the manner provided in this Agreement or Work Order, nor shall the pendency of any dispute or arbitration proceeding excuse any interruption, deficiency, delay, default or noncompliance therewith.

24.4. This Agreement, Work Orders and all disputes between the parties shall be governed by the laws of the State of Missouri, and the jurisdiction and venue for any action between the parties shall be solely and exclusively in Jackson County, Missouri, unless the Project is covered by the Miller Act, 40 U.S.C. § 270 *et seq.*, in which case jurisdiction shall lie exclusively in the United States District Court for the Western District of Missouri. In the event that this clause is not enforceable, the parties agree that a lawsuit filed in any other jurisdiction, including the jurisdiction where the project work is performed, may be stayed by the court upon request of either party to allow time for issues to be resolved in an action brought in the court referenced above, and any judgment entered in a Missouri court shall be fully enforceable in that original court action.

25. DESIGN RESPONSIBILITY. If any portion of the Work subcontracted to Subcontractor includes responsibility for design, Subcontractor represents that the design will be prepared by a licensed design professional in the state where the Project is located in accordance with all laws or regulations governing the same. Subcontractor agrees that such design shall be prepared in accordance with the highest standard of care for design professionals in the locality where the Project is located.

26. INDEPENDENT CONTRACTOR. Subcontractor shall be and is an independent Contractor and assumes all of the rights, obligations and liabilities applicable to it as such. The exercise of any of the rights reserved to Contractor in this Agreement shall only be for the purpose of assuring that the work is being performed and results accomplished according to the terms of this Agreement and according to the terms of the Prime Contract.

27. FACILITIES, CLEANUP. Subcontractor shall provide at its own expense whatever services, storage sheds, work shops and offices are necessary for the performance of its work. Subcontractor shall clean up on a daily basis all refuse, rubbish, scrap materials and leave its work area broom-clean. Subcontractor shall deposit waste in containers as directed by Contractor. If Subcontractor refuses or fails to perform this cleaning as directed by Contractor after 24 hours notice, Contractor shall have the right and power to proceed with said cleaning, and Subcontractor will on demand repay to Contractor the cost thereof, or Contractor may deduct such sums from sums otherwise due Subcontractor. This includes responsibility for the proper removal of any material identified by the EPA on its List of Identified Hazardous Waste or that displays hazardous characteristics.

28. INTERPRETATION. All negotiations, quotations, proposals and/or agreements prior to the date of this Subcontract not included herein are hereby voided and this is the sole agreement of the parties. This Subcontract shall bind the representatives, executors, administrators, successors, receivers, and assigns of the parties hereto. No provision contained in this Subcontract shall create or give to third parties any claim or right of action against Contractor or Subcontractor in addition to those legally existing in the absence of such provision. The captions in this Subcontract are for convenience or reference only and shall not define or limit any of the terms or provisions hereof. If any portion of this document should be found to be unenforceable, it is agreed that the remaining provisions shall remain in full force and effect. Additions or changes to this Subcontract shall be in writing signed by the parties hereto. Waiver of any provision of this Subcontract or any breach hereof shall not constitute a waiver of any other provision or any subsequent breach of the same or any other provision hereof. Although drawn by Contractor, this Agreement shall, in

the event of any dispute over its meaning or application, be interpreted fairly and reasonably, and neither more strongly for or against either party.

- 29. **ASSIGNMENT.** Subcontractor shall not assign or subcontract any Work Order or any part of its scope, or any interest therein, or assign any monies due or to become due to Subcontractor without first obtaining the written consent of Contractor, and no such assignment shall be binding on Contractor unless and until accepted in writing by Contractor.
- 30. **NOTICE.** Subcontractor agrees that three (3) working days' written notice of any action Contractor proposes to take hereunder shall be sufficient. Written notice shall be deemed to have been duly served upon Subcontractor when delivered to Subcontractor by mail, facsimile transmission, or in person. Any notices or documentation submitted to Subcontractor for further submission to Owner or its designer or any governmental entity shall be submitted to Contractor sufficiently in advance to allow for Contractor's review and subsequent transmittal.
- 31. **PRECONDITION.** No Work Order shall become binding on Contractor until Subcontractor has furnished Contractor with the required Certificates of Insurance and Endorsements, and any other documents or items specified in the this Agreement, the Work Order and Prime Contract, AND SUBCONTRACTOR MAY NOT BEGIN WORK UNTIL REQUIRED ITEMS HAVE BEEN SUBMITTED, and Subcontractor has been approved by Architect, Owner and any other party required so to do by the Prime Contract If any of them shall fail or refuse to approve Subcontractor, the Work Order shall be null, void and of no force or effect and Contractor shall owe nothing to Subcontractor. The following ATTACHMENTS are incorporated herein by reference as fully as if reprinted herein and are all integral parts of this Agreement, and shall apply to any Work Orders entered into by the Parties:

- 31.1. Example Work Order
- 31.2. Payment Application Instructions
- 31.3. Partial Lien Waiver
- 31.4. Materialmen List
- 31.5. Affidavit
- 31.6. Final Lien Waiver
- 31.7. Insurance Requirements
- 31.8. EEO Requirements
- 31.9. Safety Requirements

IN WITNESS WHEREOF, the parties have executed this Subcontract in multiple copies on the day and year first above written.

McCownGordon Construction, LLC



By: _____

By: Jeff Placek

Title: _____

Title: Chief Financial Officer

Date: _____

Date:

McCownGordon
850 Main Street
Kansas City, Missouri 64105
Phone: (816) 960-1111
Fax: (816) 960-1182

Project Name Here

Attachment No. 001 - Example Work Order

SWO - Scope of Work

DATE CREATED:

CONTRACT COMPANY:

CREATED BY:

CONTRACT STATUS:

EXECUTED:

OWNER CONTRACT DATE:

MASTER
AGREEMENT DATE:

SIGNED CONTRACT RECEIVED DATE:

DEFAULT RETAINAGE:

LIQUIDATED DAMAGES:

OVERHEAD MARKUP:

BONDS REQUIRED:

PROFIT MARKUP:

TAX EXEMPT:

OH&P For Work Performed
By Own Forces:

OH&P For Work Performed
By Others:

DESCRIPTION:

INCLUSIONS:

EXCLUSIONS:

EXHIBITS:

ATTACHMENTS:

Subcontractor is expected to fulfill all the obligations contained in the Master Subcontract Agreement (the "MSA"), and, in addition, the following requirements. In the event of any inconsistency between the MSA and this Work Order, Subcontractor shall comply with the more stringent requirement.

McCownGordon
850 Main Street
Kansas City, Missouri 64105

SUBCONTRACTOR
Street Address
City, State, Zip Code

SIGNATURE

DATE

SIGNATURE

DATE

Master Subcontract Agreement

ATTACHMENT 2 - Payment Application Instructions

Due: 20th day of the month forecasting thru the end of the month.

Applications for Payment must be submitted through Procore. For further instructions, reference the Procore Documents tab of this project.

Required supporting documentation:

- Partial Lien Waiver – Every month
- Materialmen List – Every month
- Affidavit – Must be notarized – Every month
- Sub-Tier Lien Waivers from previous month – Every month except first billing
- Final Lien Release – Only required for final invoice

Submission of all required documents along with the Applications for Payment will expedite payment.

Any invoice not directly tied to a work order should be submitted to ap@mccowngordon.com.

If you have questions related to the above, contact: ProjectAccounting@McCownGordon.com or ap@mccowngordon.com.

If you have questions related to the location of Accounting documents, please contact the Project Coordinator for this project.

Master Subcontract Agreement

ATTACHMENT 3 - PARTIAL LIEN WAIVER

To: McCownGordon Construction LLC, the Owner of the real estate (the "Realty") identified below, any Lender(s) having any loans secured by the Realty, the Applicant's Contractor (if not the General Contractor) and other parties, if any, having any interest in (hereinafter collectively the "Beneficiaries").

The "Realty" (Owner): _____

The undersigned hereby applies for payment, certifies and waives lien rights, bond rights and all other claims. Payment Request

Amount: \$ _____ by _____
Subcontractor/Supplier Name

Date of last work covered by payment request: _____

Certificate

The undersigned, contingent upon the issuance, final clearance and payment of a valuable consideration of the sum stated above, and being familiar with the penalties for false certification, does hereby certify to the Beneficiaries that:

1. The labor performed and the equipment and material supplied through the date of last work covered by the payment request reference above, represent the actual value of work accomplished under the terms of the undersigned's agreement and all authorized changes thereto concerning work to be performed on the Realty (hereinafter the "Contract").
2. No labor, equipment or materials have been supplied under contracts or agreements with the undersigned, either verbal or written, or any arrangements of any type whatsoever, other than under the Contract and duly authorized and executed change orders, except as specifically noted below:
3. Payment in full, less retainage if any, has been made by the undersigned through the period covered by all prior payments (a) to all of the undersigned's sub-subcontractors, equipment providers, materialmen and laborers, and (b) for all materials and labor used or furnished by the undersigned in connection with the performance of the Contract. The undersigned represents and warrants that it owes no monies or other things of value to any sub-subcontractor, materialman, person or entity for work performed or material supplied through the date of the most recent payment by Owner, except as noted below:
4. The undersigned has complied with Federal, State and Local tax laws, including, without limitation, Income Tax Withholding, Sales Tax, Fringe Benefits owed pursuant to collective bargaining agreements, Social Security, Unemployment Compensation and Worker's Compensation laws, insofar as applicable to the performance of the contract. Specifically, the undersigned has paid, or out of the proceeds of this payment will promptly pay, all sales or use tax due and owing.
5. The undersigned acknowledges and agrees that it is receiving the funds paid in consideration of this Application as a trustee, and said funds will be held in trust for the benefit of all sub-subcontractors, materialmen, suppliers and laborers who supplied work for which the Beneficiaries or their property might be liable, and that the undersigned shall have no interest in such funds until all these obligations have been satisfied in full.

Partial Waiver and Release of Claims

NOW, THEREFORE, the undersigned, upon receipt of the sum of \$ _____ Check# _____ (Payments to date including current payment) for all work through _____ irrevocably and unconditionally releases and waives any and all mechanic's liens or other liens or right to claim any and all mechanic's liens or other liens against the Realty, except as pertains to unpaid retainage. Additionally, the undersigned waives and releases any other claims against the Owner, the property or McCownGordon Construction LLC, its sureties on any bonds, or any other claims of any kind whatsoever in connection with the

Master Subcontract Agreement ATTACHMENT 3 - PARTIAL LIEN WAIVER

Contract and with the Realty. The undersigned shall indemnify and hold the Beneficiaries and their respective successors and assigns harmless against any lien, bond, claims or suits in connection with the materials, labor, and everything else in connection with this Contract.

Subcontractor/Supplier: _____

By: _____

Title: _____

Date: _____

State of _____

County of _____

On this _____ day of _____, 2021, before me, the undersigned, personally appeared _____, _____ of he/she executed _____, known to me to be the person who executed this document and acknowledged to me that the same for the purposes therein stated.

Notary Public in and for said County and State

Commission Expires

McCownGordon PROJECT NUMBER:

McCownGordon PROJECT NAME:

SUBCONTRACTOR/SUPPLIER FIRM:

850 Main St.
Kansas City, Missouri 64105

McCownGordon Project Name/No: _____
 Subcontractor Name: _____
 Progress Invoice No: _____
 Progress Invoice Date: _____

Check here if you are using Sub-Tier Contractors, Equipment Lessors and / or Materialmen on this project
 The following is a list of all of the Sub-tier, Equipment Lessors and Materialmen which are being utilized on this project with the approximate dollar amount for the purchase. A Partial and /or Final Lien Waiver is required from any Sub-Tiers, Equipment Lessors or Materialmen that have a contract amount \geq \$20,000.00. Failure to provide this required documentation will result in the Payment Application being rejected by McCownGordon.

COMPANY NAME	COMPANY ADDRESS	PHONE	CONTRACT AMOUNT (\$)	PAID TO DATE	REQUISITION AMOUNT THIS APPLICATION	BALANCE

COMPLETE THE SECTION BELOW FOR ALL TEMPORARY EQUIPMENT & SCAFFOLDING BROUGHT TO THE PROJECT SITE.

COMPANY NAME	EQUIPMENT TYPE	MAKE / MODEL	SERIAL NUMBER	RENTED or OWNED If Equip. is Rented please attach a copy of the Lien Waiver from the Rental Company	NAME OF RENTAL COMPANY

PLEASE CONTINUE ON TO A SECOND PAGE IF NEEDED.

To be approved by McCown Gordon Construction prior to payment

Project Manager Approval: _____

Date: _____

Project Accountant: _____

Date: _____

Note: This Sub-tier, Equipment Lessor and Materialmen list should be attached with all progress invoices irrespective of whether Sub tier contractors and Materialmen are being utilized or not

Master Subcontract Agreement
ATTACHMENT 5
AFFIDAVIT

AFFIDAVIT FORM

STATE OF _____ }
COUNTY OF _____ }

_____ being duly sworn on his oath deposes and says: that he/she _____
(Owner / Officer) (Title)

of the _____, a Subcontractor of _____
(Company Name) (Type of Work – Scope of Work)

on the _____ located at _____;
(Project Title) (Project Address)

That he is familiar with the provisions for penalties for false certification; that he certifies that all bills for labor, material, services or other things of value including, but not limited to, withholding taxes, social security taxes, unemployment taxes and fringe benefits furnished by or through them before the date of _____ under the Subcontract with McCownGordon Construction, LLC have been fully paid, settled and satisfied; that the companies and parties listed on Standard Attachment 4: Sub-tier Contractor and Materialmen List are his only material suppliers or Trade Partners for this job for the period ending _____; that he understands that McCownGordon Construction, LLC, or anyone on their behalf may and will act and rely upon this instrument in releasing any funds due or owing the said _____.

McCownGordon Construction, LLC relies totally on the accuracy of _____ with respect to the names of the Subcontractors and suppliers and their respective amounts due. If after final payment has been made in good faith to _____ and any additional claims, invoices, bills or liens are presented for unpaid materials, equipment or labor, _____ agrees to indemnify and release McCownGordon Construction, LLC of from any liability associated with said claims, invoices, bills or liens.

Sales tax has been paid on all materials and any other taxes on labor or other services have been accrued and/or remitted to the proper taxing authorities. I further certify that we are registered to do business within the State of this project.

Subscribed, and sworn before me, _____ this _____, day of _____.
(Month/Year)

By: _____
(Subcontractor Representative)

Title: _____

Notary: _____

My Commission Expires: _____

PROJECT NUMBER / NAME: _____ SUBCONTRACTOR FIRM: _____

Master Subcontract Agreement

ATTACHMENT 6 - FINAL LIEN WAIVER

To: McCownGordon Construction LLC, the Owner of the real estate (the "Realty") identified below, any Lender(s) having any loans secured by the Realty, the Applicant's Contractor (if not the General Contractor) and other parties, if any, having any interest in (hereinafter collectively the "Beneficiaries").

The "Realty": _____

The undersigned hereby applies for payment, certifies and waives lien rights, bond rights and all other claims.

Payment Request Amount: \$ _____ by _____
(Subcontractor/Supplier Name)

Date of last work covered by payment request: _____
Certificate

The undersigned, contingent upon the issuance, final clearance and payment of a valuable consideration of the amount stated above, and being familiar with the penalties for false certification, does hereby certify to the Beneficiaries that:

1. The amount requested for labor performed and equipment and material supplied on this Project or in connection with the Property reference above, represent the actual value of work accomplished under the terms of the undersigned's agreement and all authorized changes thereto concerning work to be performed on the Realty (hereinafter the "Contract").
2. No labor, equipment or materials have been supplied under contracts or agreements with the undersigned, either verbal or written, or any arrangements of any type whatsoever.
3. Payment in full has been made by the undersigned through the period covered by all prior payments (a) to all of the undersigned's sub-tier contractors, equipment providers, materialmen and laborers, and (b) for all materials and labor used or furnished by the undersigned in connection with the performance of the Contract. The undersigned represents and warrants that it owes no monies or other things of value to any sub-tier contractor, materialman, person or entity for work performed or material supplied through the date of the most recent payment by Owner, and that the payments that have been or will be made out of this final payment to such persons or firms will fully and completely compensate them for all work in connection with the Project.
4. The undersigned has complied with Federal, State and Local tax laws, including, without limitation, Income Tax Withholding, Sales Tax, Fringe Benefits owed pursuant to collective bargaining agreements, Social Security, Unemployment Compensation and Worker's Compensation laws, insofar as applicable to the performance of the contract.
5. The undersigned acknowledges and agrees that it is receiving the funds paid in consideration of this Application as a trustee, and said funds will be held in trust for the benefit of all sub-tier contractors, materialmen, suppliers and laborers who supplied work for which the Beneficiaries or their property might be liable, and that the undersigned shall have no interest in such funds until all these obligations have been satisfied in full.

Final Waiver and Release of Claims

NOW, THEREFORE, the undersigned acknowledges receipt of prior payments in the sum of \$ _____ (Payments to date), and contingent upon receipt of the sum of \$ _____ (final payment) for all work completed through date of waiver for which the undersigned irrevocably and unconditionally releases and waives any and all mechanic's liens or other liens or right to claim any and all mechanic's liens or other liens against the Realty. Additionally, the undersigned waives and releases any other claims against the Owner, the property or McCownGordon Construction LLC, its sureties on any bonds, or any other claims of any kind whatsoever in connection with this Contract and with the Realty.

Master Subcontract Agreement

ATTACHMENT 6 - FINAL LIEN WAIVER

The undersigned shall indemnify and hold the Beneficiaries and their respective successors and assigns harmless against any lien, bond, claims or suits in connection with the materials, labor, and everything else in connection with this Contract.

Subcontractor/Supplier: _____

By: _____

Title: _____

Date: _____

State of _____

County of _____

On this _____ day of _____, 20____, before me, the undersigned, personally appeared _____ of _____, known to me to be the person who executed this document and acknowledged to me that he/she executed the same for the purposes therein stated.

Notary Public in and for said County and State

Commission Expires

McCownGordon PROJECT NUMBER:

McCownGordon PROJECT NAME:

Subcontractor/Supplier FIRM:

MASTER SUBCONTRACT AGREEMENT

ATTACHMENT 7 – INSURANCE REQUIREMENTS

1. General Requirements. Subcontractor agrees to procure and carry, at its sole cost, until completion and final acceptance of the work under this Agreement, and all applicable warranty periods, (and as a condition precedent to payment), all insurance, with identical limits of liability and scope of coverages, as required of McCownGordon (“Contractor”) in the Prime Contract, or such higher amounts as set forth below. Such insurance will protect Subcontractor (and its consultants, or anyone directly or indirectly employed by any of them or anyone for whose acts they may be liable) from claims arising out of its operations.
 - 1.1. Blanket Coverage: If you are working on multiple projects for Contractor, provide blanket coverage showing maximum limits. Please include in the description box “for any and all projects contracted with McCownGordon Construction, LLC.” If your broker cannot provide a blanket certificate, Contractor will accept a certificate referencing the specific project in lieu of “any and all projects.”
 - 1.2. All insurance policies required herein are to be written by a company duly entered and authorized to transact that class of insurance in the state where the work is to be performed. All policies written by private carriers are to be written by carriers with an A.M. Best rating of "A-VII" or better.
 - 1.3. Contractor reserves the right to request for review certified copies of any and all insurance policies required herein.
 - 1.4. Subcontractor shall furnish an **ACORD Form 25** Certificate of Insurance, evidencing insurance with conditions and coverage as required herein. Furnishing certificates of insurance does not obligate Contractor or its agents to approve, evaluate, or notify Subcontractor of its compliance or non-compliance with the requirements set forth herein. In no way shall receipt of Subcontractor’s certificate of insurance negate, reduce, limit or waive Contractor’s right to enforce the requirements herein. Contractor shall have the right to examine any policy for compliance.
 - 1.5. Subcontractor shall have the Certificate of Insurance completed with the Certificate Holder listed as:

McCownGordon Construction, LLC
c/o IMA Certificate Compliance
1705 17th Street, Suite 100
Denver, CO 80202
 - 1.6. Subcontractor is required to register with IMA Certificate Compliance, Contractor’s certificate compliance system. Subcontractor will receive a registration e-mail from certificatecompliance@imacorp.com. Follow the instructions therein to complete registration. Your broker will be required to upload a certificate on your behalf. Certificates not emailed directly from insurance brokers/agents will not be accepted. Certificates received through the mail will not be accepted. If your broker has questions, they may contact IMA directly at 303-615-7994 or at certificatecompliance@imacorp.com.
2. Subcontractor shall provide the following insurance with coverage and limits as outlined:

MASTER SUBCONTRACT AGREEMENT

ATTACHMENT 7 – INSURANCE REQUIREMENTS

- 2.1. **Commercial General Liability Insurance.** Subcontractor shall obtain and maintain Commercial General Liability Insurance on **ISO form CG 00 01** occurrence form or equivalent for hazards of: (i) construction operation, (ii) subcontractors and sub-subcontractors (iii) independent contractors, (iv) products and completed operations (with completed operations to remain in force for two years after project completion), (v) explosion, collapse and underground, and (vi) contractual liability, including personal injury, death and property damage. **Each Project shall maintain minimum limits of \$1,000,000.00 each occurrence and \$2,000,000.00 general aggregate, and \$2,000,000.00 in product & completed operations and shall include:**
- 2.2. General Aggregate Limit Per Project
- 2.3. Contingent Liability for operations performed by Subcontractor;
- 2.4. Contractual Liability to insure the Indemnification clause contained in this MSA. To the fullest extent permitted by law, with no Contractual Liability Exclusions modifying or deleting the definition of "insured contract" from the unaltered ISO CG 00 01 Edition date 10/01 (CG 24 26 or similar);
- 2.5. **Additional Insured Endorsement:** The Subcontractor shall require its insurance company, to the fullest extent permitted by law, to name and include McCownGordon, the Owner, and others as required by the Prime Contract, as Additional Insured under Subcontractor's Commercial General Liability insurance policy, with primary/non-contributory coverage, to provide coverage to the Additional Insured for liability due to the acts, omissions, negligence or fault of Subcontractor or its employees, agents or representatives. Additional Insured endorsement(s) shall provide that any person or organization that Subcontractor is required to add as an Additional Insured under the Prime Contract shall be included as an Additional Insured. Endorsements limiting coverage to parties with whom Subcontractor has a direct contract with will not be accepted. Coverage shall include both ongoing and completed operations. Vicarious or imputed forms of Additional Insured endorsements will not be accepted. Evidence by endorsement or policy language of additional insured and primary and non-contributory coverage must be provided on forms acceptable to Contractor. Copies of such endorsements must be included with the certificate.
- 2.6. **Blanket Waiver of Subrogation:** Subcontractor agrees to waive all rights of recovery on a blanket basis. If a blanket waiver is not provided, the policy shall be specifically endorsed for this project, naming the Additional Insured parties as set forth above.
- 2.7. The following exclusions are *absolutely prohibited* and shall not be included in Subcontractor's policy if applicable to the work:
 - 2.7.1. No exclusion for "third-party action over suits" or any similar restriction of coverage applicable to claims brought against others by an employee of Subcontractor or its subcontractors.
 - 2.7.2. No damage to Work performed by Subcontractor exclusion (CG 22 94 or similar).
 - 2.7.3. No exclusion for subsidence, which is specifically prohibited for any work involving excavation, soil stabilization, earth retention, concrete, structural steel, landscaping, waterproofing, fire protection and plumbing.
 - 2.7.4. No "residential" exclusion that would void or restrict coverage due to the nature of the Work.
 - 2.7.5. No EIFS exclusion
- 2.8. **Comprehensive Automobile Liability Insurance.**
 - 2.8.1. Subcontractor shall obtain and maintain comprehensive automobile insurance, including contractual liabilities insuring the indemnities set forth in this MSA, covering all owned, non-owned and hired automobiles used in connection with the services or other work hereunder and shall have **minimum bodily injury and property damage limits of \$1,000,000.00 combined single limit per**

MASTER SUBCONTRACT AGREEMENT

ATTACHMENT 7 – INSURANCE REQUIREMENTS

accident. Coverage shall include McCownGordon, the Owner, and others as required by the Prime Contract as additional insured. If blanket coverage is not provided for the Additional Insured, the policy shall be specifically endorsed for this project, naming the Additional Insureds as required under Section 2.1.4. Subcontractor agrees to waive all rights of recovery on a blanket basis. If a blanket waiver is not provided, the policy shall be specifically endorsed for this project, naming the Additional Insured parties. Pollution Liability - Broadened Coverage and MCS-90 endorsement shall be procured when applicable.

2.9. Workers' Compensation and Employer's Liability Insurance.

- 2.9.1. Subcontractor shall obtain and maintain Worker's Compensation Insurance to cover the statutory limits of the Workers' Compensation laws of the state in which the work is to be performed and when applicable to Federal Laws, Voluntary Compensation and Employer's Liability (including occupational disease) coverage **with limits not less than \$1,000,000.00 bodily injury by accident, each accident, \$1,000,000.00 bodily injury by disease, each employee, and \$1,000,000.00 bodily injury by disease policy limit, for all workers on site, regardless of whether a worker is also an owner of Subcontractor.** The Insurance shall provide a waiver of subrogation in favor of Contractor (and Owner if required by the Prime Contract).
- 2.9.2. Where applicable, Workers' Compensation policy coverage shall include the United State Longshore & Harbor Workers' Compensation Act, the Jones Act and an all states endorsement. Workers' Compensation certificates must clearly identify that coverage applies in the state where the project is located.
- 2.9.3. If State Law does not require Employers' Liability Insurance, Subcontractor shall obtain and maintain Employers' Liability Insurance either by endorsing their Workers' Compensation Insurance policy or by endorsing their Commercial General Liability policy with a Stop Gap endorsement.

2.10. Umbrella/Excess Liability Insurance.

- 2.10.1. Subcontractor shall obtain and maintain Umbrella/Excess Liability Insurance. This insurance shall provide excess insurance, over and above the Employers' Liability, Commercial General Liability, and Automobile Liability policies on a following form basis. The limit of liability for this insurance shall be as follows:
- 2.10.2. All Subcontractors shall provide **a minimum of \$2,000,000.00 each occurrence and \$2,000,000.00 in the aggregate;**
- 2.10.3. Subcontractors providing work including but not limited to the following: work that is part of the building envelope, crane operation, caissons, piling, soil stabilization, underpinning, tunneling, dewatering, earth retention systems, excavation, and structural elements of the building shall provide **a minimum of \$5,000,000.00 each occurrence and \$5,000,000.00 in the aggregate.** Higher Umbrella limits may be required by Contractor on a per project basis.

2.11. Professional Liability Insurance.

- 2.11.1. Subcontractor and any of its sub-subcontractors whose scope of work includes any professional services, including but not limited to: design, architecture, engineering, testing, surveying, design/build services, temporary engineering, engineered excavations, shoring systems, post-tension supply, structural pre-cast concrete, or fire protection systems, or whose scope of Work includes the delegated design of any component of their Work, including but not limited to; helical piers, retaining walls, platform scaffold systems, site security, swimming pools, data cabling,

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ATTACHMENT 7 – INSURANCE REQUIREMENTS

window washing equipment, concrete form systems, structural steel, specialized millwork, roofing/waterproofing systems, curtain-wall, mechanical, electrical, or fire alarm systems **must obtain and maintain Professional Liability Insurance**. The policy shall be written with a limit of liability as required in the Prime Contract with a **minimum of \$1,000,000.00 for each claim and aggregate**. Such policy shall continue in force for the applicable State Statute of Limitations and/or Repose in which the Work is located after Substantial Completion of the Work of the entire Project. **Deductibles shall not exceed \$50,000.00**, to be paid by Subcontractor. Higher limits may be required by Contractor on a project-by-project basis. If the Subcontractor subcontracts professional services to an outside firm, the Subcontractor shall also require the outside firm to procure and maintain Professional Liability Insurance in like form and limits, as set forth above or as stated the Prime Contract, **whichever requires the greater coverage or limits of liability, and provide a certificate of insurance evidencing such coverage. The design professional's agreement and insurance shall not include any limitation of liability, except to the extent consequential damages are waived in the Prime Contract.**

2.12. **Pollution Liability Insurance.**

- 2.12.1. Subcontractor and any of its sub-subcontractors providing work related to environmental services, building enclosure systems, plumbing, heating, ventilation, air conditioning, drywall, insulation, building foundations, or any work which could generate Microbial Matter, Mold, Fungi or Bacteria, and any work involving the use of hazardous materials **must obtain and maintain a separate Pollution Liability Insurance policy**. Such insurance shall include coverage for the Hold-Harmless or Indemnification Clause contained in the agreement the Subcontractor has with the Contractor. The policy shall be written with a limit of liability as required in the Prime Contract with a minimum of **\$1,000,000.00 each occurrence and aggregate. Deductibles shall not exceed \$50,000.00, to be paid by the Subcontractor**. Higher limits may be required by Contractor on a project by project basis. Additionally, the Pollution Liability Insurance policy shall name McCownGordon and all other parties as required under the Prime Contract as Additional Insureds.
- 2.12.2. Unless otherwise determined acceptable by Contractor, the policy shall cover the liability of the Subcontractor during the process of construction, removal, storage, encapsulation, transport and disposal of hazardous waste and contaminated soil and/or asbestos abatement. The policy shall include coverage for on-site and off-site bodily injury and loss of damage to, or loss of use of property, directly or indirectly arising out of the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gas, waste materials or other irritants, contaminants or pollutants into or upon the land, the atmosphere or any water course or body of water, whether it be gradual or sudden and accidental, including no exclusion for mold or asbestos. The policy shall also include defense and clean-up costs.

- 2.13. **Equipment Floater.** The Subcontractor shall obtain and maintain coverage for Subcontractor's equipment, tools, and business personal property (whether owned, rented, or borrowed) that are used or are in connection with the Work. Such insurance purchased by the Subcontractor is the only coverage available to the Subcontractor for such equipment. Contractor is not responsible for any equipment, tools, or business personal property of any kind that belongs to Subcontractor. Should the Subcontractor borrow, lease, or rent Contractor's equipment, the policy shall be written to provide coverage against Special Causes of Loss, subject to a **minimum limit of \$50,000.00 per item**, or such amount as Contractor may require and a limit of **\$10,000.00 for Rental Cost**. Coverage shall also include a **minimum limit of**

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\$10,000.00 for pollution cleanup costs. Subcontractor shall be responsible for any and all extra expenses including loss of use, arising out of damage to the equipment caused by the operation, maintenance or use of said equipment, including any deductible to which the insurance may be subject.

2.13.1. **AN INSTALLTION FLOATER IS REQUIRED WHEN SUBCONTRACTOR IS SEEKING PAYMENT OF MATERIALS AND/OR EQUIPMENT STORED BY THE SUBCONTRACTOR AWAY FROM THE JOB SITE AND AWAITING DELIVERY.** This insurance must provide coverage against Special Causes of Loss while the materials and/or equipment are being stored or transported. Contractor and Owner must be included as Loss Payees. The limit of liability shall not be less than the total value of all materials and/or equipment for all projects with Contractor for which payment has been requested.

2.14. Unmanned Aerial Systems Liability Insurance (“Drone” Insurance). If Subcontractor operates any “Unmanned Aerial System” or “UAS,” or hires any such operations through a vendor or sub-subcontractor, Subcontractor shall obtain and maintain liability insurance for operations of the UAS. This liability insurance shall be provided by either a separate aviation policy or an endorsement to the general liability policy required hereunder, provided that the limit of liability shall be **no less than \$1,000,000.00 per occurrence**. Regardless of the form of insurance provided, McCownGordon, Owner, and any other party as required by Contractor shall be included as additional insureds and a waiver of subrogation shall apply in favor of all additional insured parties. Subcontractor shall require compliance with these same terms and conditions of any subcontractor or vendor whom it engages in the use or operation of a UAS.

2.14.1. Subcontractor further acknowledges and agrees that it is solely responsible for the airworthiness of any such aircraft. Subcontractor warrants that, at a minimum, all aircraft will be registered, maintained and operated in accordance with: (a) All applicable manuals inclusive but not limited to the manufacturers and operators maintenance and operations manuals; (b) Federal Aviation Regulations, Mandatory Advisory Circulars or other Airworthiness Directives issued by the FAA; (c) The manufacturer’s airworthiness limitations; (d) Manufacturer or FAA mandated inspection schedules, overhaul schedules, and calendar retirement dates; and (e) Service Bulletins.

2.14.2. For the purposes of this Section, “UAS” includes all elements required for flight including but not limited to ground control stations, data links, dashboards, applications, survey equipment and the unmanned aerial vehicle (“UAV” or “Drone”) of the subject unmanned system. UAS, UAV, and Drone are used interchangeably herein.

2.15. Leased Employee Liability. If Subcontractor leases one or more employees through the use of a payroll, employee management or other company, and workers compensation/employer’s liability coverage is not provided by the payroll, employee, management or other company, then the Subcontractor must directly procure workers’ compensation/employer’s liability insurance. The workers’ compensation and employer’s liability coverage provided to and for the leased employees by the payroll, employee management or other company shall be evidenced and include an Alternate Employer/Leased Employee Endorsement, naming Subcontractor as the alternate employer. The employer’s liability must be scheduled under applicable umbrella (except in state where employer’s liability is unlimited).

2.16. Builders Risk. **It is the responsibility of the Subcontractor to inquire about Builders’ Risk coverage.**

2.16.1. If required by the Prime Contract: McCownGordon and Subcontractor waive all rights against (1) each other and any of their Vendors, agents and employees, each of the other, and (2) the Owner, the Architect, the Architect’s consultants, separate contractors, and any of their subcontractors,

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sub-subcontractors, agents and employees for damages caused by fire or other perils to the extent covered by property insurance provided under the Prime Contract or other property insurance applicable to the Work, except such rights as they may have to proceeds of such insurance held by the Owner as fiduciary. Subcontractor shall require of Subcontractor's agents and employees, by appropriate agreements, written where legally required for validity, similar waivers in favor of other parties enumerated herein. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

2.17. Waiver of Subrogation. To the extent permitted by law, all insurance policies shall include a waiver of any right of subrogation of the insurers thereunder against McCownGordon, the Project Owner, and their assigns, subsidiaries, affiliates, employees, insurers and underwriters. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity has an insurable interest in the property damaged.

2.18. Special Provisions.

2.18.1. Notice of Cancellation. The Subcontractor's insurance policies shall be endorsed to provide Contractor with a **30-day Notice of Cancellation** for reasons other than nonpayment of premium, and a **10-day Notice of Cancellation** for the reason of nonpayment of premium. If any insurer does not make available such endorsement(s), as an alternative, Subcontractor's insurance agent or broker shall provide a written statement that the agent or broker will endeavor to provide the required Notices of Cancellation. Acceptance of such alternative notice is subject to Contractor's sole discretion.

2.18.2. Insurance Primary. All policies of insurance, excluding Professional Liability, required herein shall be written as primary policies, and not in excess of the coverage of the Additional Insured parties outlined in 2.1.4.

2.18.3. No liability policies shall contain a Self-Insured Retention (SIR) or Deductible greater than \$50,000.00 per claim/occurrence, or \$50,000.00 in aggregate. The Subcontractor's General Liability policy shall be amended to exempt the Additional Insured coverage from the SIR or Deductible requirements, or expressly allow payments by the Additional Insured to satisfy the named insured's SIR or Deductible amount.

2.18.4. No Limitation of Liability. The required coverages referred to and set forth herein shall in no way affect, nor are they intended as a limitation on, Subcontractor's liability with respect to its performance of the Work.

2.18.5. All policies shall be maintained for the statute of repose.

2.18.6. The Subcontractor shall be responsible for procuring all policies of insurance consistent with the insurance requirements provided herein. All coverage as required herein may be met through the use of primary and excess policies so long as the total amount of insurance coverage provided is equal to or greater than the amount specified herein.

2.18.7. Approval, disapproval or failure to act by Contractor or their agents regarding any insurance required of Subcontractor shall not relieve Subcontractor of full responsibility for its obligations hereunder, and the bankruptcy, insolvency or denial of coverage by the insurance company shall not exonerate the Subcontractor from liability. In the event any Insurer issues a reservation of

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rights for Contractor as an Additional Insured, Contractor shall be entitled to employ independent counsel at Subcontractor's expense.

2.18.8. No special payments shall be made by Contractor for any insurance that the Subcontractor may be required to carry; Subcontractor agrees that all costs of insurance are included in the Subcontract price and unit prices.

2.18.9. If Subcontractor fails to procure and maintain in force the insurance required herein, Contractor shall have the right, but not the obligation, to obtain such insurance and the Subcontractor shall pay the cost thereof, or the cost thereof may be deducted from amounts otherwise due Subcontractor

2.18.10. Failure to procure and maintain the insurance set forth herein this will constitute a breach of this Agreement, and Subcontractor shall be liable to Contractor for all damages, losses, costs, attorneys' fees and other expenses incurred by Contractor resulting from such breach.

2.18.11. **Sub-Subcontractors' Insurance.** Subcontractor shall require all sub-subcontractors providing equipment, materials or services directly to Subcontractor in connection with Subcontractor's scope of work to obtain, maintain and keep in force coverages in accordance with the requirements set forth herein during the time they are involved in performance of services or other work hereunder. But for Parties as required under 2.1.4 being listed as additional insured under such sub-subcontractor's applicable insurance, the types and limits of insurance required of the sub-subcontractor may vary based on the work to be performed by sub-subcontractor. The insurance carried by the sub-subcontractor shall not reduce or eliminate any of the Subcontractor's contractual responsibilities for the work or negligence of sub-subcontractor hired by Subcontractor. Subcontractor shall obtain certificates of insurance and additional insured endorsements evidencing such coverage and provide Contractor with such certificates and endorsements, if requested. Subcontractor shall not be excused from its obligations to cause such sub-subcontractors to meet the insurance coverage requirements set forth herein unless Contractor waives such requirement in writing. Such waiver shall be effective only as to such requirements and for such sub-subcontractor specifically identified in such writing.

2.19. **Suppliers.** Material Suppliers making direct deliveries to the Project Site must meet the below requirements and submit a Certificate of Insurance with Contractor, Owner (and other parties, if and as required by the Prime Contract) included as Additional Insureds. If utilizing a third-party carrier please submit a blanket copy of their standard Certificate of Insurance for our records.

Automobile coverage of the standard 1,000,000

State Statutory workers' compensation coverage

General Liability of 1,000,000 as listed above. (Modification of limits may be necessary)

The Certificate you provide MUST comply with these requirements. The Certificate of Insurance shall be provided to McCownGordon Construction with the executed agreement. NO SUBCONTRACTOR SHALL BE ALLOWED TO ENTER A MCCOWNGORDON JOBSITE WITHOUT A COMPLIANT CERTIFICATE OF INSURANCE.

Trade Partner Insurance Requirements

DIVISION 2								
Building Demolition			X		X		X	
Selective Demolition			X	X			X	
DIVISIONS 31-32								
Earthwork			X		X		X	
Silt Fence				X			X	
Tunneling/Boring			X		X		X	X
Soil Stabilization			X		X		X	X
Dewatering			X		X		X	
Excavation			X		X		X	
Asphalt			X		X		X	
Concrete Paving			X	X			X	
Site Utilities			X		X		X	
DESIGN								
Professional Scopes/Surveyors			X	X				X

GENERAL NOTES:

1. Auto, worker's compensation, and employer's liability insurance are required in addition to those policies indicated in the above table.
2. Underlying commercial general liability requirements may be provided under a combination of the underlying and blanket policy so long as the amount and coverage of insurance required to be carried is not diminished.
3. In the event of a conflict between the limits stated herein, the Master Subcontractor Agreement, the prime agreement, or any other contract documents, the more stringent requirement(s) shall control.

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ATTACHMENT 8 - EEO REQUIREMENTS

Subcontractor shall comply with all laws protecting the rights of its employees and potential employees, including Equal Employment Opportunity laws (specifically, Executive Order 11246 September 24, 1965) and to K.S.A. 44-1030. Unless exempted by rules, regulations, or orders of the Secretary of Labor, issued pursuant to Section 204 of the Executive Order, Subcontractor specifically agrees as follows:

- (1) Subcontractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. Subcontractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates or pay or other forms of compensation; and selection for training, including apprenticeship. Subcontractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth its provisions of this nondiscrimination clause.
- (2) Subcontractor will, in all solicitations or advertisements for employees placed by or on behalf of Subcontractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- (3) Subcontractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or worker's representative of Subcontractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) Subcontractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

Pursuant to K.S.A. 44-1030, Subcontractor specifically agrees as follows:

- (1) Subcontractor shall observe the provisions of the Kansas Act Against Discrimination and shall not discriminate against any person in the performance of work under the Subcontract because of race, religion, color, sex, disability, national origin or ancestry;
- (2) in all solicitations or advertisements for employees, Subcontractor shall include the phrase, "equal opportunity employer," or a similar phrase to be approved by the Kansas human rights commission;
- (3) if Subcontractor fails to comply with the manner in which Subcontractor reports to the Kansas human rights commission in accordance with the provisions of K.S.A. 44-1031 and amendments thereto, Subcontractor shall be deemed to have breached the Subcontract and it may be canceled, terminated or suspended, in whole or in part, by MGCC or the contracting agency; and
- (4) if Subcontractor is found guilty of a violation of the Kansas act against discrimination under a decision or order of the commission which has become final, Subcontractor shall be deemed to have breached the Subcontract and it may be canceled, terminated or suspended, in whole or in part, by McCownGordon or the contracting agency.

EEO COMPLIANCE CERTIFICATE

Subcontractor certifies to McCownGordon Construction LLC ("Contractor") that throughout the period covered Subcontractor will comply with all applicable provisions of Executive Order 11246 as revised from time to time and as implemented by Title 41 of the Code of Federal Regulations, particularly Chapters 1, 50 and 60, as the same may be amended from time to time.

Subcontractor further certifies and agrees that each of the following provisions is made a part of each subcontract between Subcontractor and Contractor, entered, unless, and to the extent that, because of dollar amount or otherwise, the subcontract is not required to contain the provision:

I. NON-DISCRIMINATION IN EMPLOYMENT

- (a) The Subcontractor will recruit and hire employees who are disabled veterans, Vietnam era veterans, and individuals with handicaps and will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Subcontractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to status such as disabled veterans, Vietnam era veterans, handicapped individuals or because of race, color, religion, sex or national origin. Such action shall include, but not be limited to, the following employment, upgrading demotion, or transfer, recruitment or recruitment advertising,

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ATTACHMENT 8 - EEO REQUIREMENTS

layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Subcontractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this non-discrimination clause.

(b) The Subcontractor will, in all solicitations or advertisements for employees placed by or on behalf of the Subcontractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

(c) The Subcontractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract of understanding, a notice to be provided by the agency contracting officer, advising the labor union or worker's representative if the Subcontractor's commitments under Equal Opportunity Clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Subcontractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and the rules, regulations and relevant orders of the Secretary of Labor.

(e) The Subcontractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(f) In the event of the Subcontractor's noncompliance with the Equal Opportunity Clause of this subcontract or with any part of such rules, regulations or orders, this subcontract may be canceled, terminated or suspended in whole or in part and the Subcontractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rules, regulations or orders of the Secretary of Labor, or as otherwise provided by law.

(g) The Subcontractor will include the provisions of paragraphs (a) through (g) in every subcontract unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provision will be binding upon each Subcontractor or vendor. The Subcontractor will take such action with respect to any subcontract as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event the Subcontractor becomes involved in, or is threatened with litigation with a Subcontractor or vendor as a result of such direction by the contracting agency, the Subcontractor may request the United States to enter into such litigation to protect the interests of the United States.

II. CERTIFICATION OF NONSEGREGATED FACILITIES

Subcontractor does not, and during the performance of each subcontract with Contractor, will not maintain or provide for his employees and segregated facilities at any of his establishments, and does not and will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. Subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this certificate. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color or national origin, because of habit, local custom or otherwise. He further agrees that (except where he has obtained identical certifications from proposed Subcontractors for specific time periods) he will obtain identical certifications from proposed Subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause; that he will retain such certifications in his files, and that he will forward the following to such proposed Subcontractors (except where the proposed Subcontractors have submitted identical certifications for specific time periods): NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES. A Certification of Nonsegregated Facilities, as required by Chapter 60-1.8 of Title 41 of the Code of Federal Regulations must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semi-annually or annually).

NOTE: Whoever knowingly or willfully makes any false, fictitious or fraudulent representations may be liable for criminal prosecutions under 18 U.S.C. 1001.

III. FILING CERTIFICATE

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ATTACHMENT 8 - EEO REQUIREMENTS

Subcontractor has failed or will file the necessary compliance reports, including Standard Form 100 (EEO-1) where and when required by law and applicable regulations, including, without limitation, the Civil Rights Act of 1964 as amended by the Equal Employment Opportunity Act of 1972 and regulations in 41 CFR 60-1.7. Subcontractor has required and will require similar certification and filing from its non-exempt suppliers.

IV. AFFIRMATIVE ACTION CERTIFICATE

Subcontractor has developed, is maintaining and will continue to maintain the written affirmative action compliance program to guarantee equal employment opportunity to minority groups required by applicable law and regulations, including, without limitation, those appearing in 41 CFR 60-1.40. Subcontractor has required and will require similar certification from each of its non-exempt suppliers.

V. UTILIZATION OF SMALL BUSINESS CONCERNS AND DISADVANTAGED SMALL BUSINESS CONCERNS

If Contractor is required to utilize small business concerns or disadvantaged small business concerns by law or by contract, Subcontractor agrees to provide any information requested by Contractor that would be relevant to the issue of whether or not Subcontractor meets the criteria for these small business concerns. If required by an applicable Prime Contract, Subcontractor further agrees to comply with the obligations imposed by 13 CFR §125.9 and FAR §52.219-8, which clauses are incorporated herein by reference.

Executed this _____ day of _____, 20____ by:

Firm/Company Name: _____

Name of Authorized Representative: _____

Signature of Authorized Representative: _____

Title of Authorized Representative: _____

All inquiries regarding this matter should be directed to Nancy Whitworth, Equal Employment Opportunity/Affirmative Action Representative, McCown Gordon Construction, LLC, 850 Main St. Kansas City, Missouri 64105. Telephone:816-960-1111.

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ATTACHMENT 9 - SAFETY REQUIREMENTS

INTRODUCTION

McCownGordon Construction, LLC ("Contractor") has established several safety practices involving our Subcontractors. These are listed below. If you are a new Subcontractor, this information will be enlightening; if you are an established Subcontractor, this information will be a review. This attachment is not all-encompassing as it relates to the OSHA 1926 Standards. Rather, it is a tool to inform you and your employees of our company policies as they relate to safety, to avoid any misunderstanding prior or during construction.

HEAD PROTECTION (HARD HATS)

Contractor requires that all personnel wear OSHA Approved head protection while on our project sites. The only exceptions to this policy are operators inside equipment that has adequate overhead protection, and tenant finish work deemed acceptable by the McCownGordon Safety representative. In most cases, if there is an overhead or side impact exposure to the individual's head, our Supervisor will require hard hats. It is a requirement that this information is conveyed to your Supervisors and employees prior to project mobilization.

WORK ATTIRE

Subcontractors' employees are required to wear appropriate work attire consisting of long pants, shirts, and work boots. Shorts, short pants, tank tops and tennis shoes are not allowed to be worn by anyone entering the project work zone. Safety glasses or the appropriate personnel protective equipment in accordance with the 1926 Standards are also required.

FALL PROTECTION

Pursuant to the 1926 OSHA-Subpart M for fall protection, Contractor strongly advises all crafts working above 6' to review the performance of their work in accordance with the above standard, to plan accordingly, to enact, establish, or construct the proper fall protection system necessary for your scope of work. This planning should take place prior to starting work. If you are not familiar with Subpart M of the 1926 Standards contact our Safety Director Brian Schrader (bschrader@mccowngordon.com) for assistance. This standard involves several aspects of employee training that are imperative to your work.

Steel erectors are required to follow OSHA 1926 subpart M in lieu of subpart R when related to fall protection requirements. All workers will be tied off 100% of the time when there is a change in elevation of 6 feet or more.

Subcontractors using Self Retracting Lifelines (SRL) are required to mount/anchor according to manufacturing specifications. Only leading edge SRL's can be placed on the same walking/working surface as the employee. For example, setting steel with no structure above the worker or laying decking. All non-leading edge retractable's cannot be used for fall arrest unless mounted overhead per manufacturers specifications.

NON-COMPLIANCE

On each project, during or after a safety inspection conducted by Contractor's safety department or their designate, your supervisor or employee will be notified of any items, situations, or work practices that fail to comply with the 1926 Safety Standards, as we interpret or have knowledge of them. Upon discovery of such non-compliance, Contractor will request corrective action within a reasonable time, under which Subcontractor must bring the non-compliant item, situation or work practice into compliance, to Contractor's approval. Such reasonable time will depend on the severity of the situation. Severe or life-threatening situations must be corrected immediately. In the event that the Subcontractor field supervision does not produce satisfactory

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ATTACHMENT 9 - SAFETY REQUIREMENTS

results, we will contact the Subcontractor's main office and request assistance. In the event that both notifications fail to correct the situation, Contractor reserves the right to remove the employee(s) involved and/or correct the situation at Subcontractor's expense.

HAZARD COMMUNICATION STANDARD

The Hazardous Communication Standard (Hazcom) requires that employers on multi-employer project sites disseminate Hazardous material information that each craft may be using to everyone on the project. Contractor requires that all Subcontractors upload a copy of their company's Hazcom program with SDS information in our project trailer. By doing so, we can establish a common information center; but it each Subcontractor remains responsible for informing their employees of the location of the various Hazcom programs. Contractor does not take any responsibility for updating, changing, reviewing, or training Subcontractor's employees as it relates to such Hazardous material information.

AIR CONTAMINANTS AND MONITORING

When powered equipment, other than electrical, is utilized inside an enclosed area, continuous air monitoring must occur, and documentation of air results must be maintained and submitted to Contractor on a daily basis. This includes the operation of equipment such as diesel-powered welding machines, gas generators, diesel-powered forklifts, chop saws, etc. Each Subcontractor and its sub-tier contractors are responsible for providing such air monitoring.

There shall be NO "dry" cutting, grinding, large bore drilling of concrete, CMU or other silica containing material. All dust containing silica must be collected in accordance with applicable NIOSH, ANSI, OSHA and governing Authorities having jurisdiction.

Subcontractor and its sub-tier contractors are responsible for ensuring any operations generating dust shall use necessary means to control the dust and minimize and/or eliminate exposures. This includes haul roads, grinding, drilling, chipping, hammering, sawing, polishing, cutting operations, etc.

Subcontractors and sub-tier contractors will be responsible for ensuring appropriate PPE for any exposures or supply the Contractor with Negative Exposure Assessments confirming exposure limits are below those established by OSHA, NIOSH, EPA or other governing authorities for the specific exposure. This includes, but is not limited to, nuisance dust and silica from operations, drilling and cutting operations, metal fume and hexavalent chromium from hot work operations, etc.

Nuisance Dust in individual employee work locations; Subcontractors and its subcontractors will be responsible for ensuring that any operations generating dust shall use necessary means to control the dust and minimize or remove exposures. The GC/CM reserves the right to require the employer of an employee to perform additional air monitoring, if the GC/CM determines additional air monitoring is recommended. When applicable, sweeping compound shall be used to control nuisance dust from daily sweeping of working surfaces.

If required by the Prime Contract, all Subcontractors and their sub-tier contractors must be certified for renovation, repair, and painting as required in the EPA RRP Lead Base Paint regulation.

All workers are required to use Lead Safe Methods and be certified (and must provide such certifications to Contractor) when working around painted surfaces that are pre-1973. Adherence to OSHA 29 CFR 1926.16 will be required by all Subcontractors and their sub-tier contractors. All Subcontractors are responsible for training

Master Subcontract Agreement

ATTACHMENT 9 - SAFETY REQUIREMENTS

their employees as specified under OSHA 29 CFR 1926.62.

OSHA INSPECTIONS

In the event of an OSHA inspection, Contractor's policy does not require a warrant to enter the project site. Since 1994 the general contractor, in most instances, has been viewed as the responsible party on the project site, as far as OSHA is concerned. This theory is applied under the multi-employer worksite ruling, which means we can be fined for hazards that are created by Subcontractors even though we physically do not have employees exposed to the hazard. Therefore, we find it necessary to inform Subcontractors that if any violations are found during an OSHA inspection in which Contractor is cited under the multi-employer worksite ruling, we will seek financial restitution against the Subcontractor.

CRANE REQUIREMENTS

Contractors will be required to comply with 1926 OSHA- Subpart CC. Contractors utilizing cranes on McCownGordon site must submit the following documentation prior to crane mobilization: operator's CCO, rigging and signal person certifications from all employees performing these job duties, operator's crane specific evaluations, crane's annual inspection, crane lift plan, etc. Contractor reserves the right to ask for additional third-party crane inspection, especially when critical picks are being conducted.

DOCUMENTATION REQUIREMENTS

Prior to start of work, each Subcontractor must submit: a site-specific safety program, a hazard communication program, inventory of chemicals/hazardous materials to be used on jobsite, copies of safety data sheets, a silica program for contractors using or working with silica materials, documentation of training specific to task/work, a project orientation form, and a competent person form. Subcontractor must submit a toolbox talk specific to its scope of work and Subcontractor safety inspections on a weekly basis throughout the duration of its work. For high hazard work and unusual operations, a Method of Procedures form (or equivalent) must be completed by Subcontractor.

MISSOURI SAFETY TRAINING REQUIREMENTS

If the Project is a public works project in the State of Missouri, Subcontractor and its sub-tier contractors must provide a 10-hour OSHA construction safety program or similar program approved by the Missouri Department of Labor and Industrial Relations. Such program must be completed on site by all employees within sixty (60) days of beginning work on the Project, pursuant to Section 292.675, Revised Statutes of Missouri. Subcontractors and its sub-tier contractors that fail to comply with this requirement will pay to the public owner a \$2,500 fine, plus \$100 per day for each day, per employee without training. Owner and Contractor may withhold such penalties from payments due to Subcontractor. To ensure compliance with this requirement, Subcontractor and its sub-tier contractors will be required to provide such training and complete an affidavit attesting to its compliance as required by statute.

SAFETY GUIDELINES/REQUIREMENTS

Subcontractors are required to comply with jobsite specific safety requirements and programs, and any safety rules outlined by the Owner. Subcontractors must conduct site safety inspections and crew safety meetings, at least once per week. These inspections and meetings must be documented, and copies of such documentation must be made available to Contractor upon request.

Master Subcontract Agreement

ATTACHMENT 9 - SAFETY REQUIREMENTS

THE ULTIMATE GOAL

Of utmost importance is injury prevention and to limit sources of potential liability. This can be accomplished by planning ahead, enacting a high caliber safety program, empowering employees to enforce the program, and communicating collaboratively together, so that we can construct a quality project in the safest, most efficient manner.

Subcontractor can contact McCownGordon Construction's Safety Department at its convenience for assistance. The advice given by our Safety Department is as we interpret the standards or as we view the loss control issues. This service is free of cost and exists to help reduce employee injuries. Please feel free to reach out at any time with questions.

We thank you for your cooperation.

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 20 12.1 – FORM OF AGREEMENT BETWEEN OWNER AND
CONTRACTOR

 **AIA** Document A133™ – 2009

**Standard Form of Agreement Between Owner and Construction Manager as
Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed
Maximum Price**

AGREEMENT made as of the 17th day of August in the year Two Thousand Twenty
(In words, indicate day, month and year.)

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

Platte County R-3 School District
998 Platte Falls Road
Platte City, Missouri 64079

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

McCownGordon Construction, LLC
850 Main Street
Kansas City, MO 64105

for the following Projects:*(Name and address or location)*

New Middle School
Renovation of Barry School
Renovation of Pathfinder Elementary
Districtwide Facility Improvements

The Architect:
(Name, legal status and address)

Hollis + Miller Architects
1828 Walnut Street
Kansas City, MO 64108

And

DLR Group
7290 W. 133rd Street
Overland Park, KS 66213

The Owner's Designated Representative:
(Name, address and other information)

Jay Harris
Executive Director of Operations
Platte County R-3 School District
998 Platte Falls Road
Platte City, Missouri 64079

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 A201™–2007, 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.



The Construction Manager's Designated Representative:
(Name, address and other information)

Luke Deets
Market Leader
McCownGordon Construction, LLC
850 Main Street
Kansas City, MO 64105
Email: LDeets@McCownGordon.com

The Architect's Designated Representative:
(Name, address and other information)

Michelle Chavey
Hollis + Miller Architects
1828 Walnut Street
Kansas City, MO 64108

And

Kevin Greischar
DLR Group
7290 W. 133rd Street
Overland Park, KS 66213

The Owner and Construction Manager agree as follows.

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TABLE OF ARTICLES

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- 2 CONSTRUCTION MANAGER'S RESPONSIBILITIES**
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- 4 COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES**
- 5 COMPENSATION FOR CONSTRUCTION PHASE SERVICES**
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EXHIBIT A GUARANTEED MAXIMUM PRICE AMENDMENT

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 The Contract Documents

The Contract Documents consist of this Agreement, Conditions of the Contract (General Conditions, as amended), Drawings, Specifications, Addenda issued prior to the execution of this Agreement, all sections of the Project Manual, other documents listed in this Agreement, Modifications issued after execution of this Agreement, the proposal signed by the Construction Manager, the request for proposals, and Contractor's proof of payment, and performance bonds and proof of insurance, all of which form the Contract and are as fully a part of the Contract as if attached to this Agreement or repeated herein. Upon the Owner's acceptance of the Construction Manager's Guaranteed Maximum Price proposal, the Contract Documents will also include the documents described in Section 2.2.3 and identified in the Guaranteed Maximum Price Amendment and revisions prepared by the Architect and furnished by the Owner as described in Section 2.2.8. 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.

§ 1.1.1 Any revision, amendment, or modification to this Agreement shall be valid, binding, and enforceable only if said revision, amendment or modification is made conspicuous by being underlined, lined-through, or highlighted in this Agreement signed by Contractor and the authorized representative of Owner's Board of Education. In the event of a conflict, the terms and conditions as contained in this Agreement, as amended, shall take precedence over the terms and conditions contained in the General Conditions, as amended, and the terms and conditions in the General Conditions, as amended, shall take precedence over all other terms and conditions contained in the other Contract Documents. If the Request for Proposals and the Proposal are included in the Contract Documents, then the Request for Proposals shall take precedence over the Proposal, unless specifically agreed otherwise herein.

§ 1.1.2 The Board of Education, by majority vote, is the only representative of the Owner, a school district, having the power to enter into or amend a contract, to approve changes in the scope of the Work, to approve and execute a Change Order or Construction Change Directive modifying the Guaranteed Maximum Price to agree to an extension to the date of Substantial or Final Completion, or to terminate a contract.

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§ 1.2 Relationship of the Parties

The Construction Manager accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Construction Manager's skill and judgment in furthering the interests of the Owner; to perform the Work defined in the Contract Documents, in accordance with the Owner's requirements and construction cost limitations, as approved by the Owner's Board of Trustees as set forth in the Contract Documents; to furnish efficient construction administration, management services and supervision; to furnish construction services, if allowed in accordance with law 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 or approve, in a timely manner, information required by the Construction Manager and to make payments to the Construction Manager in accordance with the requirements of the Contract Documents. The Owner and Construction Manager shall endeavor to promote harmony and cooperation among the Owner, Architect, Construction Manager, Construction Manager's subcontractors, and other persons or entities employed by the Owner for the Project.

§ 1.3 General Conditions

For the Preconstruction Phase, AIA Document A201™-2017, General Conditions of the Contract for Construction, shall apply only as specifically provided in this Agreement. For the Construction Phase, the general conditions of the contract shall be as set forth in A201-2017, which document is incorporated herein by reference. The term "Contractor" as used in A201-2017 shall mean the Construction Manager.

ARTICLE 2 CONSTRUCTION MANAGER'S RESPONSIBILITIES

The Construction Manager's Preconstruction Phase responsibilities are set forth in Sections 2.1 and 2.2. The Construction Manager's Construction Phase responsibilities are set forth in Section 2.3. The Owner and Construction Manager may agree, in consultation with the Architect, for the Construction Phase to commence prior to completion of the Preconstruction Phase, in which case, both phases will proceed concurrently. The Construction Manager shall identify a representative authorized to act on behalf of the Construction Manager with respect to the Project.

§ 2.1 Preconstruction Phase

§ 2.1.1 The Construction Manager shall provide a preliminary evaluation of the Owner's program, schedule and construction budget requirements, each in terms of the other.

§ 2.1.2 Consultation

The Construction Manager shall schedule and conduct meetings with the Architect and Owner to discuss such matters as procedures, progress, coordination, and scheduling of the Work. The Construction Manager shall advise the Owner and the Architect on proposed site use and improvements, selection of materials, and building systems and equipment. The Construction Manager shall also provide recommendations consistent with the Project requirements to the Owner and Architect on constructability; availability of materials and labor; time requirements for procurement, installation and construction; which shall satisfy Owner's time requirements and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions.

§ 2.1.2.1 During the Preconstruction Phase, the Construction Manager shall review the Contract Documents to ascertain whether the components of the plumbing, electrical and mechanical systems may be constructed without interference with each other, or with the structural or architectural components of the Project, or with existing systems. In the event that conflicts between the systems are discovered, the Construction Manager shall promptly notify the Owner and Architect in writing.

§ 2.1.2.2 Notwithstanding any provision of the General Conditions of the Contract for Construction to the contrary, the Construction Manager shall not be entitled to additional compensation for any delay or disruption to the Work arising from any conflict between the mechanical, electrical, and plumbing systems with each other, or with the structural or architectural components of the Work, or with existing systems, if such conflicts should have been discovered during the Construction Documents Phase by the Construction Manager through the exercise of reasonable diligence, and the Owner and Architect were not informed of such conflicts as required by subparagraph 2.1.2.1. This provision shall apply only with respect to conflicts appearing in the Drawings and Specifications provided for the Construction Manager's review prior to proposal of a Guaranteed Maximum Price.

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§ 2.1.3 When Project requirements in Section 3.1.1 have been sufficiently identified, the Construction Manager shall prepare and periodically update a Project schedule for the Architect's review and the Owner's acceptance. The Construction Manager shall obtain the Architect's approval for the portion of the Project schedule relating to the performance of the Architect's services. The Project schedule shall coordinate and integrate the Construction Manager's services, the Architect's services, other Owner consultants' services, and the Owner's responsibilities and identify items that could affect the Project's timely completion. The updated Project schedule shall include the following: submission of the Guaranteed Maximum Price proposal; components of the Work; times of commencement and completion required of each Subcontractor; ordering and delivery of products, including those that must be ordered well in advance of construction; dates of Substantial Completion and Final Completion and the occupancy requirements of the Owner. If updated Project schedules indicate that previously approved schedules may not be met, then the Construction Manager shall make appropriate recommendations to the Owner and Architect and, shall implement necessary corrective action.

§ 2.1.4 Phased Construction

The Construction Manager shall provide recommendations with regard to accelerated or fast-track scheduling, procurement, or phased construction. The Construction Manager shall take into consideration cost reductions, cost information, constructability, provisions for temporary facilities and procurement and construction scheduling issues. The Construction Manager shall make recommendations to the Owner and Architect regarding the phased issuance of Drawings and Specifications so as to facilitate the proposal of a Guaranteed Maximum Price when all elements of the Drawings and Specifications are at least ninety percent complete or permit ready whichever is more complete, unless mutually agreed otherwise by the Architect, Owner and the Construction Manager

§ 2.1.5 Preliminary Cost Estimates

§ 2.1.5.1 Based on the preliminary design and other design criteria prepared by the Architect, the Construction Manager shall prepare preliminary estimates of the Cost of the Work or the cost of program requirements using area, volume or similar conceptual estimating techniques for the Architect's review and Owner's approval. If the Architect or Construction Manager suggests alternative materials and systems, the Construction Manager shall provide cost evaluations of those alternative materials and systems.

§ 2.1.5.2 As the Architect progresses with the preparation of the Schematic Design, Design Development and Construction Documents, the Construction Manager shall prepare and update, at appropriate intervals agreed to by the Owner, Construction Manager and Architect, estimates of the Cost of the Work of increasing detail and refinement and allowing for the further development of the design until such time as the Owner and Construction Manager agree on a Guaranteed Maximum Price for the Work. Such estimates shall be provided for the Architect's review and the Owner's approval. The Construction Manager shall inform the Owner and Architect when estimates of the Cost of the Work exceed the latest approved Project budget and make recommendations for corrective action and/or cost reductions, including but not limited to, substitution of materials or revisions or alterations to the Design Development Documents or the Construction Documents, to bring the Project within the Owner's budget. In the event that the quality or scope identified in the estimates are unacceptable or exceed the Owner's identified budget, the Construction Manager shall work with the Architect to develop options that are acceptable to Owner and are within the Owner's budget.

§ 2.1.6 Subcontractors and Suppliers

The Construction Manager shall develop bidders' interest in the Project.

§ 2.1.7 The Construction Manager shall prepare, for the Architect's review and the Owner's acceptance, a procurement schedule for items that must be ordered well in advance of construction. The Construction Manager shall expedite and coordinate the ordering and delivery of materials that must be ordered well in advance of construction. If the Owner agrees to procure any items prior to the establishment of the Guaranteed Maximum Price, the Owner shall procure the items on terms and conditions acceptable to the Construction Manager. Upon the establishment of the Guaranteed Maximum Price, the Owner shall assign all contracts for these items to the Construction Manager and the Construction Manager shall thereafter accept responsibility for them.

§ 2.1.8 Extent of Responsibility

The Construction Manager shall exercise reasonable care in preparing schedules and estimates. The Construction Manager, however, does not warrant or guarantee estimates and schedules except as may be included as part of the Guaranteed Maximum Price. The recommendations and advice of the Construction Manager concerning design

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alternatives and potential cost savings shall be subject to the review and approval of the Architect, Owner and the Owner's professional consultants. The Construction Manager is not required to ascertain that the Drawings and Specifications are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Construction Manager shall promptly report to the Architect and Owner any nonconformity discovered by, or that reasonably should have been discovered by, or made known to the Construction Manager as a request for information in such form as the Architect may require.

§ 2.1.9 Notices and Compliance with Laws

The Construction Manager shall comply with applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to its performance under this Contract, and with equal employment opportunity programs, and other programs as may be required by governmental and quasi-governmental authorities for inclusion in the Contract Documents.

§ 2.2 Guaranteed Maximum Price Proposal and Contract Time

§ 2.2.1 When all elements of the Construction Documents are at least ninety percent (90%) complete, the Construction Manager shall prepare a Guaranteed Maximum Price proposal for the Owner's review and acceptance. The Guaranteed Maximum Price in the proposal shall be the sum of the Construction Manager's estimate of the Cost of the Work, including contingencies described in Section 2.2.4, and the Construction Manager's Fee. If any Guaranteed Maximum Price proposal submitted to the Owner exceeds previously approved estimates or the Owner's budget, then the Construction Manager shall make appropriate recommendations to the Owner and Architect for cost reductions, including but not limited to, substitution of materials or revisions or alterations to the Construction Documents, to bring the Project within the Owner's budget. In the event that the quality or scope identified in the proposal are unacceptable or exceed the Owner's identified budget, the Construction Manager shall work with the Architect to develop options that are acceptable to Owner, are within the Owner's budget, and meet the Owner's requirements for dates of Substantial Completion and Final Completion. The Construction Manager may propose separate Guaranteed Maximum Prices for separate Works within the Project, as schedules and efficiencies dictate. The Construction Manager will work with the Architect to achieve a Guaranteed Maximum Price that is fully acceptable to Owner and is within the Owner's budget for the Work and for the Project.

§ 2.2.2 To the extent that the Drawings and Specifications are anticipated to require further development by the Architect, the Construction Manager shall provide in the Guaranteed Maximum Price for such further development consistent with the Contract Documents and reasonably inferable therefrom. Such further development does not include such things as changes in scope, systems, kinds and quality of materials, finishes or equipment, all of which, if required, shall be incorporated by Change Order.

§ 2.2.3 The Construction Manager shall include with the Guaranteed Maximum Price proposal a written statement of its basis, which shall include the following:

- .1 A list of the Drawings and Specifications, including all Addenda thereto, and the Conditions of the Contract;
- .2 A list of the clarifications and assumptions made by the Construction Manager in the preparation of the Guaranteed Maximum Price proposal, including assumptions under Section 2.2.2, to supplement the information provided by the Owner and contained in the Drawings and Specifications;
- .3 A statement of the proposed Guaranteed Maximum Price, including a statement of the estimated Cost of the Work organized by trade categories or systems, allowances, contingency, general conditions, and the Construction Manager's Fee;
- .4 The anticipated date of Substantial Completion upon which the proposed Guaranteed Maximum Price is based; and
- .5 The date of Final Completion upon which the proposed Guaranteed Maximum Price is based, which date shall be not more than thirty (30) days after the date of Substantial Completion.

The Guaranteed Maximum Price proposal may not be based in any part on any subcontract or material supply contract which would require the Owner to compensate the Construction Manager on other than a maximum price basis.

§ 2.2.4 In preparing the Construction Manager's Guaranteed Maximum Price proposal, the Construction Manager shall include its contingency for the Construction Manager's exclusive use to cover those costs considered reimbursable as the Cost of the Work but not included in a Change Order. Any unforeseeable causes or unanticipated details which exceed the Construction Contingency shall be borne by the Construction Manager at the Construction

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Manager's sole risk. All savings will accrue and be available for use, only as detailed above, by the Construction Manager until the Construction Manager's final accounting. In the final accounting, all supporting documentation for all uses of the Construction Contingency shall be provided to Owner. Upon final accounting, all remaining monies in the Construction Contingency shall accrue to the Owner. The Guaranteed Maximum Price shall also include a separately identified contingency amount, an "Owner's Contingency," which is defined as a contingency fund within the Guaranteed Maximum Price established by the Owner for the Owner's exclusive use. Monies from the Owner's Contingency may be spent in the discretion of the Owner's Representative and without additional Board of Trustees approval, but with subsequent notice to Owner's Board of Trustees. Any unused Owner's Contingency shall accrue to the Owner.

§ 2.2.5 The Construction Manager shall meet with the Owner and Architect to review the Guaranteed Maximum Price proposal. In the event that the Owner and Architect discover any inconsistencies or inaccuracies in the information presented, they shall promptly notify the Construction Manager, who shall make appropriate adjustments to the Guaranteed Maximum Price proposal, its basis, or both. As soon as feasible after the Architect's preliminary approval of the Construction Manager's proposed Guaranteed Maximum Price, the Construction Manager will prepare the Amendment forms and return them to the Owner and Architect for review and the Owner for signature.

§ 2.2.6 If the Owner notifies the Construction Manager that the Owner has accepted the Guaranteed Maximum Price proposal in writing before the date specified in the Guaranteed Maximum Price proposal, the Guaranteed Maximum Price proposal shall be deemed effective without further acceptance from the Construction Manager. Following acceptance of a Guaranteed Maximum Price Amendment, the Owner and Construction Manager shall execute the Guaranteed Maximum Price Amendment amending this Agreement, a copy of which the Owner shall provide to the Architect. The Guaranteed Maximum Price Amendment shall set forth the agreed upon Guaranteed Maximum Price with the information and assumptions upon which it is based.

§ 2.2.7 The Construction Manager shall not incur any cost to be reimbursed as part of the Cost of the Work prior to the commencement of the Construction Phase, unless the Owner provides prior written authorization for such costs.

§ 2.2.8 The Owner shall authorize the Architect to provide the revisions to the Drawings and Specifications to incorporate the agreed upon assumptions and clarifications contained in the Guaranteed Maximum Price Amendment. The Owner shall promptly furnish those revised Drawings and Specifications to the Construction Manager as they are revised. The Construction Manager shall notify the Owner and Architect of any inconsistencies between the Guaranteed Maximum Price Amendment and the revised Drawings and Specifications.

§ 2.2.9 The Construction Manager shall not include in the Guaranteed Maximum Price any sales, consumer, use and similar taxes from which Owner is exempt.

§ 2.3 Construction Phase

§ 2.3.1 General

§ 2.3.1.1 For purposes of Section 8.1.2 of A201-2017, the date of commencement of the Work shall mean the date of commencement of the Construction Phase.

§ 2.3.1.2 The Construction Phase date of commencement shall commence after the Construction Manager's receipt of all applicable permits and completed working Drawings and Specifications, and upon the earlier of: (a) Owner's acceptance of the Construction Manager's Guaranteed Maximum Price proposal or (b) the date established in the Owner's Notice to Proceed.

§ 2.3.2 Administration

§ 2.3.2.1 Those portions of the Work that the Construction Manager does not customarily perform with the Construction Manager's own personnel shall be performed under subcontracts or by other appropriate agreements with the Construction Manager. The Construction Manager shall publicly advertise and solicit through competitive purchasing, as required by law for the performance of all major elements of the Work. Bids will be opened privately. The Owner shall then determine, with the advice of the Construction Manager and the Architect, which bids will be accepted. The Construction Manager shall not be required to contract with anyone to whom the Construction Manager has reasonable objection. The Construction Manager may seek to perform portions of the Work required to be publicly advertised. If the Construction Manager submits its own proposal for any portion of the Work, it shall do so in the same manner as required of all subcontractors. The Owner shall decide whether the Construction Manager's proposal

for self-performing portions of the Work offers the best value to Owner. In opening proposals, neither the Construction Manager nor the Owner shall disclose the contents of a proposal during the selection process to anyone who is not an employee of the Construction Manager, Architect, engineer, or Owner. If the Construction Manager's proposal is selected by the Owner, the proposed cost for the self-performed work shall be paid to the Construction Manager, pursuant to progress payments, as if the Construction Manager were a subcontractor. Such payments to the Construction Manager shall be included in the Cost of the Work.

§ 2.3.2.2 If the Guaranteed Maximum Price has been established and when a specific bidder (1) is recommended to the Owner by the Construction Manager, (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 Construction Manager may require that a Change Order be issued to adjust the Contract Time and the Guaranteed Maximum Price by the difference between the bid of the person or entity recommended to the Owner by the Construction Manager and the amount and time requirement of the subcontract or other agreement actually signed with the person or entity designated by the Owner.

§ 2.3.2.3 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 prior consent of the Owner. If the Subcontract is awarded on a cost plus fee basis, the Construction Manager 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 Construction Manager in Section 6.11 below.

§ 2.3.2.4 If the Construction Manager recommends a specific bidder that may be considered a "related party" according to Section 6.10, then the Construction Manager shall promptly notify the Owner in writing of such relationship and notify the Owner of the specific nature of the contemplated transaction, according to Section 6.10.2.

§ 2.3.2.5 The Construction Manager shall schedule and conduct meetings to discuss such matters as procedures, progress, coordination, scheduling, and status of the Work. The Construction Manager shall prepare and promptly distribute minutes to the Owner and Architect. The Construction Manager shall provide periodic presentations updating the progress, quality and status of the Work to Owner's Board of Education, at the Owner's request, at no additional cost to the Owner.

§ 2.3.2.6 Upon the execution of the Guaranteed Maximum Price Amendment, the Construction Manager shall prepare and submit to the Owner and Architect a construction schedule for the Work and submittal schedule in accordance with Section 3.10 of A201-2017 including the Owner's occupancy requirements.

§ 2.3.2.7 The Construction Manager shall record the progress of the Project. On a monthly basis, or otherwise as agreed to by the Owner, the Construction Manager shall submit written progress reports to the Owner and Architect, showing percentages of completion and other information required by the Owner. The Construction Manager shall also keep, and make available to the Owner and Architect, a daily log containing a record for each day of weather, portions of the Work in progress, number of workers on site, identification of equipment on site, problems that might affect progress of the work, accidents, injuries, and other information required by the Owner.

§ 2.3.2.8 The Construction Manager shall develop a system of cost control for the Work, including regular monitoring of actual costs for activities in progress and estimates for uncompleted tasks and proposed changes. The Construction Manager shall identify variances between actual and estimated costs and report the variances to the Owner and Architect and shall provide this information in its monthly reports to the Owner and Architect, in accordance with Section 2.3.2.7 above.

§ 2.4 Professional Services

Section 3.12.10 of A201-2017 shall apply to both the Preconstruction and Construction Phases.

§ 2.5 Hazardous Materials

Section 10.3 of A201-2017 shall apply to both the Preconstruction and Construction Phases.

§ 2.6 The Construction Manager shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract and agrees to fully comply with all safety standards required by the Occupational Safety and Health Administration (OSHA and all amendments thereto).

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However, the Construction Manager's duties herein shall not relieve any Subcontractor or any other person or entity, including any person or entity required to comply with all applicable federal, state and local laws, rules, regulations, and ordinances, from the obligation to provide for the safety of their employees, persons, and property and their requirements to maintain a work environment free of recognized hazards. The Construction Manager shall provide reasonable fall protection safeguards and provide approved fall protection safety equipment for use by all exposed Construction Manager employees.

§ 2.7 The Construction Manager will comply with all applicable federal, state, and local drug and alcohol-related laws and regulations (e.g., Department of Transportation regulations, Drug-Free Workplace Act). The Construction Manager has adopted or will adopt its own policy to assure a drug-free and alcohol-free workplace while on the Owner's premises or performing the Work. The Construction Manager will remove any of its employees, agents, Subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, from performing the Work any time there is suspicion of alcohol and/or drug use, possession, or impairment involving such person, and at any time an incident occurs where drug or alcohol use could have been a contributing factor. The Owner has the right to require the Construction Manager to remove any person from performing the Work any time cause exists to suspect alcohol or drug use. In such cases, the person so removed may only be considered for return to work after the Construction Manager certifies, as a result of a for-cause test, conducted immediately following removal, that said person was in compliance with this Contract. The Construction Manager will not use any person to perform the Work who fails or refuses to take, or tests positive on, any for-cause alcohol or drug test.

§ 2.8 The Owner has also banned the presence of all weapons on the Project site, whether or not the owner thereof has a permit for a weapon, and the Construction Manager agrees that the Construction Manager's representatives, employees, agents, and Subcontractors will abide by same. Weapons may only be permitted in the Owner's parking lots if weapons are locked in personal vehicles in the Owner's parking lot.

§ 2.9 The Construction Manager and the Construction Manager's Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, age, disability, sex, or national origin, or any class otherwise protected by District policy or law. The Construction Manager agrees to post in conspicuous places, available to employees and applicants, notices setting forth the Construction Manager's nondiscrimination policies.

§ 2.10 The Construction Manager must give advance written notice to the Owner if any member of the Construction Manager ownership is convicted of a felony. The Owner may terminate this Agreement if the Owner determines that the Construction Manager failed to give such notice or misrepresented the conduct resulting in the conviction. This paragraph requiring advance notice does not apply to a publicly-held corporation.

§ 2.11 Prior to commencement of the Work, the Construction Manager shall provide to the Owner sufficient documentation to affirm the Construction Manager's enrollment and participation in the Federal Work Authorization Program. Federal Work Authorization Program means the eVerify program maintained and operated by the United States Department of Homeland Security and the Social Security Administration, or any successor program. The Construction Manager shall also provide the Owner sufficient documentation affirming that the Construction Manager does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

§ 2.12 The Owner reserves the right to receive and review payroll records, payment records, and earning statements of labor employees of the Construction Manager, and of the Construction Manager's Subcontractors and Sub-subcontractors.

§ 2.13 In executing the Work under the Contract Documents, the Construction Manager shall comply with all applicable state and federal laws, including but not limited to, laws concerned with labor, equal employment opportunity, safety and minimum wages.

§ 2.14 If no schedule is attached, then the parties shall use the wage rate determined by the US Department of Labor in accordance with the Davis-Bacon Act, 40 U.S.C. Section 276a, (which can be accessed on the internet at <https://www.wdol.gov/> or <https://beta.sam.gov/>) effective as of the date of this Agreement.

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ARTICLE 3 OWNER'S RESPONSIBILITIES

§ 3.1 Information and Services Required of the Owner

§ 3.1.1 The Owner shall provide information with reasonable promptness, regarding requirements for and limitations on the Project, including a written program which shall set forth the Owner's objectives, constraints, and criteria, including schedule, space requirements and relationships, flexibility and expandability, special equipment, systems, sustainability and site requirements.

§ 3.1.2 Prior to the execution of the Guaranteed Maximum Price Amendment, the Construction Manager may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. Thereafter, the Construction Manager may only request such evidence if (1) the Owner fails to make payments to the Construction Manager as the Contract Documents require, (2) a change in the Work materially changes the Contract Sum, or (3) the Construction Manager identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Construction Manager and Architect.

§ 3.1.3 The Owner shall establish and periodically update the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Section 6.1.1, (2) the Owner's other costs, and (3) reasonable contingencies related to all of these costs. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Construction Manager and Architect. The Owner and the Architect, in consultation with the Construction Manager, shall thereafter agree to a corresponding change in the Project's scope and quality.

§ 3.1.4 **Structural and Environmental Tests, Surveys and Reports.** During the Preconstruction Phase, the Owner shall furnish the following information or services with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Construction Manager's performance of the Work with reasonable promptness after receiving the Construction Manager's written request for such information or services. The Construction Manager shall be entitled to rely on the accuracy of information and services furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 3.1.4.1 The Owner shall furnish tests, inspections and reports required by law and as otherwise agreed to by the parties, such as structural, mechanical, and chemical tests, tests for air and water pollution, and tests for hazardous materials.

§ 3.1.4.2 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; designated wetlands; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data with respect to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.

§ 3.1.4.3 The Owner, when such services are requested, shall furnish services of geotechnical engineers, which may include but are not limited to test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, seismic evaluation, ground corrosion tests and resistivity tests, including necessary operations for anticipating subsoil conditions, with written reports and appropriate recommendations.

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

§ 3.2 Owner's Designated Representative

The Owner shall identify a representative authorized to act on behalf of the Owner with respect to the Project. The Owner's representative shall render decisions promptly and furnish information expeditiously, so as to avoid unreasonable delay in the services or Work of the Construction Manager. Except as otherwise provided in Section

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4.2.1 of A201-2017, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 3.2.1 Legal Requirements. The Owner shall furnish all legal, insurance and accounting services, including auditing services, that may be reasonably necessary at any time for the Project to meet the Owner's needs and interests.

§ 3.3 Architect

The Owner shall retain an Architect to provide services, duties and responsibilities as described in AIA Document B133™-2014, Standard Form of Agreement Between Owner and Architect, Construction Manager as Constructor Edition. The Owner shall provide the Construction Manager a copy of the executed agreement between the Owner and the Architect, and any further modifications to the agreement. The Construction Manager's services shall be provided in conjunction with the services of an Architect.

ARTICLE 4 COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES

§ 4.1 Compensation

§ 4.1.1 For the Construction Manager's Preconstruction Phase services, the Owner shall compensate the Construction Manager as follows:

§ 4.1.2 For the Construction Manager's Preconstruction Phase services described in Sections 2.1 and 2.2:
(Insert amount of, or basis for, compensation and include a list of reimbursable cost items, as applicable.)

§ 4.1.3 Compensation for Preconstruction Phase services shall be equitably adjusted if such services extend beyond October 2021 or if the originally contemplated scope of services is significantly modified. The unit price for Preconstruction services beyond October 2021 shall be Construction Manager's actual costs incurred in providing Preconstruction Phase Services. Costs for preconstruction services are based on providing construction phase services for the Work. If the Construction Manager is terminated for convenience prior to approval of the Guaranteed Maximum Price or start of the Work, the Construction Manager shall be entitled to reimbursement for its actual costs incurred in providing preconstruction services.

§ 4.1.4 Compensation based on Direct Personnel Expense includes the direct salaries of the Construction Manager's personnel providing Preconstruction Phase services on the Project and the Construction Manager's costs for the mandatory and customary contributions and benefits related thereto, such as employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, employee retirement plans and similar contributions. See Exhibit A for Hourly Rates for direct personnel expenses.

§ 4.2 Payments

§ 4.2.1 Unless otherwise agreed, payments for services shall be made monthly in proportion to services performed.

§ 4.2.2 Payments are due and payable upon presentation of the Construction Manager's invoice. Amounts unpaid thirty (30) days after the invoice date shall bear interest at the legal rate prevailing from time to time at the principal place of business of the Construction Manager.

(Paragraphs deleted)

ARTICLE 5 COMPENSATION FOR CONSTRUCTION PHASE SERVICES

§ 5.1 For the Construction Manager's performance of the Work as described in Section 2.3, the Owner shall pay the Construction Manager the Contract Sum in current funds. The Contract Sum is the Cost of the Work as defined in Section 6.1.1 plus the Construction Manager's Fee.

§ 5.1.1 The Construction Manager's Fee:

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

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

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

See AIA Document A201, Section 7.1.4.

§ 5.1.4 Rental rates for Construction Manager-owned equipment shall, be subject to the Owner's prior approval and shall not exceed one hundred percent (100 %) of the standard rate paid at the place of the Project.

§ 5.1.5 Unit prices, if any:

(Paragraphs deleted)

To be included, if any, in the Guaranteed Maximum Price Amendment.

(Table deleted)

§ 5.2 Guaranteed Maximum Price

§ 5.2.1 The Construction Manager guarantees that the Contract Sum shall not exceed the Guaranteed Maximum Price set forth in the Guaranteed Maximum Price Amendment, as it is amended from time to time. To the extent the Cost of the Work exceeds the Guaranteed Maximum Price, the Construction Manager shall bear such costs in excess of the Guaranteed Maximum Price without reimbursement or additional compensation from the Owner.

(Insert specific provisions if the Construction Manager is to participate in any savings.)



§ 5.2.2 The Guaranteed Maximum Price is subject to additions and deductions by Change Order as provided in the Contract Documents and the Date of Substantial Completion shall be subject to adjustment as provided in the Contract Documents.

§ 5.3 Changes in the Work

§ 5.3.1 The Owner may, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions. The Owner shall issue such changes in writing. The Architect may make minor changes in the Work as provided in Section 7.4 of AIA Document A201-2017, General Conditions of the Contract for Construction. The Construction Manager shall be entitled to an equitable adjustment in the Contract Time as a result of changes in the Work.

§ 5.3.2 Adjustments to the Guaranteed Maximum Price on account of changes in the Work subsequent to the execution of the Guaranteed Maximum Price Amendment may be determined by any of the methods listed in Section 7.3.3 of AIA Document A201-2017, General Conditions of the Contract for Construction.

§ 5.3.3 In calculating adjustments to subcontracts (except those awarded with the Owner's prior consent on the basis of cost plus a fee), the terms "cost" and "fee" as used in Section 7.3.3.3 of AIA Document A201-2017 and the term "costs" as used in Section 7.3.7 of AIA Document A201-2017 shall have the meanings assigned to them in AIA Document A201-2017 and shall not be modified by Sections 5.1 and 5.2, Sections 6.1 through 6.7, and Section 6.8 of this Agreement. Adjustments to subcontracts awarded with the Owner's prior consent on the basis of cost plus a fee shall be calculated in accordance with the terms of those subcontracts.

§ 5.3.4 In calculating adjustments to the Guaranteed Maximum Price, the terms "cost" and "costs" as used in the above-referenced provisions of AIA Document A201-2017 shall mean the Cost of the Work as defined in Sections 6.1 to 6.7 of this Agreement and the term "fee" shall mean the Construction Manager's Fee as defined in Section 5.1 of this Agreement.

§ 5.3.5 If no specific provision is made in Section 5.1.2 for adjustment of the Construction Manager'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 Section 5.1.2 will cause substantial inequity to the Owner or Construction Manager, the Construction Manager'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.

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ARTICLE 6 COST OF THE WORK FOR CONSTRUCTION PHASE

§ 6.1 Costs to Be Reimbursed

§ 6.1.1 The term Cost of the Work shall mean costs necessarily incurred by the Construction Manager in the proper performance of the Work. Such costs shall be at rates not higher than the standard paid at the place of the Project except with prior consent of the Owner. The Cost of the Work shall include only the items set forth in Sections 6.1 through 6.7.

§ 6.1.2 Where any cost is subject to the Owner's prior approval, the Construction Manager shall obtain this approval prior to incurring the cost. The parties shall endeavor to identify any such costs prior to executing Guaranteed Maximum Price Amendment.

§ 6.2 Labor Costs

§ 6.2.1 Wages of construction workers directly employed by the Construction Manager to perform the construction of the Work at the site or, with the Owner's prior approval, at off-site workshops.

§ 6.2.2 Wages or salaries of the Construction Manager's supervisory and administrative personnel when stationed at the site

(Paragraphs deleted)

or at Construction Manager's principal office pursuant to Exhibit A.

§ 6.2.3 Wages and salaries of the Construction Manager's supervisory or administrative personnel engaged at factories, workshops or on the road, 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.

§ 6.2.4 Costs paid or incurred by the Construction Manager for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, bonuses, provided such costs are based on wages and salaries included in the Cost of the Work under Sections 6.2.1 through 6.2.3.

§ 6.2.5 Bonuses, profit sharing, incentive compensation and any other discretionary payments paid to anyone hired by the Construction Manager or paid to any Subcontractor or vendor, with the Owner's prior approval.

§ 6.2.6 Costs for services incurred during the Preconstruction Phase.

§ 6.3 Subcontract Costs

Payments made by the Construction Manager to Subcontractors in accordance with the requirements of the subcontracts.

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

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

§ 6.4.2 Costs of materials described in the preceding Section 6.4.1 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 Construction Manager. Any amounts realized from such sales shall be credited to the Owner as a deduction from the Cost of the Work.

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

§ 6.5.1 Costs of transportation, storage, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Construction Manager 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 Construction Manager shall mean fair market value.

§ 6.5.2 Rental charges for temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Construction Manager at the site and costs of transportation, installation,

minor repairs, dismantling and removal. The total rental cost of any Construction Manager-owned item may not exceed the purchase price of any comparable item. Rates of Construction Manager-owned equipment and quantities of equipment shall be subject to the Owner's prior approval.

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

§ 6.5.4 Costs of document reproductions, facsimile transmissions and long-distance telephone calls, postage and parcel delivery charges, telephone service at the site and reasonable petty cash expenses of the site office.

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

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

§ 6.6 Miscellaneous Costs

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

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

§ 6.6.4 Fees of laboratories for tests required by the Contract Documents, except those related to defective or nonconforming Work for which reimbursement is excluded by Section 13.5.3 of AIA Document A201-2017 or by other provisions of the Contract Documents, and which do not fall within the scope of Section 6.7.3.

§ 6.6.5 Royalties and license fees paid for the use of a particular design, process or product required by the Contract Documents; the cost of defending suits or claims for infringement of patent rights arising from such requirement of the Contract Documents; and payments made in accordance with legal judgments against the Construction Manager resulting from such suits or claims and payments of settlements made with the Owner's consent. However, such costs of legal defenses, judgments and settlements shall not be included in the calculation of the Construction Manager's Fee or subject to the Guaranteed Maximum Price. If such royalties, fees and costs are excluded by the last sentence of Section 3.17 of AIA Document A201-2017 or other provisions of the Contract Documents, then they shall not be included in the Cost of the Work.

§ 6.6.6 Costs for electronic equipment and software, directly related to the Work with the Owner's prior approval.

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

§ 6.6.8 Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between the Owner and Construction Manager, reasonably incurred by the Construction Manager 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.

§ 6.6.9 Subject to the Owner's prior approval, expenses incurred in accordance with the Construction Manager's standard written personnel policy for relocation and temporary living allowances of the Construction Manager's personnel required for the Work.

§ 6.7 Other Costs and Emergencies

§ 6.7.1 Other costs incurred in the performance of the Work if, and to the extent, approved in advance in writing by the Owner.

§ 6.7.2 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 Section 10.4 of AIA Document A201-2017.

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

§ 6.7.4 The costs described in Sections 6.1 through 6.7 shall be included in the Cost of the Work, notwithstanding any provision of AIA Document A201-2017 or other Conditions of the Contract which may require the Construction Manager to pay such costs, unless such costs are excluded by the provisions of Section 6.8.

§ 6.8 Costs Not To Be Reimbursed

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

- .1 Salaries and other compensation of the Construction Manager's personnel stationed at the Construction Manager's principal office or offices other than the site office, except as specifically provided in Section 6.2, or as may be provided in Article 11;
- .2 Expenses of the Construction Manager's principal office and offices other than the site office;
- .3 Overhead and general expenses, except as may be expressly included in Sections 6.1 to 6.7;
- .4 The Construction Manager's capital expenses, including interest on the Construction Manager's capital employed for the Work;
- .5 Except as provided in Section 6.7.3 of this Agreement, costs due to the negligence or failure of the Construction Manager, Subcontractors and suppliers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable to fulfill a specific responsibility of the Contract;
- .6 Any cost not specifically and expressly described in Sections 6.1 to 6.7;
- .7 Costs, other than costs included in Change Orders approved by the Owner, that would cause the Guaranteed Maximum Price to be exceeded; and
- .8 Costs for services incurred during the Preconstruction Phase.

§ 6.9 Discounts, Rebates and Refunds

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

§ 6.9.2 Amounts that accrue to the Owner in accordance with the provisions of Section 6.9.1 shall be credited to the Owner as a deduction from the Cost of the Work.

§ 6.10 Related Party Transactions

§ 6.10.1 For purposes of Section 6.10, the term "related party" shall mean a parent, subsidiary, affiliate or other entity having common ownership or management with the Construction Manager; any entity in which any stockholder in, or management employee of, the Construction Manager owns any interest in excess of ten percent in the aggregate; or any person or entity which has the right to control the business or affairs of the Construction Manager. The term "related party" includes any member of the immediate family of any person identified above.

§ 6.10.2 If any of the costs to be reimbursed arise from a transaction between the Construction Manager and a related party, the Construction Manager 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, then the cost incurred shall be included as a cost to be reimbursed, and the Construction Manager shall procure the Work,

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equipment, goods or service from the related party, as a Subcontractor, according to the terms of Sections 2.3.2.1, 2.3.2.2 and 2.3.2.3. If the Owner fails to authorize the transaction, the Construction Manager shall procure the Work, equipment, goods or service from some person or entity other than a related party according to the terms of Sections 2.3.2.1, 2.3.2.2 and 2.3.2.3.

§ 6.11 Accounting Records

The Construction Manager 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 Construction Manager's records and accounts, including complete documentation supporting accounting entries, books, correspondence, instructions, drawings, receipts, subcontracts, Subcontractor's proposals, purchase orders, vouchers, memoranda and other data relating to this Contract. The Construction Manager 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 7 PAYMENTS FOR CONSTRUCTION PHASE SERVICES

§ 7.1 Progress Payments

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

§ 7.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.

§ 7.1.3 Provided that an Application for Payment is received by the Architect not later than the 1st day of a month, the Owner shall make payment of the certified amount to the Construction Manager not later than the 1st day of the following month. If an Application for Payment is received by the Architect after the application date fixed above, payment 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.)

§ 7.1.4 The Application for Payment shall be submitted on AIA Form G702 and G703 to the Architect for approval for payment.

§ 7.1.5 Each Application for Payment shall be based on the most recent schedule of values submitted by the Construction Manager in accordance with the Contract Documents. The schedule of values shall allocate the entire Guaranteed Maximum Price among the various portions of the Work, except that the Construction Manager's Fee shall be shown as a single separate item. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Construction Manager's Applications for Payment.

§ 7.1.6 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 percentage of that portion of the Work which has actually been completed.

§ 7.1.7 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- .1 Take 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 schedule of values. Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.9 of AIA Document A201-2017;
- .2 Add 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 Work, or if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing;

- .3 Add the Construction Manager's Fee. The Construction Manager's Fee shall be computed upon the Cost of the Work at the rate stated in Section 5.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, shall be an amount that bears the same ratio to that fixed-sum fee as the Cost of the Work bears to a reasonable estimate of the probable Cost of the Work upon its completion;
- .4 Subtract retainage of Five percent (5 %) from that portion of the Work that the Construction Manager self-performs;
- .5 Subtract the aggregate of previous payments made by the Owner;
- .6 Subtract the shortfall, if any, indicated by the Construction Manager in the documentation required by Section 7.1.4 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the Owner's auditors or other representatives in such documentation; and
- .7 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201-2017.
- .8 Subtract retainage of five percent (5%) of the remaining amount, including the Construction Manager's Fee, of the progress payment.
- .9 The progress payment amount determined in accordance with this Section shall be further modified under the following circumstances:
 - .1 Add, if Final Completion of the Work is thereafter materially delayed by Owner or Owner's agents through no fault of the Construction Manager, any additional amounts payable in accordance with Section 9.10.3 of AIA Document A201- 2017, as amended.
 - .2 If Construction Manager fails or refuses to complete the Work, or has unsettled claims with Owner, then any final payment to the Construction Manager shall be subject to deduction for such amounts as the Architect and Program Manager, if applicable, shall determine as the cost for completing incomplete Work and the value of unsettled claims.

§ 7.1.8 The Owner and Construction Manager shall agree upon a mutually acceptable procedure for review and approval of payments to Subcontractors. The percentage of retainage held on Subcontracts shall be the same percentage of retainage withheld from Construction Manager.

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

§ 7.1.10 In taking action on the Construction Manager's Applications for Payment, the Construction Manager shall be responsible for all error and omissions. The Owner shall not be responsible for the Construction Manager's errors or omissions.

§ 7.2 Final Payment

§ 7.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Construction Manager when:

- .1 the Construction Manager has fully performed the Contract except for the Construction Manager's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201-2017, and to satisfy other requirements, if any, which extend beyond final payment;
- .2 the Construction Manager has submitted a final accounting for the Cost of the Work and a final Application for Payment that is certified by the Construction Manager and reviewed and approved by the Owner's auditors or other representatives;
- .3 a final Certificate for Payment has been issued by the Architect; and
- .4 the Construction Manager has provided all documents required by Section 3.5.8 of AIA Document A201- 2017.

The Owner's final payment to the Construction Manager shall be made no later than thirty (30) days after the issuance of Board approval.

§ 7.2.2 At the Owners option, the Owner's auditors or representatives will review and report in writing on the Construction Manager's final accounting within 30 days after delivery of the final accounting to the Architect by the Construction Manager. Based upon such Cost of the Work as the Owner's auditors or representatives report to be substantiated by the Construction Manager's final accounting, and provided the other conditions of Section 7.2.1 have

been met, the Architect will, within seven days after receipt of the written report of the Owner's auditors or representatives, either issue to the Owner a final Certificate for Payment with a copy to the Construction Manager, or notify the Construction Manager and Owner in writing of the Architect's reasons for withholding a certificate as provided in Section 9.5.1 of the AIA Document A201-2017. The time periods stated in this Section supersede those stated in Section 9.4.1 of the AIA Document A201-2017. The Architect is not responsible for verifying the accuracy of the Construction Manager's final accounting.

§ 7.2.3 If the Owner's auditors report the Cost of the Work as substantiated by the Construction Manager's final accounting to be less than claimed by the Construction Manager, the Construction Manager shall be entitled to request mediation of the disputed amount without seeking an initial decision pursuant to Section 15.2 of A201-2017. A request for mediation shall be made by the Construction Manager within 30 days after the Construction Manager's receipt of a copy of the Architect'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 Construction Manager. Pending a final resolution of the disputed amount, the Owner shall pay the Construction Manager the amount certified in the Architect's final Certificate for Payment.

§ 7.2.4 If, subsequent to final payment and at the Owner's prior written request, the Construction Manager incurs costs described in Section 6.1.1 and not excluded by Section 6.8 to correct defective or nonconforming Work, the Owner shall reimburse the Construction Manager such costs and the Construction Manager'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.

ARTICLE 8 INSURANCE AND BONDS

For all phases of the Project, the Construction Manager and the Owner shall purchase and maintain insurance, and the Construction Manager shall provide bonds as set forth in Article 11 of AIA Document

(Paragraphs deleted)

A201-2017.

(Table deleted)

ARTICLE 9 DISPUTE RESOLUTION

§ 9.1 Any Claim between the Owner and Construction Manager shall be resolved in accordance with the provisions set forth in this Article 9 and Article 15 of A201-2017. However, for Claims arising from or relating to the Construction Manager's Preconstruction Phase services, no decision by the Initial Decision Maker shall be required as a condition precedent to mediation or binding dispute resolution, and Section 9.3 of this Agreement shall not apply.

§ 9.2

(Paragraphs deleted)

Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Section 15.2 of AIA Document A201-2017 for Claims arising from or relating to the Construction Manager's Construction Phase services, unless the parties appoint below another individual, not a party to the Agreement, to serve as the Initial Decision Maker.

(Paragraphs deleted)

ARTICLE 10 TERMINATION OR SUSPENSION

§ 10.1 Termination Prior to Establishment of the Guaranteed Maximum Price

§ 10.1.1 Prior to the execution of the Guaranteed Maximum Price Amendment, the Owner may terminate this Agreement upon not less than seven days' written notice to the Construction Manager for the Owner's convenience and without cause, and the Construction Manager may terminate this Agreement, upon not less than seven (7) days' written notice to the Owner, for the reasons set forth in Section 14.1.1 of A201-2017.

§ 10.1.2 In the event of termination of this Agreement pursuant to Section 10.1.1, the Construction Manager shall be equitably compensated for Preconstruction Phase services performed prior to receipt of a notice of termination. In no event shall the Construction Manager's compensation under this Section exceed the compensation set forth in Section 4.1.

§ 10.1.3 If the Owner terminates the Contract pursuant to Section 10.1.1 after the commencement of the Construction Phase but prior to the execution of the Guaranteed Maximum Price Amendment, the Owner shall pay to the

Construction Manager an amount calculated as follows, which amount shall be in addition to any compensation paid to the Construction Manager under Section 10.1.2:

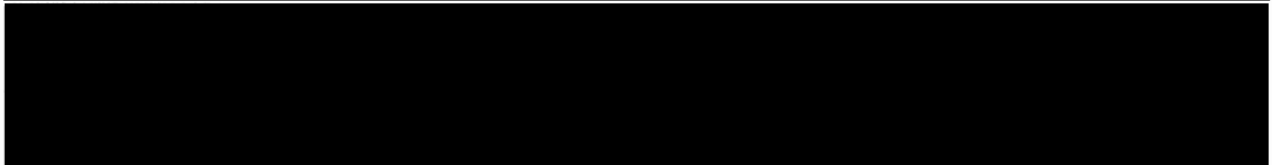
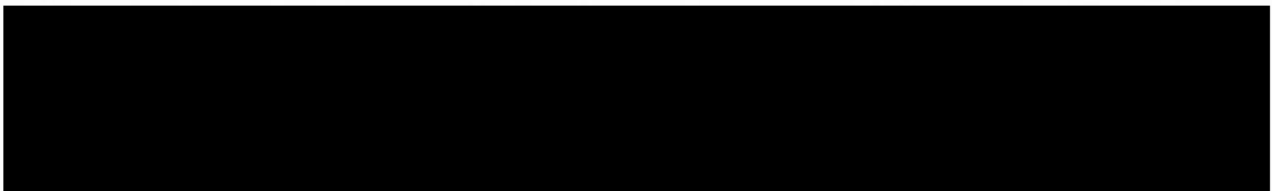
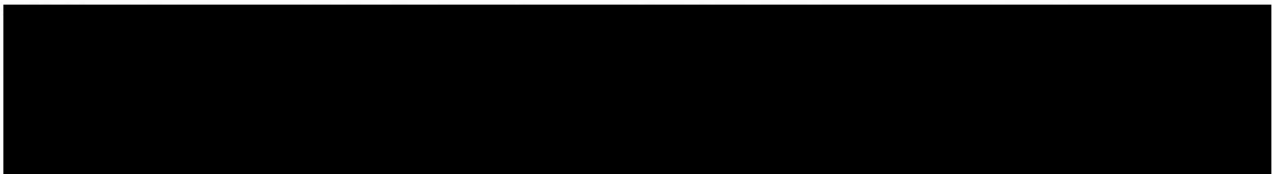
- .1 Take the Cost of the Work incurred by the Construction Manager to the date of termination;
- .2 Add the Construction Manager's Fee computed upon the Cost of the Work to the date of termination at the rate stated in Section 5.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum Fee as the Cost of the Work at the time of termination bears to a reasonable estimate of the probable Cost of the Work upon its completion; and
- .3 Subtract the aggregate of previous payments made by the Owner for Construction Phase services.

§ 10.1.4 The Owner shall also pay the Construction Manager fair compensation, either by purchase or rental at the election of the Owner, for any equipment owned by the Construction Manager which the Owner elects to retain and which is not otherwise included in the Cost of the Work under Section 10.1.3.1. To the extent that the Owner elects to take legal assignment of subcontracts and purchase orders (including rental agreements), the Construction Manager shall, as a condition of receiving the payments referred to in this Article 10, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Construction Manager, as the Owner may require for the purpose of fully vesting in the Owner the rights and benefits of the Construction Manager under such subcontracts or purchase orders. All Subcontracts, purchase orders and rental agreements entered into by the Construction Manager will contain provisions allowing for assignment to the Owner as described above.

§ 10.1.5 If the Owner accepts assignment of subcontracts, purchase orders or rental agreements as described above, the Owner will reimburse or indemnify the Construction Manager for all costs arising under the subcontract, purchase order or rental agreement, if those costs would have been reimbursable as Cost of the Work if the contract had not been terminated. If the Owner chooses not to accept assignment of any subcontract, purchase order or rental agreement that would have constituted a Cost of the Work had this agreement not been terminated, the Construction Manager will terminate the subcontract, purchase order or rental agreement and the Owner will pay the Construction Manager the costs necessarily incurred by the Construction Manager because of such termination.

§ 10.2 Termination Subsequent to Establishing Guaranteed Maximum Price

Following execution of the Guaranteed Maximum Price Amendment and subject to the provisions of Section 10.2.1 and 10.2.2 below, the Contract may be terminated as provided in Article 14 of AIA Document A201-2017.



ARTICLE 11 MISCELLANEOUS PROVISIONS

§ 11.1 Terms in this Agreement shall have the same meaning as those in A201-2017.

§ 11.2 Ownership and Use of Documents

Section 1.5 of A201-2017 shall apply to both the Preconstruction and Construction Phases.

§ 11.3 Governing Law

Section 13.1 of A201-2017 shall apply to both the Preconstruction and Construction Phases.

§ 11.4 Assignment

The Owner and Construction Manager, respectively, bind themselves, their agents, successors, assigns and legal representatives to this Agreement. Neither the Owner nor the Construction Manager shall assign this Agreement without the written consent of the other, except that the Owner may assign this Agreement to a lender providing financing for the Project if the lender agrees to assume the Owner's rights and obligations under this Agreement. Except as provided in Section 13.2.2 of A201-2017, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 11.5 Other provisions:

§ 11.5.1 No delay or omission by the Owner or Construction Manager in exercising any right or power accruing upon the noncompliance or failure of performance of any of the provisions of this Agreement shall impair any such right or power or be construed to be a waiver thereof. A waiver of any breach by either of the parties of any covenant, condition or agreement shall not be construed to be a waiver of any subsequent breach thereof or of any other covenant, condition or agreement herein contained.

§ 11.5.3 The Construction Manager shall require all construction workers, whether the Construction Manager's own forces or the forces of the Construction Manager's Subcontractors, to park their personal motor vehicles on the Owner's property only in the parking places designated by the Owner's campus principal. Any vehicles not parked in the appropriate locations shall be towed at the vehicle owner's sole expense.

§ 11.5.4 The Construction Manager stipulates that Owner is a political subdivision of the State of Missouri, and, as such, may enjoy immunities from suit and liability under the Constitution and laws of the State of Missouri. By entering into this Agreement, the Owner does not waive any of its immunities from suit and/or liability, except as otherwise specifically provided herein and as specifically authorized by law.

§ 11.5.5 This Agreement is subject to all applicable federal and state laws, rules, and regulations. Invalidity of any portion of this Agreement under the laws of the State of Missouri or of the United States shall not affect the validity of the remainder of this Agreement. Governing law and venue shall be as specified in AIA Document A201-2017.

§ 11.5.6 Contract modifications due to inclement weather. During the construction phase of the Project (i.e. after the Date of Commencement) the Construction Manager has included in the Project schedule allowance days of inclement weather per the table below:

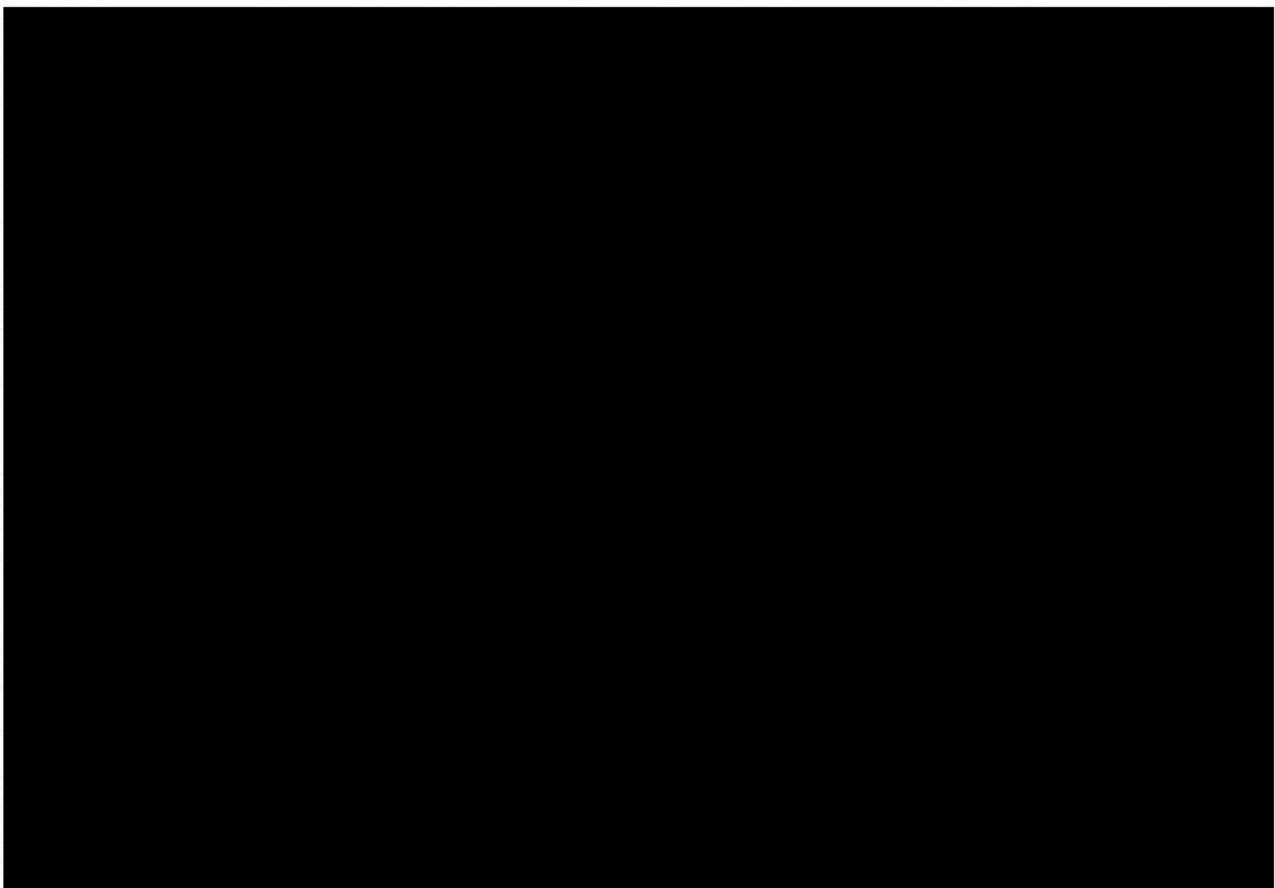
January	6 days	May	4 days	September	3 days
February	5 days	June	5 days	October	2 day
March	3 days	July	3 days	November	2 days
April	3 days	August	2 days	December	4 days

The Construction Manager shall document, in writing, to the Owner on a monthly basis all days on which critical path work could not be productively performed due to the effects of inclement weather, in increments of ½ days. Unproductive days in excess of those allowed per month, as listed above, shall constitute an extension of the contract completion date. Construction Manager shall be compensated for additional costs as a result of such time extension. Effects of weather impacts will be calculated and adjustments made to the Contract Price and Time on a monthly basis. Calendar days shall be used as the basis of tracking lost days. There shall be no "carry-over" of anticipated bad weather days from one month to another. By way of example, if August has four (4) scheduled inclement weather days but only has one (1) actual inclement weather day, then the anticipated three (3) extra days do not carry over into September.

§ 11.5.7 Any pricing, estimates, or allowances contained in the Contract Documents or otherwise provided by the Construction Manager with respect to the amount of any particular line items included within the Guaranteed

Maximum Price shall not constitute a warranty, representation, or obligation of the Construction Manager to complete the Work associated with such line items for the specified amount, and the Construction Manager shall have the right to allocate any difference between the estimated and actual cost of performing the Work associated with any line item to any other line item(s).

§ 11.5.8 The Construction Manager is not required to furnish free of charge to Owner's separate contractors and material suppliers, general/special condition items such as, but not limited to, unloading, temporary electrical service, vertical/horizontal transportation, trash removal, clean-up, insurance, equipment temporary barricades and protection, etc. However, the Construction Manager shall cooperate with the Owner's separate contractors and material suppliers to the extent that such cooperation does not materially interfere with the performance of the Work.



ARTICLE 12 SCOPE OF THE AGREEMENT

§ 12.1 This Agreement represents the entire and integrated agreement between the Owner and the Construction Manager and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Construction Manager. If any portion of this Contract is determined to be invalid, unenforceable, or void, then that portion shall be severed, and all other portions of this Contract shall remain in full force and effect.

§ 12.2 The following documents comprise the Agreement:

- .1 AIA Document A133-2009, Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price
- .2 AIA Document A201-2017, General Conditions of the Contract for Construction
- .3 AIA Document E201™-2017, Digital Data Protocol Exhibit, if completed.

.4
(Paragraphs deleted)

Other documents:

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(List other documents, if any, forming part of the Agreement.)

Exhibit A – Lump Sum Construction Operation Staff Hourly Rates
Exhibit B: Notice to Owner

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

Platte County R-3 School District

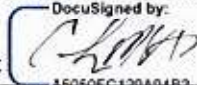
By:


OWNER (Signature)

By: Buffy Smith, Board President
(Printed name and title)

McCownGordon Construction, LLC

By:


CONSTRUCTION MANAGER (Signature)

By: Chris Vaeth
(Printed name and title)

DocuSigned by:
8/18/2020 | 9:27 AM CDT
AF050FG129A04B2





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AIA® Document A201® – 2017

General Conditions of the Contract for Construction

for the following PROJECTS:

(Name and location or address)

New Middle School
Renovation of Barry School
Renovation of Pathfinder Elementary
Districtwide Facility Improvements

THE OWNER:

(Name, legal status and address)

Platte County R-3 School District
998 Platte Falls Road
Platte City, Missouri 54079

THE CONTRACTOR as CONSTRUCTION MANAGER

(Name, legal status and address)

McCownGordon Construction, LLC
850 Main Street
Kansas City, MO 64105

THE ARCHITECTS:

(Name, legal status and address)

Hollis + Miller Architects
1828 Walnut Street
Kansas City, MO 64108

And

DLR Group
7290 W. 133rd Street
Overland Park, KS 66213

TABLE OF ARTICLES

- 1 GENERAL PROVISIONS
- 2 OWNER
- 3 CONTRACTOR
- 4 ARCHITECT
- 5 SUBCONTRACTORS
- 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
- 7 CHANGES IN THE WORK

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.

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

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- 8 TIME
- 9 PAYMENTS AND COMPLETION
- 10 PROTECTION OF PERSONS AND PROPERTY
- 11 INSURANCE AND BONDS
- 12 UNCOVERING AND CORRECTION OF WORK
- 13 MISCELLANEOUS PROVISIONS
- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
- 15 CLAIMS AND DISPUTES

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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 Conditions), all sections of the Project Manual and Construction Documents (as defined in §1.1.3 below) including, 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. Any reference to Contract Documents herein shall include the Construction Documents, and any other documents included in the Contract Documents, as amended and/or supplemented for this Project.

§ 1.1.1.1 The Agreement, represents the entire and integrated agreement between the Owner and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. Any revision, amendment, or modification to the Standard Form of the Agreement shall be valid, binding, and enforceable only if said revision, amendment or modification is made conspicuous by being underlined, lined-through, or highlighted in this Agreement signed by Contractor and the authorized representative of Owner's Board of Education. In the event of conflict, terms and conditions contained in the Agreement, shall take precedence over terms and conditions contained in the General Conditions, and the terms and conditions in the General Conditions, shall take precedence over all other terms and conditions contained in the other Contract Documents. If the Request for Proposals and the Proposal are included in the Contract Documents, then the Request for Proposals shall take precedence over the Proposal, unless specifically agreed otherwise herein.

§ 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 written Modification signed by the Contractor, approved by the Owner's Board of Education, and signed by the representative of the Owner's Board of Education who is authorized to sign contracts. As a material consideration for the making of the Contract, modifications to the Contract shall not be construed against the maker of said modifications. 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.

§ 1.1.2.1 To be effective, all Contract Documents requiring signatures must be signed first by the Contractor and then by the Owner's authorized representative, after approval by Owner's Board of Education. If an approved Contract Document requiring the Contractor's signature has not been signed, then the missing signature shall be provided within a reasonable period of time. Failure of the Contractor to sign an approved Contract Document after notice and a reasonable opportunity to sign shall be considered a material breach of the Contract by the Contractor.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project. The Work includes all of Contractor's responsibilities as to all labor, parts, supplies, skill, supervision, transportation services, storage requirements, and other facilities and things necessary, proper or incidental to the carrying out and completion of the terms of the Contract Documents and the Construction Documents and all other items of cost or value needed to produce, construct and fully complete the public Work identified by the Contract Documents and the Construction Documents. "Construction Documents" means: all Drawings, Specifications, geotechnical reports, Addenda, submittals, transmittals, deliverables, instructions to Contractors, and other documents, including those in electronic form, prepared by the Architect and the Architect's consultants and which set forth in detail the requirements for construction of the Project. The Construction Documents shall include Drawings and Specifications that establish in detail the quality levels of materials and systems required for the Project. The Construction Documents shall reflect all agreements between Owner and Architect concerning Owner's budgetary constraints, programmatic needs and expectations as to quality, functionality of systems, maintenance costs, and usable life of

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equipment and facilities. Said Construction Documents shall reflect the Owner's educational program and educational specifications, the State educational adequacy standards and the standards set forth in Section 3.1.4 of AIA Document B101-2017. The Architect shall provide Construction Documents which are sufficient for the Contractor to complete construction of the Project free from material defects or omissions.

§ 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.

(Paragraphs deleted)

§ 1.1.7 Intentionally Deleted

§ 1.1.8 Intentionally Deleted.

§ 1.1.9 Addenda.

Addenda are written or graphic instruments issued prior to the execution of the Contract, which modify or interpret the bidding or proposal documents, including Drawings and Specifications, by additions, deletions, clarifications, or corrections. Addenda will become part of the Contract Documents and Construction Documents when the Agreement is executed. The Contractor and subcontractors shall include all addenda items on their copies of the Drawings and Specifications.

§ 1.1.10 All references to "Contractor" shall include "Construction Manager at Risk" as appropriate.

§ 1.1.11 The Owner may retain Program Manager(s) to carry out some of the functions of the administration of the Owner's construction program. The Contractor, Architect, and Program Manager (when applicable) shall cooperate with each other in the performance of their respective functions. The management and reporting systems used by the Owner and/or Program Manager, including the assignment of the Program Manager, may be changed by Owner during the Project.

§ 1.1.12 Approved, Approved Equal, Approved Equivalents, Or Equal The terms "Approved" and "Approved Equal" relate to the substitution of materials, equipment, or procedure in writing by the Architect prior to receipt of bids.

§ 1.1.13 Abbreviations

AIA: American Institute of Architects. (All references to AIA documents refer to AIA's trademarked documents. Each reference to a specific document shall refer to the document as amended for this Project.)

AIEE: American Institute of Electrical Engineers

ACI: American Concrete Institute

ASHERA: Asbestos Hazardous Emergency Response Act

AISI: American Iron and Steel Institute

AISC: American Institute of Steel Construction

ANSI: American National Standards Institute

ASA: American Standards Association

ASTM: American Society of Testing Materials

AWSC: American Welding Society Code

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

EPA: Environmental Protection Agency

FS: Federal Specification

NEC: National Electrical Code

OSHA: Occupational Safety and Health Administration

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SPR: Simplified Practice Recommendation
UL: Underwriters Laboratories, Inc.

§ 1.1.14 Bids or Bidding The terms "Bids" or "Bidding" shall include any kind of competitive purchasing.

§ 1.1.15 Miscellaneous Other Words

§ 1.1.15.1 Business Day

The term "business day" is a day the Owner's Administration Building is scheduled to be open for normal business purposes, unless closed by the Owner's Superintendent of Schools for inclement weather or other reason. Days on which the Administration Building is normally closed are Thanksgiving Break, Winter Break, Spring Break, and Summer Break, as well as other federal, state or local days specified in the calendar approved by the Owner's Board of Education on an annual basis. A business day does not include a day on which the Owner's Administration Building is open only for the purposes of conducting candidate filing, early voting, elections, or other special events.

§ 1.1.15.2 Calendar Day

A calendar day is a day on the Gregorian Calendar. The Contract Time is established in calendar days. Extensions of time granted, if any, will be converted to calendar days.

§ 1.1.15.3 Holidays

Owner-approved holidays for Contractor's Work are limited to New Year's Day, Memorial Day, Independence Day, Martin Luther King Day, Labor Day, Thanksgiving Day, and Christmas Day.

§ 1.1.15.4 Work Day

Work days are all calendar days except Holidays.

§ 1.1.15.5 Anticipated Weather Days

An allowance of regular Work Days, established as anticipated Work Days lost due to weather delays; said allowance shall be included in Contractor's proposed completion time. Only lost weather days in excess of Anticipated Weather Days shall be considered by Owner for time extensions based upon weather. Section 15.1.5.3 lists required Anticipated Weather Days.

§ 1.1.16 Contract Sum

"Contract Sum" shall have the same meaning as in Section 5.1 of the Agreement (A1332009), for the Project when the Project is a Construction Manager at Risk Project.

§ 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.

§ 1.2.1.2 During the course of the Work, should any conflict be found in or between the Contract Documents, the Contractor shall be deemed to have estimated the Work on the basis of the greater quantity or better quality, or the most stringent requirement, unless he shall have obtained an interpretation in writing from the Architect as to what shall govern before the submission of his Proposal. The Architect, in case of such conflict, may interpret or construe the documents so as to obtain the most substantial and complete performance of the Work consistent with the Contract Documents and reasonably inferable therefrom, in the best interest of Owner, and the Architect's interpretation shall be final. The terms and conditions of this clause shall not relieve any party of any other obligation under the Contract Documents.

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

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

§ 1.2.4 Relation Of Specifications And Drawings

General Requirements in the Specifications govern the execution of all Specifications. Summary paragraphs present a brief indication of the Work, but do not limit the Work as later detailed. The Drawings and Specifications are correlative and have equal authority and priority. Should the Drawings and Specifications have internal inconsistencies, then the Contractor shall base the bids and construction on the more expensive combination of quality and quantity of work indicated. For purposes of construction, the Architect shall determine the appropriate Work, after the Contractor brings the inconsistency to the Architect's attention. Failure to report an inconsistency shall be evidence that Contractor has elected to proceed in the more expensive manner.

§ 1.2.5 Materials, Equipment And Processes

Exact location and arrangement of the various pieces of equipment specified shall be determined with the approval of the Architect after equipment has been selected and/or as the Work progresses. All equipment shall, insofar as possible, be installed in such a manner as will not interfere with architectural or structural portions of the building. Where in the Drawings and Specifications, certain products, manufacturer's trade names, or catalog numbers are specified, it is done for the express purpose of establishing a standard of function, dimension, appearance, and quality of design in harmony with the Work, and is not intended for the purpose of limiting competition. Materials or equipment shall not be substituted unless the Architect has specifically accepted such substitution for use on this Project. When more than one material, process, or brand is specified for a particular item of Work, the choice shall be the Contractor's. The final selection of color and pattern will be made by the Owner from the range available within the option selected by the Contractor, unless the item is specified to match a specific color or sample furnished. Where particular items are specified, products of those named manufacturers are required unless Contractor submits for consideration proposed substitutions of materials, equipment or processes from those set out in the Contract Documents. Submittals of proposed substitutions should contain sufficient information to allow the Architect and Owner to determine if the proposed substitution is in fact equal to or better than the requirements in the Contract Documents. The Architect shall review and respond to proposed substitutions within fifteen (15) days of receipt. Contractor shall bear all risk caused by submitting substitutions, including all costs. The Owner may approve substitutions only when the substitution is clearly provided by the Contract to be equal in performance characteristics to the requirements of the Contract Documents, equally compatible with the existing installations and complementary to the architectural design for the Work. Certain specified construction and equipment details may not be regularly included as part of the named manufacturer's standard catalog equipment, but shall be obtained by the Contractor from the manufacturer as required for the proper evaluation and/or functioning of the equipment. Reasonable minor variations in equipment are expected and will be acceptable, if approved by the Architect and Owner, however, indicated and specified performance and material requirements are the minimum. The Owner and the Architect reserve the right to determine the equality of equipment and materials that deviate from any of the indicated and specified requirements.

§ 1.2.6 Standards and Requirements

When the Contract Documents refer to standards, building codes, manufacturers' instructions, or other documents, unless otherwise specified, then the current edition as of the date of execution of the Agreement by the last party to execute said Agreement shall apply. It shall be the responsibility of the Architect to address revisions or amendments to applicable codes or standards which arise after the date of execution of the Agreement and until Final Completion, pursuant to the terms of the Agreement between Owner and Architect. Requirements of public authorities apply as minimum requirements only and do not supersede more stringent specified requirements.

§ 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 All ownership rights, whether common law, statutory, or other reserved rights, including copyright ownership of the Construction Documents, are controlled by the Agreement between the Owner and the Architect. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Construction Documents. 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 any reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are granted a limited license to use and reproduce the Construction Documents provided to them, subject to any protocols established pursuant to Section 1.7, 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. All copies of the Construction Documents, except the Contractor's record set, shall be returned or suitably accounted for to the copyright holder upon completion of the Work.

§ 1.6 Notice

§ 1.6.1 Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice; or, if sent by electronic mail, to the email address of the Owner's or Contractor's designated representative, with electronic confirmation of receipt.

§ 1.6.2 Intentionally Deleted.

§ 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 Board of Education, by majority vote, is the only representative of the Owner, having the power to: enter into a contract; amend a contract, including but not limited to AIA Document A133 Exhibit A; approve changes in the scope of Work; approve and execute a Change Order or Construction Change Directive modifying the Contract Sum or Guaranteed Maximum Price; agree to an extension to the date of Substantial or Final Completion; or terminate a contract. The Board will act as soon as reasonably possible to avoid undue delays. The Board designates authorized representatives to act on its behalf for day-to-day operations under the Contract. Unless otherwise designated in the Contract Documents, Owner's authorized representative shall be the Superintendent of Schools, who may delegate responsibilities as appropriate. Owner's Board of Education hereby delegates to the Superintendent of Schools or designee the authority to approve changes to the Work where such changes are within the Owner's contingency or the Contractor's contingency or will not increase the dates for Substantial or Final Completion by more than thirty (30) days. Any such change shall be confirmed in writing between the Contractor and Owner's Superintendent or designee,

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and notice of such approved changes shall be given to the Board at its next regular meeting. Except as otherwise provided in the Contract Documents, the Architect does not have such authority. Neither Architect nor Contractor may rely upon the direction of any employee of Owner who has not been designated in writing by the Superintendent or Board of Education; Owner shall not be financially responsible for actions taken by the Architect or Contractor in reliance upon direction from unauthorized persons.

§ 2.1.2 It shall be distinctly understood that by virtue of this Contract, no mechanic, contractor, material person, artisan, or laborer, skilled or unskilled, shall ever in any manner have, claim, or acquire any lien upon the buildings or any of the improvements of whatsoever nature or kind so erected or to be erected by virtue of this Contract or upon any of the land on which said buildings or any of the improvements are so erected, built, or situated, such property belonging to a political subdivision of the State of Missouri. It shall be further understood that this Contract is not written for the benefit of third parties.

§ 2.1.3 The Owner shall require the Contractor and the Architect to meet periodically at mutually-agreed-upon intervals, for the purpose of establishing procedures to facilitate cooperation, communication, and timely responses among the participants. By participating in this arrangement, the parties do not intend to create additional contractual obligations or modify the legal relationships which may otherwise exist.

§ 2.1.4 The Owner may require that the Contractor use and/or respond to certain Owner-furnished forms or inquiries during the course of the Project. From time to time, there may be future revisions, changes, additions or deletions to these forms. The fact that the Owner modifies and increases reasonable reporting requirements shall not serve as the basis for a claim for additional time or compensation by the Contractor.

§ 2.1.5 Neither the Contractor nor the Owner have an affirmative duty to discover any design errors or omissions in the Drawings, Plans, Specifications and other Construction Documents but shall notify the other party upon the discovery of the same. By entering into the Contract Documents or any Agreement with any Architect, neither the Contractor nor the Owner warrants the adequacy and accuracy of any Drawings, Plans, Specifications or other Construction Documents.

§ 2.2 Evidence of the Owner's Financial Arrangements

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

(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 notify the Contractor if a successor architect has been employed by Owner 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. Other than the metes and bounds noted in the survey, if any, Owner does not guarantee or warrant the accuracy of surveys provided, including the locations of utility lines, cables, pipes or pipelines, or the presence or absence of easements. If the Contractor has reason to believe the information provided by the Owner is inaccurate, the Contractor shall notify the Owner and Architect in writing as soon as practicable. The Contractor must notify the Owner and Architect in writing of material differences between the actual conditions and the conditions as described in the above referenced information provided by the Owner resulting in additional costs before incurring such costs.

§ 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor at least one copy of the Construction Documents, as provided for in the Project Manual, for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

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

§ 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 written 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. The Architect shall, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's and other consultants additional services, if any, made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts then, 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 then, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

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

§ 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, activities of the Owner (or Owner's Program Manager, if applicable), or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.1.4 The Contractor represents and warrants the following to the Owner (in addition to the other representations and warranties contained in the Contract Documents), as an inducement to the Owner to execute this Contract, which representations and warranties shall survive the execution and delivery of the Contract and the Final Completion of the Work:

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- .1 that it is financially solvent, able to pay its debts as they mature, and possessed of sufficient working capital to complete the Work and perform its obligations under the Contract Documents;
- .2 that it is able to furnish the tools, materials, supplies, equipment and labor required to timely complete the Work and perform its obligations hereunder and has sufficient experience and competence to do so;
- .3 that it is authorized to do business in the State where the Project is located and properly licensed by all necessary governmental, public, and quasi-public authorities having jurisdiction over it, the Work, or the site of the Project; and
- .4 that the execution of the Contract and its performance thereof are within its duly-authorized powers.

§ 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. The Contractor represents and warrants by submission of a Proposal that he has carefully examined the Contract Documents, any soil test reports, drainage studies, geotechnical or other reports, and the site of the Work, and that, from his own investigations, he has satisfied himself as to the nature and location of the Work, the character, quality and quantity of surface and subsurface materials likely to be encountered, the character of equipment and other facilities needed for the performance of the Work, the general and local conditions and all other materials which may in any way affect the Work or its performance. Should the Contractor find discrepancies, omissions or conflicts within the Contract Documents, or be in doubt as to their meaning, the Contractor shall at once notify in writing the Architect and Owner, and Architect will issue a written addendum to all parties that is consistent with the Owner's Scope of the Work. The Contractor shall not be entitled to any additional time or compensation for Contractor's failure to visit the site, or for any additional Work caused by the Contractor's fault, by improper construction, or by Contractor's failure to visit the site or to carefully study and compare the Contract Documents prior to execution of the Work.

§ 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. Contractor shall not perform any Work involving an error, inconsistency, or omission without further instructions to Contractor or revised Construction Documents from the Architect.

§ 3.2.3 Neither the Owner nor the Contractor is 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 has knowledge that any of the products or systems specified will perform in a manner that will limit the Contractor's ability to satisfactorily perform the Work or to honor his warranty, or will result in a limitation of or interference with the Owner's intended use, then the Contractor shall promptly notify the Architect and Owner in writing, providing substantiation for his position. Any necessary changes, including substitution of materials, shall be accomplished by appropriate Modification. 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. Contractor shall take field measurements, verify field conditions, and shall carefully compare them to the Construction Documents. The Contractor shall not be liable to the Owner or Architect for damages resulting from errors,

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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 unless the Contractor recognized such error, inconsistency, omission or difference and failed to report it to the Architect. The Contractor shall not be entitled to additional compensation for additional Work caused by Contractor's failure to carefully study and compare the Construction Documents prior to the execution of the Work.

§ 3.2.5 Prior to performing any Work, and only if applicable, Contractor shall locate all utility lines as shown and located on the plans and specifications, including telephone company lines and cables, sewer lines, water pipes, gas lines, electrical lines, including, but not limited to, all buried pipelines and buried telephone cables, and shall perform any Work in such a manner so as to avoid damaging any such lines, cables, pipes, and pipelines. In addition, Contractor shall independently determine the location of same. Contractor shall be responsible for any damage done to such utility lines, cables, pipes and pipelines during its Work, and shall be responsible for any loss, damage, or extra expense resulting from such damage. Repairs shall be made immediately to restore all service. Any delay for such break shall be attributable to Contractor. In addition, and only if applicable, Contractor shall review the appropriate AHERA and hazardous materials surveys for the particular campuses involved in the Project, and shall notify all Subcontractors and Sub-subcontractors of the necessity to review said surveys. Contractor shall perform any Work in such a manner as to avoid damaging, exposing, or dislodging any asbestos-containing materials that are clearly identified and located in AHERA and other hazardous material surveys. Before performing any portion of the Work, the Contractor shall fully investigate all physical aspects of the Project Site and verify all dimensions, measurements, property lines, grades and elevations, existing improvements, and general suitability of existing conditions at the Project site. If applicable, Contractor shall comply with U.S. Environmental Protection Agency rules concerning renovating, repairing, or painting work in schools built prior to 1978 involving lead-based paint.

§ 3.2.6 Intentionally Deleted.

§ 3.2.7 The Contractor shall arrange meetings prior to commencement of the Work of all major Subcontractors to allow the Subcontractors to demonstrate an understanding of the Construction and Contract Documents to the Architect and to allow the Subcontractors to ask for interpretations, when necessary. The Contractor and each Subcontractor shall evaluate and satisfy themselves as to the conditions and limitations under which the Work is to be performed, including:

- .1 The location, condition, layout, drainage and nature of the Project site and surrounding areas;
- .2 Generally prevailing climatic conditions;
- .3 Anticipated labor supply and costs;
- .4 Availability and cost of materials, tools and equipment; and
- .5 Other similar issues.

§ 3.3 Supervision and Construction Procedures

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

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

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on behalf of, the Contractor or any of its Subcontractors. As part of that responsibility, Contractor shall enforce the Owner's alcohol-free, drug-free, tobacco-free, harassment-free and weapon-free policies and zones, which will require compliance with those policies and zones by Contractor's employees, subcontractors, and all other persons carrying out the Contract. Contractor shall require all construction workers, whether Contractor's own forces or the forces of Contractor's Subcontractors, while on Owner's property, to refrain from committing any criminal conduct, using tobacco products, possessing or drinking alcoholic beverages, possessing or using illegal drugs or any controlled substance, carrying or possessing weapons, speaking profane and/or offensive language, or engaging in any inappropriate interactions of any nature whatsoever with students and employees, including talking, touching, staring or otherwise contributing to a hostile or offensive environment for Owner's students and employees. All areas of campus, other than the defined construction area, shall be off limits to Contractor's forces, unless their work assignment specifies otherwise. Contractor shall also require adequate and appropriate dress and identification of Contractor's employees, Subcontractors, and all other persons carrying out the Work. Contractor shall require all construction workers, whether Contractor's own forces or the forces of Contractor's Subcontractors, to wear identification tags on the front of their persons during all times that they are on Owner's property. Such identification tags shall contain a current photograph and the worker's full name in a typeface large enough to be seen from a reasonable distance. The Contractor shall further ensure that no on-site fraternization shall occur between personnel under the Contractor's and Subcontractor's direct or indirect supervision and Owner's students or employees and the general public. Failure of an individual to adhere to these standards of conduct shall result in the immediate removal of the offending employee from all construction on any of Owner's property. Repeated removal of Contractor's or Subcontractor's forces, or one serious infraction, shall constitute a substantial breach of the Agreement justifying the immediate termination by Owner pursuant to Article 14. Contractor shall require all construction workers, whether Contractor's own forces or the forces of Subcontractors, to park their personal motor vehicles on Owner's property only in the parking places designated by the Owner's campus principal. Any vehicles not parked in the appropriate locations shall be towed at the vehicle owner's sole expense. Contractor shall follow, and shall require all employees, agents or Subcontractors to follow, the tree ordinance of the municipality in which the Project is located. In addition, if not covered by the municipal tree ordinance, Contractor shall barricade and protect all trees on the Project, which shall be included in the Cost of the Work. Contractor shall institute a theft deterrence program designed to restrict construction worker access to properties of Owner that are currently in use, to maintain supervision of Contractor's and Subcontractor's forces, and to reimburse the Owner or those persons suffering a theft loss which results from Contractor's forces or Subcontractor's forces' actions, omissions, or failure to secure the Work or connecting or adjacent property of Owner.

§ 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.

§ 3.3.4 The Contractor shall properly and efficiently coordinate the timing, scheduling and routing of all Work performed by all Subcontractors and sub-subcontractors.

§ 3.3.5 The Contractor shall review Subcontractor safety programs, procedures, and precautions in connection with performance of the Work. However, the Contractor's duties shall not relieve any Subcontractor(s) or any other person or entity (e.g., a supplier), including any person or entity with whom the Contractor does not have a contractual relationship, of their responsibility or liability relative to compliance with all applicable federal, state, and local laws, rules, regulations, and ordinances which shall include the obligation to provide for the safety of their employees, persons, and property and their requirements to maintain a work environment free of recognized hazards. The foregoing notwithstanding, the requirements of this Paragraph are not intended to impose upon the Contractor any additional obligations that the Contractor would not have under any applicable state or federal laws, including, but not limited to, any rules, regulations, or statutes pertaining to the Occupational Safety and Health Administration.

§ 3.3.6 It is understood and agreed that the relationship of Contractor to Owner shall be that of an independent contractor. Nothing contained in this Agreement or inferable from this Agreement shall be deemed or construed to: 1) make Contractor the agent, servant or employee of the Owner; or 2) create any partnership, joint venture, or other association between Owner and Contractor. Any direction or instruction by Owner or any of its authorized representatives in respect of the Work shall relate to the results the Owner desires to obtain from the Work, and shall in no way affect Contractor's independent contractor status.

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§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for qualified, careful, and efficient workers and labor eligible to work in accordance with state and federal law. Contractor shall appropriately classify all workers in accordance with the Fair Labor Standards Act, its implementing regulations, and state law. In addition, unless otherwise provided in the Contract documents, the Contractor shall provide and pay for 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. Before ordering any material or doing any Work, Contractor shall verify all dimensions and check all conditions in order to assure Contractor that they are the same as those in the Drawings, Specifications, and other Construction Documents. Any inconsistency shall be brought to the attention of the Architect. In the event that discrepancies occur between ordered material and actual conditions and Architect was not notified beforehand, then costs to correct such discrepancies shall be borne by Contractor.

§ 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.

§ 3.4.2.1 After evaluation by the Architect, substitutions and alternates may be rejected by the Architect without explanation and will be considered only under one or more of the following conditions: (i) the proposal is required for compliance with interpretation of code requirements or insurance regulations then existing; (ii) specified products are unavailable through no fault of the Contractor; (iii) and when, in the judgment of the Architect, a substitution would be substantially in the Owner's best interests, in terms of cost, time, or other considerations.

§ 3.4.2.2 The Contractor must submit to the Architect: (i) a full explanation of the proposed substitution and submittals of all supporting data, including technical information, catalog cuts, warranties, test results, installation instructions, operating procedures, and other like information necessary for a complete evaluation for the substitution; (ii) a written explanation of the reasons the substitution should be considered, including the benefits to the Owner and the Work in the event the substitution is acceptable; (iii) the adjustment, if any, in the Contract Sum; (iv) the adjustment, if any, in the time of completion of the Contract and the construction schedule; and (v) a statement that (a) the proposed substitution conforms to and meets all requirements of the pertinent Specifications and the requirements shown on the Drawings, and (b) the Contractor accepts the warranty and will coordinate the Work to be complete in all respects, as if originally specified by the Architect. Proposals for substitutions shall be submitted in writing to the Architect in sufficient time to allow the Architect no less than fifteen (15) working days for review. No substitutions will be considered or allowed without the Contractor's submittals of complete substantiating data and information.

§ 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. Contractor shall not employ persons to carry out the Work to which Owner makes reasonable written objection. THE CONTRACTOR RELEASES, INDEMNIFIES, AND HOLDS HARMLESS THE OWNER FOR CONTRACTOR'S FORCES' NON-COMPLIANCE WITH OWNER'S DRUG-FREE, ALCOHOL-FREE, WEAPON-FREE, HARASSMENT-FREE, AND TOBACCO-FREE ZONES, CONTRACTOR'S FORCES' NON-COMPLIANCE WITH CRIMINAL LAW, OR CONTRACTOR'S FORCES' NON-COMPLIANCE WITH IMMIGRATION LAW OR REGULATIONS. Any individual found by Owner to have violated these restrictions is subject to permanent removal from the Project, at Owner's request. Contractor shall place similar language in its subcontract agreements, requiring its Subcontractors and Sub-subcontractors to be responsible for their own forces and Contractor shall cooperate with the Owner to ensure Subcontractor and Sub-subcontractor compliance.

§ 3.4.4 Prior to commencement of the work, the Contractor and Architect shall provide to the Owner a sworn affidavit and other sufficient documentation to affirm the Contractor's and Architect's enrollment and participation in the Federal Work Authorization Program. Federal Work Authorization Program means the eVerify program maintained and operated by the United States Department of Homeland Security and the Social Security Administration, or any successor program. The Contractor and Architect shall also provide the Owner sworn affidavits affirming that the Contractor and Architect do not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

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§ 3.4.5 Contractor must give advance written notice to the Owner if the Contractor or an owner or operator of the Contractor has been convicted of a felony. The Owner may terminate this Agreement if the Owner determines that the Contractor failed to give such notice or misrepresented the conduct resulting in the conviction. This paragraph requiring advance notice does not apply to a publicly-held corporation.

§ 3.4.5.1 Contractor, Subcontractors and sub-subcontractors shall pay all workers not less than the general prevailing rate of per diem wages for work of a similar character where the Project is located. Wages listed are minimum rates only. However, no claims for additional compensation above the Contract Sum shall be considered by the Owner because of payments of wage rates in excess of the applicable rate provided herein.

§ 3.4.5.3 Owner reserves the right to receive and review payroll records, payment records, and earning statements of employees of Contractor, and of Contractor's Subcontractors and Sub-subcontractors.

§ 3.4.5.4 In executing the Work under the Contract Documents, Contractor shall comply with all applicable state and federal laws, including but not limited to, laws concerned with labor, equal employment opportunity, safety and minimum wages.

§ 3.4.5.5 If no schedule is attached, then the parties shall use the wage rate determined by the US Department of Labor in accordance with the Davis-Bacon Act, 40 U.S.C. Section 276a, (which can be accessed on the internet at <https://www.wdol.gov/> or <https://beta.sam.gov/>) effective as of the date of this Agreement.

§ 3.4.6 Criminal History Checks

§ 3.4.6.1 Contractor shall obtain all criminal history information required regarding its "covered employees", as defined below. Contractor is required to obtain the information from the Fingerprint-based Missouri Automated Criminal History Site and Contractor will also subscribe to that person's criminal history record information. Before beginning any Work on the Project, Contractor will provide written certification to the Owner that Contractor has complied with the statutory requirements as of that date. Upon request by Owner, Contractor will provide, in writing: updated certifications and the names and any other requested information regarding covered employees, so that the Owner may obtain criminal history record information on the covered employees. Contractor shall assume all expenses associated with obtaining criminal history record information.

§ 3.4.6.2 Contractor will not assign any "covered employee" with a "disqualifying criminal history", as those terms are defined below, to work on the Project. If Contractor receives information that a covered employee has a reported disqualifying criminal history, then Contractor will immediately remove the covered employee from the Project and notify the Owner in writing within three business days. If the Owner objects to the assignment of any covered employee on the basis of the covered employee's criminal history record information, then Contractor agrees to discontinue using that covered employee to provide services on Owner's Project. If Contractor has taken precautions or imposed conditions to ensure that the employees of Contractor and any Subcontractor will not become covered employees, Contractor will ensure that these precautions or conditions continue throughout the time the contracted services are provided.

§ 3.4.6.3 For the purposes of this Section, "covered employees" means employees, agents or applicants of Contractor who has or will have continuing duties related to the services to be performed on Owner's Project and has or will have direct contact with Owner's students. The Owner will decide what constitutes direct contact with Owner's students. "Disqualifying criminal history" means: any conviction or other criminal history information designated by the Owner; any felony or misdemeanor conviction that would disqualify a person from obtaining educator certification under Missouri law; or one of the following offenses, if at the time of the offense, the victim was under 18 years of age or enrolled in a public school: a felony offense under the Missouri Penal Code; an offense for which a defendant is required to register as a sex offender under Missouri law; or an equivalent offense under federal law or the laws of another state.

§ 3.4.6.4 Subcontractors or any subcontractor entity shall be required by the terms of their contract with Contractor or any other contracting entity to obtain the required criminal history record information on their employees, agents, or

applicants, to give required certifications to Owner and the contracting entities, and to obtain required certifications from the subcontracting entity's subcontractors.

§ 3.4.6.5 On request of Owner, Contractor shall provide all necessary identifying information to allow Owner to obtain criminal history record information for covered employees of the Contractor and all subcontractors. Contractor shall update this list on Owner's request.

§ 3.4.7 Owner's Additional Requirements Related to Criminal Histories

In addition, Contractor will at least annually obtain criminal history record information that relates to any employee, agent, or applicant of the Contractor, if the person has or will have duties related to the Project, and the duties are or will be performed on Owner's Project, or at another location where students are likely to be present. Contractor shall assume all expenses associated with the background checks and shall immediately remove any employee, agent or Subcontractor who was convicted of a felony or a misdemeanor involving moral turpitude from Owner's property, or other location where students are likely to be present. Owner shall determine what constitutes "moral turpitude" or a "location where students are likely to be present."

§ 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. The Contractor further warrants that Contractor shall perform the Work in a good and workmanlike manner, continuously and diligently in accordance with generally accepted standards of construction practice for construction of projects similar to the Project, except to the extent the Contract Documents expressly specify a higher degree of finish or workmanship, in which case the standard shall be the higher standard. All material shall be installed in a true and straight alignment, level and plumb; patterns shall be uniform; and jointing of materials shall be flush and level, unless otherwise directed in writing by the Architect. 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 (unless such maintenance is Contractor's responsibility), improper operation, or normal wear and tear and normal usage, but such exclusions shall only apply after Owner has taken occupancy of the damaged or defective point of the Project. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. Notwithstanding anything in the Contract Documents to the contrary, Owner and Contractor expressly agree that the warranties stated herein shall mean the individual warranties associated with each particular Work within the Project, and each such individual warranty shall run from the applicable Work's Final Completion date (unless otherwise expressly provided in the applicable Contract Documents for that particular Work). Contractor's express warranty is in addition to, and not in lieu of, Owner's other available remedies. All required warranties on equipment, machinery, materials, or components shall be submitted to the Architect on the manufacturer's or supplier's approved forms for delivery to the Owner. The warranties set out in this Subparagraph are not exclusive of any other warranties or guarantees set out in other places in the Contract Documents or expressed or implied under applicable law.

§ 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.

§ 3.5.3 In the event of failure of materials, products, or workmanship, either during construction or the warranty period, the Contractor shall take appropriate measures to ensure correction of defective Work or replacement of the defective items, without cost to the Owner. Such warranty shall be maintained notwithstanding that certain systems may be activated prior to Substantial Completion as required for the satisfactory completion of the Project. Upon written notice from the Owner or Architect, the Contractor shall promptly remedy defects as covered by Contractor's warranty. If Contractor does not respond to the written notice, either by beginning corrective work or notifying Owner in writing regarding when corrective work will begin, within ten days of Contractor's receipt of the written notice, then the Owner may take measures to correct the Work and Contractor will be obligated to reimburse Owner's costs. The provisions of this subparagraph shall be in addition to, and not in lieu of, any other rights and remedies available to the Owner.

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§ 3.5.4 When deemed necessary by the Owner and prior to installation of any item specifically made subject to a performance standard or regulatory agency standard under any provision of the Contract Documents, Contractor shall furnish proof of conformance to the Architect. Proof of conformance shall be in the form of:

- .1 an affidavit from the manufacturer certifying that the item is in conformance with the applicable standards; or
- .2 an affidavit from a testing laboratory certifying that the product has been tested within the past year and is in conformance with the applicable standards; or
- .3 such further reasonable proof as is required by the Architect.

§ 3.5.5 The Contractor agrees to issue in the name of the Owner, or assign to the Owner at Final Completion of the Work, such assignment to be effective no later than Final Completion, any and all material, equipment, fixtures and furniture (if supplied or installed by Contractor or its Subcontractors), other special warranties, and manufacturers' warranties relating to materials and labor used in the Work. Contractor further agrees to perform the Work in such manner so as to preserve any and all manufacturers' warranties. All forms will be required to be submitted prior to Final Payment.

§ 3.5.6 The warranties of Contractor provided in Subparagraphs 3.5.1, 3.5.2, and 3.5.3 shall in no way limit or abridge the warranties of the suppliers of equipment and systems which are to comprise a portion of the Work and all such warranties shall be in form and substance as required by the Contract Documents. Contractor shall take no action or fail to act in any way which results in the termination or expiration of such third party warranties or which otherwise results in prejudice to the rights of Owner under such warranties. Contractor agrees to provide all notices required for the effectiveness of such warranties.

§ 3.5.7 Contractor shall maintain a complete and accurate schedule of the date(s) of Substantial Completion, the date(s) of Final Completion, and the dates upon which the warranty under Section 12.2 herein on each phase or building will expire. Contractor shall provide a copy of such schedules to Owner and Architect. Prior to termination of the warranty period under Section 12.2 herein, Contractor shall accompany Owner and Architect on re-inspection of each Work in the Project and Contractor shall be responsible for correcting any warranty items which are observed or reported during the warranty period under Section 12.2 herein. Contractor shall prosecute such warranty work under Section 12.2 herein without interruption until accepted by Owner and Architect, even though such work should extend beyond the warranty period under Section 12.2 herein. If Contractor fails to provide the schedules to Owner and Architect, Contractor's warranty obligation described herein shall continue until such inspection is conducted and deficiencies are corrected.

§ 3.5.8 Prior to receipt of Final Payment, Contractor shall:

- .1 Obtain duplicate original warranties, executed by all Subcontractors, making the dates of beginning of the warranties the Date of Final Completion; and the warranties of suppliers and manufacturers, making the dates of beginning of the warranties no later than the Date of Final Completion;
- .2 Verify that the documents are in proper form and contain full information;
- .3 Co-sign warranties when required;
- .4 Bind all warranties in commercial quality 8-1/2 X 11 inch three-ring binder, with hardback, cleanable, plastic covers;
- .5 Label the cover of each binder with a typed or printed title labeled "WARRANTIES", along with the title of the Project; name, address and telephone number of Contractor; and name of its responsible principal;
- .6 Include a Table of Contents, with each item identified by the number and title of the specification section under which the product is specified;

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- .7 Separate each warranty with index tab sheets keyed to the Table of Contents listing; and
 - .8 Deliver warranties and bonds in the form described above, to the Architect who will review same prior to submission to the Owner.

§ 3.6 Taxes

Owner is a tax-exempt public entity. Owner shall provide Contractor with evidence with said exemption for use on this Project. CONTRACTOR HEREBY RELEASES, INDEMNIFIES, AND HOLDS HARMLESS OWNER FROM ANY AND ALL CLAIMS AND DEMANDS MADE AS A RESULT OF THE FAILURE OF CONTRACTOR TO COMPLY WITH THE PROVISIONS OF ANY OR ALL LAWS AND REGULATIONS RELATING TO OWNER'S TAX EXEMPT STATUS AND THE TAX EXEMPT STATUS OF THE PROJECT.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

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

§ 3.7.1.1 The Owner shall pay directly to the governing authority the cost of all permanent property utility assessments and similar connection charges.

§ 3.7.1.2 The Contractor shall pay, as an allowable Cost of the Work, directly all temporary utility charges, tap charges, and water meter charges, without reimbursement from Owner. After consultation with the Owner, the Contractor shall also obtain all permits and approvals, and pay all fees and expenses, if any, associated with National Pollutant Discharge Elimination System (NPDES) regulations administered by the Environmental Protection Agency (EPA) and local authorities, if applicable, that require completion of documentation and/or acquisition of a "Land Disturbing Activities Permit" for the Project. Also, after consultation with the Owner, the Contractor shall obtain all permits and approvals. Contractor's obligations under this Section may or may not require it to obtain or perform engineering services during the pre-construction phase to prepare proper drainage for the construction sites. Any drainage alterations made by Contractor during the construction process, which require the issuance of a permit, shall be at Contractor's sole cost. Reimbursable expenses shall not include any fines or penalties assessed against the Contractor, Subcontractors, the Project, or the Owner.

§ 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, and Owner's written policies, applicable to performance of the Work. In addition, Contractor shall authorize posting of any notices concerning the Workers Compensation insurance carried by other parties involved in the Project, including without limitation, Architect, at the same location where Contractor posts notices regarding Workers Compensation. If applicable, the Contractor shall procure and obtain all bonds required of the Owner or the Contractor by the municipality in which the Project is located or by any other public or private body with jurisdiction over the Project. In connection with such bonds, the Contractor shall prepare all applications, supply all necessary back-up material and furnish the surety with any required personal undertakings. The Contractor shall also obtain and pay all charges for all approvals for street closings, traffic control, parking meter removal and other similar matters as may be necessary or appropriate from time to time for the performance of the Work.

§ 3.7.3 If the Contractor performs Work when Contractor knows or reasonably should have known it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, the Contract Documents, 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 less than five (5) business days after first observance of the conditions. Contractor agrees that this is a reasonable notice requirement. Contractor

waives any claim for additional cost or time if it fails to comply with this notice provision. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially report findings and a recommended resolution in writing to Owner and Contractor. If Owner's Board of Education and Contractor cannot agree on an equitable adjustment to the Contract Sum or Contract time, then either party may pursue alternative dispute resolution as provided for in Article 15 within ninety (90) days of the Architect's recommendation. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect in writing. 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.

§ 3.7.6 The Contractor shall be responsible for timely notification to and coordination with all utility companies regarding the provision of services to the Project. The Contractor shall inform the Architect at once when the Owner's participation is required, and the Architect shall immediately notify the Owner. Connections for temporary and permanent utilities and payment for temporary utilities services required for the Work, whether the Work is new construction or renovation of an existing facility, are the responsibility of the Contractor unless otherwise agreed. If the Work is new construction, then payment for temporary and/or permanent utility services shall be the responsibility of the Contractor until Substantial Completion.

§ 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, unless required to do so by the terms of the Construction Documents.

§ 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 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, unless required to do so by the terms of the Construction Documents shall be adjusted accordingly. The amount of the adjustment 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. In addition, the Contractor may employ a project manager and necessary assistants who may supervise several Project sites. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. Important communications shall be similarly confirmed in writing. Other communications shall be similarly confirmed on written request in each case. Questions about plan interpretation or directions shall be submitted to the Architect in the form of a written request for information and the Architect shall respond to such request for information in a reasonable and timely fashion. Contractor's selection of project manager or superintendent(s) shall be approved by Owner, and Contractor shall not replace the project manager or superintendent(s) without Owner's consent or until a replacement project manager or superintendent(s) has been selected in accordance with this Section. The Owner may

reject or require removal of any job superintendent, project manager or employee of the Contractor, Subcontractor or Sub-Subcontractor involved in the Project. Contractor shall provide an adequate staff for the proper coordination and expedition of the Work. Owner reserves the right to require Contractor to dismiss from the Work any employee or employees that Owner may deem incompetent, careless, insubordinate, or in violation of any provision in these Contract Documents. This provision is applicable to Subcontractors, Sub-Subcontractors and their employees.

§ 3.9.2 Intentionally Deleted.

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

§ 3.9.4 Owner shall be notified not less than 24 hours before any time that superintendent will not be present at the site for any reason except periodic illness. If the reason is due to illness, then Owner shall be notified at the beginning of that day. Owner shall be notified of the identity of the acting superintendent. In the event the superintendent is absent from the site and notice has not been provided nor has an acting superintendent been assigned to the Work, then an amount equal to the superintendent's daily rate shall be deducted from the amount owed to the Contractor under general conditions for such day.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall prepare and 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. The schedule shall not interfere with the operation of Owner's existing facilities and operations without Owner's prior written approval.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect 10 working days to review and return the submittals unless earlier required by the Contractor for the timely completion of the Work.

§ 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 The Contractor shall hold weekly progress meetings at the Project Site or Contractor's or Owner's office(s), or at such other time and frequency as are acceptable to the Owner. Progress of the work shall be reported at said meetings with reference to Contractor's construction schedule. The Contractor shall submit to the Architect with each monthly application for payment a copy of the progress schedule showing all modifications required, and shall take whatever corrective action is necessary to assure that the project completion schedule is met at no additional cost to Owner, except as allowed herein. In the event that Contractor shall fall behind schedule at any time, Contractor shall develop and deliver a recovery plan to the Owner with a recovery schedule and a program describing the additional manpower, overtime, material expediting, resequencing of the Work and other steps Contractor shall take to meet the requirements of the Contract. Contractor shall not be entitled to compensation from the Owner or any increase in the Contract Sum for schedule recovery efforts unless otherwise provided herein. No approval or consent by the Owner of any plan for resequencing or acceleration of the Work submitted by Contractor shall constitute a waiver by Owner of any damages or losses which Owner may suffer by reason of such resequencing or the failure of Contractor to meet the Substantial Completion Date or the Final Completion Date.

§ 3.11 Documents and Samples at the Site

The Contractor shall maintain and make available at all times, at the Project site or home office, the Construction Documents, including Change Orders, Construction Change Directives, field test records (including environmental inspection and test records), inspection certificates or records, manufacturers' certificates, 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, at all times, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.11.1 In addition to any other requirement in the Contract Documents and prior to installation, Contractor shall furnish or cause a Subcontractor to furnish, for the Owner's and Architect's written approval, a physical sample of each specified item, product, fixture, or device which is visible by the general public and/or attached to an architecturally-finished surface. Samples shall be suitably labeled, adequately protected, and properly stored at the site. Samples which are approved and undamaged will be considered suitable for incorporation into the Work.

§ 3.12 Shop Drawings, Product Data and Samples

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

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

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

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

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

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. Specific dimensions, quantities, installation and performance of equipment and systems in compliance with the Construction Documents and the Contract Documents remain the Contractor's responsibility.

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

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

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

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

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy, completeness and accuracy of the services, certifications, and approvals performed or provided by such design professionals. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. A registered architect and a registered engineer must prepare plans and specifications for all the Work, as governed by Missouri law. In the event that Contractor retains a licensed design professional under the terms of this paragraph, Contractor shall require that the licensed design professional carry commercial general liability and errors and omissions insurance coverage in the same amounts and forms as required of the Architect on this Project. In the event that the licensed design professional retained by the Contractor will be conducting on-site services or observations, the licensed design professional shall also carry worker's compensation insurance and comprehensive automobile liability in the same amounts and forms as required of the Architect on this Project.

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

§ 3.12.10.3 The Contractor represents and warrants that all shop drawings shall be prepared by persons and entities possessing expertise and experience in the trade for which the shop drawings are prepared and, if required by the Architect or applicable law, by a licensed engineer.

§ 3.12.11 The Contractor shall submit complete drawings, data and samples to the Architect pursuant to the submittal schedule as agreed upon by and between the Contractor, Architect and Owner prior to commencement of the Work.

§ 3.12.12 The Contractor shall submit the number of copies of product data and samples which the Contractor and Subcontractors need for their use, plus two additional sets for the Architect, one additional set for the Owner and one additional set for each of the Architect's consultants involved with the particular section of Work. Where shop drawings are involved, the Contractor shall submit one high quality reproducible transparency and one opaque print of the shop drawing for the Architect, plus one additional opaque print for each of the Architect's consultants involved with the particular section of Work. The reproducible transparency will be marked by the Architect and/or his consultants. After final review and correction of the submittal, the Contractor shall send one corrected set to the Architect and each of the Architect's consultants involved with the particular section of Work.

§ 3.12.13 The Architect's review of Contractor's submittals shall be limited to examination of an initial submittal and one (1) re-submittal. The Architect's review of additional submittals will be made only with the consent of the Owner after notification by the Architect.

§ 3.12.14 The Contractor represents and warrants that all shop drawings shall be prepared by persons and entities possessing expertise and experience in the trade for which the shop drawings are prepared and, if required by the Architect or applicable law, by a licensed engineer.

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§ 3.13 Use of Site

§ 3.13.1 The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, Owner's written Board Policies, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.13.2 Contractor shall ensure that the Work, at all times, is performed in a manner that affords Owner reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. The Work shall be performed in such a manner that public areas adjacent to the Site of the Work shall be free from all debris, building material and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract Documents, Contractors shall use its best efforts to minimize any interference with the occupancy or beneficial use of any area or building adjacent to the site of the Work, or the building, in the event of partial occupancy.

§ 3.13.3 Only materials and equipment which are to be used directly in the Work shall be brought to and stored on the Project site by the Contractor. After equipment is no longer required for the Work, it shall be promptly removed from the Project site. Protection of construction material and equipment stored at the Project site from weather, theft, damage and all other adversity is solely the responsibility of the Contractor.

§ 3.13.4 The Contractor and its Subcontractors shall not erect any sign on the Project site without the prior written consent of the Owner.

§ 3.13.5 Contractor shall ensure that the Work, at all times, is performed in a manner that affords Owner reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. The Work shall be performed in such a manner that public areas adjacent to the Site of the Work shall be free from all debris, building material and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Construction Documents, Contractor shall use its best efforts to minimize any interference with the occupancy or beneficial use of any area or building adjacent to the site of the Work, or the building, in the event of partial occupancy.

§ 3.13.6 Without prior approval of the Owner, the Contractor shall not permit any workers to use any existing facilities at the Project site, including, without limitation, lavatories, toilets, entrance and parking areas other than those designated by the Owner. The Contractor shall comply with all rules and regulations promulgated by the Owner in connection with the use and occupancy of the Project site and the Building.

§ 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, provided, however, that any such cutting, fitting or patching can only be performed if the cutting, fitting or patching results in Work that is in accordance with the Construction Documents and Contract Documents. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

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

§ 3.14.3 No cutting of structural elements will be permitted unless specifically approved in writing by Architect. Fitting and patching shall only be done with new products, and shall only be performed by those skilled in performing the original Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall, on a daily basis, keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. Contractor shall provide on-site containers for the collection of waste materials, debris and rubbish, and shall periodically remove waste materials, debris and rubbish from the Work and dispose of all such materials at legal disposal areas away from the site. All cleaning operations shall be scheduled so as to ensure that contaminants resulting from the cleaning process will not fall on newly-coated or newly-painted surfaces. Immediately after unpacking materials, all packing case lumber or other packing materials,

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wrapping or other like flammable waste shall be collected and removed from the building and premises. 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. Care shall be taken by all workers not to mark, soil, or otherwise deface any finish. In the event that any finish becomes defaced in any way by mechanics or workers, the Contractor or any of his Subcontractors shall clean and restore such surfaces to their original condition.

§ 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.

§ 3.15.3 The Contractor shall be responsible for the protection of the Work. Prior to the Architect's inspection for Substantial Completion, the Contractor shall clean exterior and interior surfaces exposed to view; remove temporary labels, stains, putty, soil, paint and foreign substances from all surfaces, including glass and painted surfaces; polish transparent and glossy surfaces; clean equipment and fixtures to a sanitary condition; replace air filters in mechanical equipment; clean roofs, gutters, and downspouts; remove obstructions and flush debris from drainage systems; clean site; sweep paved areas and rake clean other surfaces; remove trash and surplus materials from the site; clean and polish all floors; clean and polish all hardware; and repair all Work damaged during cleaning.

§ 3.15.4 After construction is complete, Contractor shall: (1) employ skilled workers for final cleaning; (2) remove grease, mastic adhesive, dust, dirt, stains, fingerprints, labels and other foreign materials from all sight-exposed interior and exterior surfaces; (3) wash and shine glazing and mirrors; (4) polish glossy surfaces to a clear shine; (5) vacuum clean carpeted and similar soft surfaces; (6) clean (damp mop with clean mop and water) resilient and hard surface floors repeating as necessary until no visible residue remains on floors; (7) clean plumbing fixtures to a sanitary condition; (8) clean surfaces of all equipment and remove excess lubrication; (9) clean permanent filters and replace disposable filters in ventilating systems if units were operated during construction and clean ducts, blowers and coils; (10) clean light fixtures; (11) remove waste, foreign matter and debris from roofs, gutters, area ways and drainage ways; (12) remove waste, debris and surplus materials from the site; (13) remove stains, spills and foreign substances from paved areas; and (14) broom clean exterior concrete and paved surfaces and rake clean the grounds.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect and their designated representatives with access to the Work in preparation and progress wherever located. The Owner and Architect and each of their employees, consultants, separate contractors, and invitees agree to abide by Contractor's site safety rules and directives. The presence of the Owner, Architect or their representatives does not constitute acceptance or approval of the Work.

§ 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, SHALL WAIVE AND RELEASE CLAIMS AGAINST THE OWNER AND ARCHITECT, AND SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER FROM LOSS ON ACCOUNT THEREOF, PROVIDED, HOWEVER, CONTRACTOR SHALL NOT BE RESPONSIBLE TO OWNER IF OWNER REQUIRES A PARTICULAR DESIGN, PROCESS OR PRODUCT THAT CONSTITUTES A COPYRIGHT VIOLATION. 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.

§ 3.18 Indemnification

§ 3.18.1

The Contractor shall pay all royalties and license fees. THE CONTRACTOR SHALL DEFEND SUITS OR CLAIMS FOR INFRINGEMENT OF COPYRIGHTS AND PATENT RIGHTS, SHALL WAIVE AND RELEASE CLAIMS AGAINST THE OWNER AND ARCHITECT, AND SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER FROM LOSS ON ACCOUNT THEREOF, PROVIDED, HOWEVER, CONTRACTOR SHALL NOT BE RESPONSIBLE TO ARCHITECT FOR SUCH 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 ARCHITECT, AND SHALL NOT BE RESPONSIBLE TO OWNER IF OWNER REQUIRES A PARTICULAR DESIGN, PROCESS OR

PRODUCT THAT CONSTITUTES A COPYRIGHT VIOLATION. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Owner and Architect in writing. 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.

§ 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 INSURANCE POLICIES WORKERS' COMPENSATION ACTS, DISABILITY BENEFIT ACTS, OR OTHER EMPLOYEE BENEFIT ACTS.

§ 3.18.3 THE OBLIGATIONS OF THE CONTRACTOR UNDER THIS SECTION 3.18 SHALL NOT EXTEND TO THE LIABILITY OF THE ARCHITECT, THE ARCHITECT'S CONSULTANTS, AND AGENTS AND EMPLOYEES OF ANY OF THEM, CAUSED BY OR RESULTING FROM: (1) DEFECTS IN PLANS, DESIGNS, OR SPECIFICATIONS PREPARED, APPROVED, OR USED BY THE ARCHITECT OR ENGINEER; OR (2) NEGLIGENCE OF THE ARCHITECT OR ENGINEER IN THE RENDITION OR CONDUCT OF PROFESSIONAL DUTIES CALLED FOR OR ARISING OUT OF THE CONSTRUCTION CONTRACT AND THE PLANS, DESIGNS, OR SPECIFICATIONS THAT ARE A PART OF THE CONSTRUCTION CONTRACT; AND (3) ARISING FROM : (A) PERSONAL INJURY OR DEATH; (B) PROPERTY DAMAGE; OR (C) ANY OTHER EXPENSE THAT ARISES FROM PERSONAL INJURY, DEATH, OR PROPERTY DAMAGE, OR AS OTHERWISE LIMITED BY LAW.

§ 3.18.4 THE OWNER MAY CAUSE ANY OTHER CONTRACTOR WHO MAY HAVE A CONTRACT WITH THE OWNER TO PERFORM CONSTRUCTION OR INSTALLATION WORK IN THE AREAS WHERE WORK WILL BE PERFORMED UNDER THIS AGREEMENT, TO AGREE TO INDEMNIFY AND TO HOLD THE OWNER AND THE CONTRACTOR HARMLESS FROM ALL CLAIMS FOR BODILY INJURY AND PROPERTY DAMAGE TO THE SAME EXTENT AS IS PROVIDED IN SECTION 3.18.1 ABOVE. LIKEWISE, CONTRACTOR AGREES TO INDEMNIFY AND TO HOLD THE OWNER'S OTHER CONTRACTORS HARMLESS FROM ALL CLAIMS FOR BODILY INJURY AND PROPERTY DAMAGE TO THE SAME EXTENT AS PROVIDED IN SECTION 3.18.1 ABOVE

§ 3.18.5 THE PROVISIONS OF SECTION 3.18 IN ITS ENTIRETY SHALL SURVIVE THE COMPLETION, TERMINATION, OR EXPIRATION OF THIS CONTRACT.

§ 3.18.6 It is agreed with respect to any legal limitations now or hereafter in effect and affecting the validity or enforceability of the indemnification obligations under Paragraph 3.18, such legal limitations are made a part of the indemnification obligation and shall operate to amend the indemnification obligation to the minimum extent necessary to bring the provision into conformity with the requirements of such limitations, and as so modified, the indemnification obligations shall continue in full force and effect.

§ 3.18.7 It is understood and agreed that Subparagraph 3.18.1 above is subject to, and expressly limited by, the terms and conditions of R.S.Mo. § 434.100, as amended.

§ 3.19 ANTITRUST VIOLATION. To permit the Owner to recover damages suffered in antitrust violations, Contractor hereby assigns to Owner any and all claims for overcharges associated with this Contract which violate the antitrust laws of the United States, 15 U.S.C.A. Section 1 et seq. The Contractor shall include this provision in its agreements with each subcontractor and supplier. Each subcontractor shall include such provisions in agreements with sub-subcontractors and suppliers.

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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.

§ 4.1.3 Throughout the term of this Agreement, the Architect shall fully comply with all applicable laws and ordinances and the applicable orders, rules, regulations and requirements of all federal, state and municipal governments and appropriate administrative officers and agencies having jurisdiction over the Project, including the policies of the Board of Education of Owner.

§ 4.1.4 Except as expressly provided herein, the Contractor shall not be relieved of Contractor's obligation to perform the Work in strict accordance with the Construction Documents and the Contract documents by the duties, responsibilities, or activities of the Architect.

§ 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 final payment is due, and, with the Owner's concurrence, from time to time during the one-year period for correction of Work described in Section 12.2.2. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, or as they may be amended in the future.

§ 4.2.2 Architect shall visit the site at least twice per week (or more per week when deemed necessary by the Owner's Superintendent or when necessary to protect Owner's interests) and at other intervals appropriate to the stage of construction, to inspect the progress, quantity and quality of the work completed, to reject any observed nonconforming Work, and to determine if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Construction Documents and the Contract Documents and on time. Furthermore, a minimum of two job site meetings per month from commencement of construction through Final Completion will be initiated by the Architect and attended by the Contractor. Attendees will include the Owner, the Contractor's project manager and/or superintendent, Architect's project representative, and Architect. The Architect, Owner and their representatives shall at all times have access to the Work. Architect or its structural consultant will provide on-site observations prior to and during all concrete pours that contribute to the structural integrity of the building, including all pours of concrete piers, footings, grade beams, floor slabs, and concrete superstructure components, if applicable. In addition, Architect or its structural consultant will provide on-site observations prior to covering up or closing up of portions of the construction which, if covered, would conceal problems with the structural integrity of the Project. Contractor shall not close or cover said Work until said observations have occurred. Contractor or Architect will advise Owner of the need for any third-party laboratory or testing services to assist the Architect and Owner. On the basis of the on-site observations by Architect, Architect shall keep Owner and Contractor informed of the progress and quality of the Work, through Architect's field reports, and shall guard Owner against defects and deficiencies in the Work. Architect shall promptly notify Owner and Contractor orally regarding any defect or nonconforming Work, which shall be followed by notice in writing of defects or nonconforming Work noted and corrective actions taken or recommended. The Architect, however, shall not have control over or responsibility for the Contractor's construction means, methods, techniques, sequences, procedures, or safety programs, but this does not relieve Architect of Architect's responsibilities under this Agreement. Any services by Contractor made necessary by Contractor's construction defect or nonconforming Work shall be performed at no additional cost to Owner.

§ 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 Contractor shall reimburse the Owner for compensation paid to the Architect for additional site visits made necessary by the fault, neglect, or request of the Contractor. 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 Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the Contract. However, Owner reserves the right to communicate directly with the Contractor. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner.

§ 4.2.5 As further provided in the Contract Documents, each Contractor or Subcontractor shall be required to completely familiarize itself with the plans and specifications, to visit the Work site to completely familiarize itself with existing conditions, and to conduct any other appropriate investigations, inspections or inquiries prior to submission of a bid or proposal. No increases in Contract Sums or Guaranteed Maximum Price shall be allowed for failure to so inspect or investigate.

§ 4.2.6 The Architect shall reject Work that does not conform to the Construction Documents and the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will recommend to Owner additional inspection or testing of the Work in accordance with the provisions of the Contract Documents, 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 or the Owner to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work. Architect and/or Contractor shall promptly notify, orally and in writing, the other party and Owner of any fault or defect in the Project or nonconformance with Construction Documents or the Contract Documents they may respectively discover and each, upon discovery of the defect or nonconformance, shall be responsible for notifying the other party and Owner of those corrective actions they respectively take; provided, however, Contractor shall have no duty to notify Owner of discoveries made or actions taken by Architect. Testing or inspections required by this subparagraph shall be conducted subject to the requirements of Missouri law, if any.

§ 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 Construction Documents and the Contract Documents. The Architect's action will be taken with such reasonable promptness as to cause no delay in the Work or in the activities of the Owner, Contractor, or Separate Contractors 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 of equipment or systems, which remain the responsibility of the Contractor as required by the Construction Documents and 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. If any submittal does not comply with the requirements of the Construction Documents or the Contract Documents, then Architect shall require Contractor to come into compliance. The Architect shall promptly report in writing to the Contractor and Owner any errors, inconsistencies and omissions discovered by the Architect in the Shop Drawings, Product Data and Samples.

§ 4.2.8 The Architect shall review, prepare and make recommendations to Owner regarding all Change Orders and Construction Change Directives for the Owner's approval and execution in accordance with the Construction Documents and the Contract Documents, accompanied by all supporting documentation. The Architect may authorize minor changes in the Work not involving an adjustment in Contract Sum or Guaranteed Maximum Price, or an extension of the Contract Time which are consistent with the intent of the Contract Documents. If necessary, the Architect shall prepare, reproduce and distribute Drawings and Specifications to describe Work to be added, deleted or modified, as provided in Section 7.4. The Architect shall accept requests by the Owner, and shall review properly prepared, timely requests by the Contractor for changes in the Work, including adjustments to the Contract Sum or Guaranteed Maximum Price, or Contract Time. A properly prepared request for a change in the Work by the Contractor shall be accompanied by sufficient supporting data and information to permit the Architect to make a reasonable determination without extensive investigation or preparation of additional drawings or specifications. If the Architect determines that requested changes in the Work are not materially different from the requirements of the Construction Documents or the Contract Documents, and do not change the Contract Sum or Guaranteed Maximum

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Price, or Contract Time, then the Architect may issue an order for a minor change in the Work with prior written notice to the Owner or recommend to the Owner that the requested change be denied. The Architect is not authorized to approve changes involving major systems such as: Heating, Ventilation and Air Conditioning ("HVAC"); roof; foundation; outward appearance; color schemes; floor plans; building materials; drainage or mechanical equipment without Owner's prior written consent.

§ 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 make recommendations 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 or recommendations 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 recommendations, the Architect will endeavor to secure faithful performance by both Owner and Contractor.

§ 4.2.13 The Owner's decisions on matters relating to aesthetic effect shall be final.

§ 4.2.14 The Architect will review and respond to requests for information about the Construction Documents and 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, at no additional cost to the Owner.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

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

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

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

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection. A notice of no reasonable objection shall in no way relieve the Contractor from full responsibility for performance and completion of the Work and its obligations under the Contract Documents. The Contractor shall be fully responsible for the performance of its Subcontractors, including those recommended or approved by the Owner.

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

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

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

§ 5.2.5 Each Contractor or Subcontractor shall be required to completely familiarize itself with the plans and specifications, to visit the Work site to completely familiarize itself with existing conditions, and to conduct any other appropriate investigations, inspections or inquiries prior to submission of a bid or proposal. No increases in Contract Sums or Guaranteed Maximum Price shall be allowed for failure to so inspect or investigate.

§ 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. The terms and conditions of the Contract Documents shall be incorporated by reference into each subcontract agreement, included as provided below. The terms and conditions of the Contract Documents shall be incorporated by reference into each subcontract agreement, included as provided below. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors. Each Subcontractor shall provide proof of insurance to Contractor consistent with the Contractor's insurance to Owner and in an amount commensurate with the Work to be performed by the Subcontractor.

§ 5.3.1 Neither the Owner nor the Architect shall be obligated to pay or to ensure the payment of any monies to Subcontractors due to any non-payment to the Contractor or non-payment of Subcontractors by the Contractor.

§ 5.3.2 The Contractor shall require any potential subcontractor to disclose to the Contractor any ownership interest or familial relationship between the Contractor, the Architect or the Owner and the potential subcontractor prior to entering into a subcontract. Contractor shall report to Owner all such disclosures and the Owner shall have the right, in its sole discretion, to reject any such affiliated subcontractor.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for any unperformed 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 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor;
- .2 assignment is subject to the prior rights and obligations of the surety, if any, obligated under bond relating to the Contract; and
- .3 the Subcontractor provides bonds as required by law or prime contractors and by Owner.

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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 Such assignment shall not constitute a waiver by Owner of its rights against Contractor, including, but not limited to, claims for defaults, delays or defects for which a Subcontractor or material vendor may also be liable.

§ 5.4.3 Such assignment shall assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. Owner shall only be responsible for compensating Subcontractors for Work performed or materials furnished from and after the date on which the Owner gives written notice of its acceptance of the subcontract agreement. Owner shall not be responsible for any Work performed or materials furnished by Subcontractors prior to the date of Owner's written notice of acceptance.

§ 5.4.4 Contractor shall promptly notify Owner and Architect of any material defaults by any Subcontractor or Sub-subcontractor. Notwithstanding any provision contained in Article 5 to the contrary, it is hereby acknowledged and agreed that Owner has in no way agreed, expressly or implicitly, nor will Owner agree, to allow any Subcontractor, Sub-subcontractor or other materialman or worker employed by Contractor the right to obtain a personal judgment or to create a mechanic's or materialman's lien against Owner for the amount due from the Owner or the Contractor.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation. The Owner reserves the right to perform other non-Project-related construction work, maintenance and repair work, and school program operations at the site and near the site during the time period of the Work.

§ 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 Contractor shall coordinate the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor to ensure that the Work remains on schedule. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement between the Owner and Contractor. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

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

§ 6.2 Contractor's Responsibility

§ 6.2.1 It shall be the responsibility of the Contractor to assist, review, and coordinate the scheduling of work performed by any of the Owner's Separate Contractors. In addition, the Contractor shall be responsible for coordinating and providing all construction administration necessary for the Work and the work of any of Owner's Separate Contractors. The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for site access and introduction and storage or staging 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. Contractor shall be responsible for coordination between Contractor's Subcontractors and Owner's Separate Contractors. Contractor shall review Owner's contract with Owner's Separate Contractors and become familiar with the requirements and scope of services contained therein.

§ 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 in writing the Architect and Owner of apparent discrepancies or defects in the construction or operations by the

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§ 7.2 Change Orders

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

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

§ 7.2.2 Contractor stipulates that acceptance of a Change order by the Contractor constitutes full accord and satisfaction for any and all Claims, whether direct or indirect, arising from the subject matter of the Change Order.

§ 7.2.3 In no event shall a single change, or the aggregate of all changes, result in the total costs, reimbursements and fees exceeding the Contract Sum or Guaranteed Maximum Price, unless agreed to in writing by Owner prior to the commencement of such modified or changed Work.

§ 7.2.4 Methods used in determining adjustments to the Contract Sum or Guaranteed Maximum Price may include those listed in Section 7.3.3.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Guaranteed Maximum Price, 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 (additional mark-ups for overhead, profit, and fees will not be allowed);
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee, subject to the limitations of subparagraph 7.1.4; or
- .4 As provided in Section 7.3.4, subject to the limitations of subparagraph 7.1.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum or Guaranteed Maximum Price, then Architect shall determine the adjustment on the basis of the amount by which the Contractor's direct costs have actually been increased over the direct cost of performing the Work without the Change in the Work. Direct costs shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

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

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

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

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost, plus the Contractor's allocated percent of profit and overhead, as confirmed by the Architect.

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

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

§ 7.4 Minor Changes in the Work With prior written notice to the Owner's representative, the Architect may order minor changes in the Work that are consistent with the Contract Documents or Construction Documents and do not involve an adjustment in the Contract Sum or Guaranteed Maximum Price, or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Guaranteed Maximum Price, or Contract Time, the Contractor waives any adjustment to the Contract Sum or Guaranteed Maximum Price, or extension of the Contract Time. The Contractor shall carry out such written orders promptly. Minor changes in the Work shall not include changes that involve the outward appearance of the structure, color schemes, floor plans, building materials, landscaping, or mechanical equipment.

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 Final Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement. The Notice to Proceed shall not be issued by Architect until the Agreement (or Amendment, if Contractor is a Construction Manager at Risk) has been signed by the Contractor, approved by Owner's Board of Education, signed by the Owner's authorized representative, and Owner and Architect have received, and approved as to form, all required payment and performance bonds and insurance, in compliance with Article 11. Issuance of the Notice to Proceed shall not relieve the Contractor of its responsibility to comply with Article 11.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8. The date of Final Completion is the date certified by the Architect in accordance with Paragraph 9.10. Unless otherwise agreed to in writing by Owner, Contractor agrees that Final Completion shall occur not more than thirty (30) days after the date of Substantial Completion.

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

§ 8.2 Progress and Completion

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

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

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

§ 8.2.4 The Contractor is subject to liquidated damages, as specified in the Agreement, if the Work is not completed by the date of Substantial Completion or the date of Final Completion.

§ 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) 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 in writing by the Owner; or (5) by other causes that the Contractor asserts, and the Architect and Owner determines, justify delay, then the Contract Time shall be extended.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15. Claims relating to time not made in accordance with Article 15 are waived.

§ 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. In the event that the Project is a Construction Management at Risk Project, the Contract Sum shall not exceed the Guaranteed Maximum Price.

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

§ 9.2 Schedule of Values

§ 9.2.1 Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum or in the case of a Guaranteed Maximum Price, within 15 days after establishing the Guaranteed Maximum Price, to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment. The schedule of values shall be prepared in such a manner that each major item of work, whether done by Contractor's own forces or subcontracted, is shown as a single line item on AIA Documents G702 and G703, Application and Certificate for Payment and Continuation Sheet. If the Contractor is a Construction Manager at Risk, then the Contractor's fee and general conditions shall be specifically shown, and AIA Documents G702CMa and G703 shall be used.

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§ 9.2.2 If the Project is a Construction Manager at Risk project, in order to facilitate the review of Applications for Payment, the Schedule of Values shall be submitted on AIA Documents G702 and G703, and shall include the following:

- .1 Contractor's cost for Contractor's fee (if applicable) bonds and insurance, mobilization, or general conditions, etc. shall be listed as individual line items.
- .2 Contractor's costs for various construction items shall be detailed. For example, concrete work shall be subdivided into footings, grade beams, floor slabs, or paving, etc.
- .3 On major subcontracts, such as mechanical, electrical and plumbing, the schedule shall indicate line items and amounts in detail (for example: underground, major equipment, fixtures, installation fixtures, or start-up, etc.).
- .4 Costs for subcontract work shall be listed without any additional mark-up of Contractor's costs for overhead, profit, or supervision.
- .5 If payment for stored materials is requested prior to installation, then material and labor shall be listed as separate line items.
- .6 Contractor shall provide a report of actual versus projected reimbursable expenses (general conditions), updated monthly.

§ 9.3 Applications for Payment

§ 9.3.1 At least five days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage.

§ 9.3.1.1 Contractor agrees that receipt of the Application for Payment by the Architect shall not be construed as receipt of an invoice by the Owner. Contractor further agrees that Owner's receipt of the Certificate for Payment shall be construed as receipt of an invoice by the Owner.

§ 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 Contractor has self-performed the Work.

§ 9.3.1.3 Until Substantial Completion of the Work, the Owner shall withhold retainage as provided in the Contract Documents, except that Owner shall not pay amounts for which the Architect refuses to certify payment, or the Owner refuses to pay, as provided herein in Section 9.4.3 or 9.5, as amended.

§ 9.3.2

Payments will be made on the basis of invoices for specific materials or equipment incorporated in the Work and specific materials or equipment (1) suitably stored at the site or (2) suitably stored at some off-site location, provided the following conditions are met for off-site storage:

- .1 The location must be agreed to, in writing, by the Owner.
- .2 The location must be a bonded warehouse.
- .3 Payments for materials or equipment stored on or off the site shall be conditioned upon submission by the Contractor of bills of sale or such other documentation satisfactory to the Owner to establish the Owner's title to such materials or equipment or otherwise protect the Owner's interest, including applicable insurance (naming the Owner as insured and naming the specific materials or equipment stored and their location) and proof of delivery to the site for those materials and equipment stored off the site. Under no circumstances will the Owner reimburse the Contractor for down payments, deposits, or other advance payments for materials or equipment until the materials or equipment are delivered to Owner's site or the agreed-upon off-site storage. Failure to follow these procedures shall result in nonpayment for storage of or insurance on stored materials and equipment. Failure to follow these procedures shall also result in nonpayment of materials and equipment until said materials and equipment are incorporated into the Work.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work. Neither Contractor nor any of its materialmen, laborers, or Subcontractors shall have any lien rights against the Owner's lands, building funds, materials or other property. No materialmen, laborers or Subcontractors of the Contractor shall have any enforceable rights against the Owner on this Contract. Materialmen, laborers and Subcontractors of the Contractor may have rights under any Payment Bond provided by the Contractor, but cannot look to the Owner for any help in enforcement of those rights. CONTRACTOR SHALL WAIVE, RELEASE, INDEMNIFY, AND HOLD OWNER HARMLESS FROM ANY LIENS, CLAIMS, SECURITY INTERESTS OR ENCUMBRANCES FILED BY THE CONTRACTOR, SUBCONTRACTORS, OR ANYONE CLAIMING BY, THROUGH, OR UNDER THE CONTRACTOR OR SUBCONTRACTOR FOR ITEMS COVERED BY PAYMENTS MADE BY THE OWNER TO THE CONTRACTOR.

§ 9.3.4 Contractor shall submit Applications for Payment in quadruplicate using AIA Documents G702 and G703 Application and Certificate of Payment (or G702CMA, if applicable) and Continuation Sheet. All blanks in the form must be completed and signatures of Contractor and Notary Public must be original on each form. Incomplete or inaccurate Applications for Payment shall be returned to the Contractor by the Architect for completion and/or correction. Owner shall have no responsibility for payment of same if the Application for Payment is incomplete or inaccurate.

§ 9.3.5 By signing each Application for Payment, the Contractor stipulates and certifies to the following: that the information presented is true, correct, accurate and complete; that the Contractor has made the necessary detailed examinations, audits, and arithmetic verifications; that the submitted Work has been completed to the extent represented in the Applications for Payment; that the materials and supplies identified in the Applications for Payment have been purchased, paid for, and received; that the Subcontractors have been paid as identified in the Applications for Payment or that Contractor has been invoiced for same; that Contractor has made the necessary on-site inspections to confirm the accuracy of the Applications for Payment; that there are no known mechanics' or materialmen's liens outstanding at the date of the Application for Payment; that all due and payable bills with respect to the Work have been paid to date or are included in the amount requested in the current Payment Application; that, except for such bills not paid but so included, there is no known basis for the filing of any mechanics' or materialmen's liens on the Work; that the Payment Application includes only Work self-performed by Contractor or for which Contractor has been invoiced; and that releases from all Subcontractors and materialmen have been obtained in such form as to constitute an effective release of lien under the laws of the State of Missouri covering all Work performed and for which payment has been made by the Owner to the Contractor. Contractor understands that documents submitted to Owner become government documents under the laws of the State of Missouri. Contractor further understands that falsification of Contractor's Application for Payment may constitute a violation of the penal laws of the State of Missouri and may justify termination of Contractor's Contract with Owner. Contractor further understands and agrees that falsification of documents may entitle Owner to restitution as permitted by Missouri law and these Contract Documents.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment carefully evaluate and review the Application for Payment and, when appropriate, return the Application for Payment to the Contractor as provided in Section 9.3.4. If the Application for Payment is complete, then the Architect shall sign and, either (1) certify and issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) certify and issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner in writing of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner the Architect has observed the progress of the Work and determined that, in the Architect's professional opinion, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents.

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Further, the issuance of the Certificate for Payment will constitute a representation by the Architect to the Owner that the Architect has, carefully evaluated and certified that the amounts requested in the Application for Payment are valid and correct. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect in writing to the Owner. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data unless requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum. Examinations, audits, and verifications, if required by the Owner, will be performed by the Owner's accountants or other representatives of the Owner acting in the sole interest of the Owner.

§ 9.4.3 The issuance of a Certificate for Payment shall constitute a recommendation to the Owner regarding the amount to be paid. This recommendation is not binding on the Owner if Owner knows of other reasons under the Contract Documents why payment should be withheld.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;
- .7 repeated failure to carry out the Work in accordance with the Contract Documents; or
- .8 failure to submit a written plan indicating action by the Contractor to regain the time schedule for completion of Work within the Contract time

§ 9.5.2 When the Contractor disputes the Architect's decision regarding a Certificate 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 certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 Notwithstanding any provision contained within this Article, if the Work has not attained Substantial Completion or Final Completion by the required dates, subject to extensions of time allowed under the Contract Documents, then Architect may withhold any further Certificate for Payment from Contractor to the extent necessary to preserve sufficient funds to cover liquidated damages. The Owner shall not be deemed in default by reason of withholding payment as provided for in Sections 9.3.4, 9.4.3, 9.5.1, or this Section.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment for undisputed amounts in the manner and within the time provided in the Contract Documents, and shall so notify the Architect. Owner shall notify Contractor within twenty-one (21) days if Owner disputes the Architect's Certificate for Payment,

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listing the specific reasons for nonpayment. Payments to the Contractor shall not be construed as releasing the Contractor or his Surety from any obligations under 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 Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier. Any action taken by the Owner to require the Contractor to pay a Subcontractor shall not impose any liability on Owner to the Subcontractor or supplier.

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

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

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

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.6.9 Contractor shall not withhold as a retainage a greater percentage from Subcontractors or materialmen than the percentage that Owner withheld as retainage from payments to Contractor.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within ten (10) days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor any payment certified by the Architect, which is undisputed, due, and owing by the date the payment is due under the Contract Documents, then the Contractor may, upon ten (10) additional days' written notice to the Owner and Architect, that payment has not been made and the Contractor intends to suspend performance for nonpayment, may stop the Work until payment of the amount owing has been received or until termination of the Agreement under Section 14.1. Contractor shall not utilize this section if it only disputes the amount certified for payment. If the Owner provides written notice to the Contractor that: (1) payment has been made; or (2) a bona fide dispute for payment exists, listing the specific reasons for nonpayment, then Contractor shall be liable for damages resulting from suspension of the Work. If a reason specified is that labor, services, or materials provided by the Contractor are not provided in compliance with the

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Contract Documents, then the Contractor shall be provided a reasonable opportunity to cure the noncompliance or to compensate Owner for any failure to cure the noncompliance. No amount shall be added to the Contract Sum as a result of a dispute between Owner and Contractor unless and until such dispute is resolved in Contractor's favor.

§ 9.7.2 If the Architect does not issue a Certificate for Payment within seven days after receipt of the Contractor's Application for Payment, through no fault of the Contractor, then the Contractor shall provide written notice to the Owner, and the Owner shall have fourteen (14) business days after receipt of such notice to provide or obtain a Certificate for Payment. If Owner fails to provide or obtain the Certificate for Payment, then the Contractor may, upon fourteen (14) additional business days' written notice to the Owner and Architect, stop the Work until payment of the undisputed amount owing has been received.

§ 9.7.3 If the Owner is entitled to reimbursement or payment from the Contractor under or pursuant to the Contract Documents, then such payment shall be made promptly upon demand by the Owner. Notwithstanding anything contained in the Contract Documents to the contrary, if the Contractor fails to promptly make any payment due to Owner, pursuant to the Contract, or if the Owner incurs any costs and expenses to cure any default of the Contractor or to correct defective Work, then the Owner shall have an absolute right to offset such amount against the Contract Sum and, in the Owner's sole discretion and without waiving any other remedies, may elect either to:

- .1 deduct an amount equal to that which the Owner is entitled from any payment then or thereafter due to Contractor from the Owner, or
- .2 issue a written notice to the Contractor reducing the Contract Sum by an amount equal to that which the Owner is entitled.

§ 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; all Project systems included in the Work or designated portion thereof have been successfully tested and are fully operational; all required governmental inspections and certifications required of the Work have been made, approved and posted; designated initial instruction of Owner's personnel in the operation of Project systems has been completed; and all the required finishes set out in the Construction Documents are in place. The only remaining Work shall be minor in nature so that the Owner can occupy the Work or the applicable portion of the Work for all of its intended purposes on that date; and the completion of the Work by the Contractor will not materially interfere with or hamper Owner's normal school operations or other intended use. As a further condition of a determination of Substantial Completion, the Contractor shall certify that all remaining Work shall be completed within thirty (30) days. Contractor shall complete Owner's Substantial Completion Certificate.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

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

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare, sign and issue Owner's Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the Final Completion of the Work or designated portion.

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§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate.

§ 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 agreed to by the Owner and the Contractor in writing, 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 that 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 resulting from such occupancy, use or installation and property and liability insurance. 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. 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. Contractor agrees that the Owner may, upon coordination with the Contractor, place and install as much equipment and furnishings as is possible before completion or partial completion of portions of the Work provided, however, such installation of equipment and furnishings does not delay the progress of the Work.

§ 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 in writing, 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.

§ 9.9.4 In the event that Owner takes partial occupancy or installs furnishings and equipment prior to Substantial Completion of the Project, Contractor shall obtain an endorsement to Contractor's Builder's Risk Policy to provide extended coverage for partial occupancy if Contractor's Builder's Risk Coverage required by Article 11 would not otherwise provide such coverage.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly prepare, sign, and make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue Owner's Certificate of Final Completion and a final Certificate for Payment certifying to the Owner that on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance, including all retainages found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled. Final payments shall be made by the Owner in accordance with Owner's regular schedule for payments.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) using AIA Document G706 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) evidence satisfactory to Owner 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) using AIA Document G707, consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) except for amounts previously withheld by the Owner, other data establishing payment or satisfaction of obligations, such as AIA Document G706A, notarized subcontractor's lien releases, receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees. In addition, the following items must be completed and received by the Owner before Final Payment will be due:

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- .1 Written certifications required by Sections 10.5, 10.6, and 10.7;
- .2 Final list of subcontractors (AIA Document G705);
- .3 Contractor's warranties, organized as required elsewhere in the Contract Documents;
- .4 Maintenance and Instruction Manuals;
- .5 Owner's Final Completion Certificate; and
- .6 "As-constructed record drawings". At the completion of the Project, the Contractor shall submit one complete set of "as-constructed" record drawings, with all changes made during construction, including concealed mechanical, electrical, and plumbing items. The Contractor shall submit these as electronic, sepia, or other acceptable medium, in the discretion of the Owner. The "as-constructed" record drawings shall delete the seal of the Architect and/or the Engineer and any reference to those firms providing professional services to the Owner, except for historical or reference purposes.

Documents identified as affidavits must be notarized. All manuals will contain an index listing the information submitted. The index section will be divided and identified by tabbing each section as listed in the index. Upon request, the Architect will furnish the Contractor with blank copies of the forms listed above. Final payment shall be paid by the Owner to the Contractor within thirty (30) days after Owner's Board of Education has voted to accept the Work and approve Final Payment.

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

§ 9.10.4

(Paragraphs deleted)

Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall not constitute a waiver of any 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.

§ 9.10.5 Intentionally Deleted.

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 and shall conform to all provisions of the "Manual of Accident Prevention in Construction", published by the Associated General Contractors of America, Inc., latest edition, and the Contractor further agrees to fully comply with all safety standards required by the Occupational Safety and Health Administration ("OSHA") 29 USC Section 651 et seq., and all amendments thereto. However, the Contractor's duties herein shall not relieve any Subcontractor or any other person or entity, including any person or entity required to comply with all applicable federal, state and local laws, rules, regulations, and ordinances, from the obligation to provide for the safety of their employees, persons, and property and their requirements to maintain a work environment free of recognized hazards. Contractor shall provide reasonable fall protection safeguards and provide approved fall protection safety equipment for use by all exposed Contractor employees.

§ 10.1.2 Contractor's employees, agents, Subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, shall not perform any service for Owner while under the influence of any amount of alcohol or any illegal controlled substance; or use, possess, distribute, or sell alcoholic beverages while on Owner's premises. No person shall: use, possess, distribute, or sell illegal or nonprescribed controlled drugs or drug paraphernalia; misuse legitimate prescription or over-the-counter drugs; or act in contravention of warnings on medications while performing the Work or while on Owner's premises. Contractor's employees, agents,

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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 load or 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 written notice shall provide sufficient detail to enable the other party to investigate the matter. The Contractor understands and acknowledges that, under Missouri law, Owner has sovereign and/or governmental immunity as to all torts subject to any defenses under law.

§ 10.2.9 The Contractor shall promptly report in writing to the Owner and Architect all accidents arising out of or in connection with the Work which cause death, bodily injury, or property damage, giving full details and statements of any witnesses. In addition, if death, serious bodily injuries, or serious property damages are caused, then the accident shall be reported immediately by any means necessary to give actual notice to the Owner's representative and the Architect.

§ 10.2.10 The Contractor shall do all things reasonably necessary to protect the Owner's premises and all persons from damage and injury when all or a portion of the Work is suspended for any reason.

§ 10.2.11 Contractor's obligations under Section 10.2 as to each portion of the Project shall continue until Owner takes possession of and occupies that portion of the Project.

§ 10.3 Hazardous Materials and Substances

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

§ 10.3.2 Upon receipt of the Contractor's written 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

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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. IF CONTRACTOR IMPORTS HAZARDOUS MATERIALS ONTO THE PROJECT SITE, THEN CONTRACTOR HEREBY INDEMNIFIES AND HOLDS HARMLESS THE OWNER, ITS CONSULTANTS, TRUSTEES, OFFICERS, AGENTS AND EMPLOYEES, AGAINST ANY CLAIMS ARISING OUT OF OR RELATED TO SUCH IMPORTATION, INCLUDING BUT NOT LIMITED TO COSTS AND EXPENSES THE OWNER INCURS FOR REMEDIATION OF A MATERIAL OR SUBSTANCE THE CONTRACTOR BRINGS TO THE SITE, AS PROVIDED FOR IN SUBPARAGRAPH 3.18.

§ 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 Intentionally Deleted.

§ 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, to the extent allowed by law, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

§ 10.4.1 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.

§ 10.4.2 The performance of the foregoing services by the Contractor shall not relieve the Subcontractors of their responsibility for the safety of persons and property and for compliance with all federal, state and local statutes, Owner's Board of Education policies, rules, regulations, and orders of any governmental authority applicable to the conduct of the Work.

ARTICLE 11 INSURANCE AND BONDS

§ 11.0.1 No Work will be commenced, and no equipment or materials can be shipped, until all requirements of this Article have been satisfied, satisfactory evidence of insurance has been provided, and all insurance is in full force and effect. Contractor shall notify Owner and Architect in writing of any proposed nonconformity with these requirements and shall notify Owner and Architect in writing of any insurance changes which occur during the terms required under the Contract Documents. Any deviation from these requirements can only be approved by Owner's Board of Education. Any nonconformity may be grounds for termination or modification of the Contract. To the extent that Contractor is unable to procure the insurance designated herein because the insurance is not reasonably available or is cost-prohibitive, then Contractor shall provide written notice to Owner's Board of Education. Said lack of insurance may then be grounds for termination or modification of this Agreement. The purchase of insurance by any party shall in no way waive or terminate the statutory or common law immunities enjoyed by Owner. Owner shall retain all immunities, including those immunities contained within Missouri Revised Statute § 537.600 et.seq.

§ 11.0.2 Satisfactory evidence of insurance required by this Article shall be provided to Owner and Architect prior to commencement of the Work. Satisfactory evidence shall include copies of all required insurance policies, declarations, and endorsements themselves. In addition, Contractor shall also provide a duly-executed ACORD Form 25 Certificate of Liability Insurance naming Owner as a certificate holder and additional insured (except as noted in Section 11.0.4) and attaching all endorsements required herein. The Contractor shall furnish Owner all insurance amendments, renewals, notices, cancellations, and additional endorsements, as they are provided to Contractor.

§ 11.0.3 All insurance required herein shall be obtained from a company licensed to do business in the State of Missouri by the Missouri Department of Insurance, and shall be underwritten by a company rated not less than "A-" X in A.M. Best's Key Rating Guide, Property-Casualty, according to the latest posted ratings available on A.M. Best's website, www.ambest.com, and that permits waivers of subrogation.

§ 11.0.4 All insurance required herein shall name the Owner, its officers, employees, representatives, or agents, as an additional insured, except Contractor's Worker's Compensation insurance.

§ 11.0.5 All insurance required herein shall, by endorsement, be primary and noncontributory insurance with respect to the Owner, its officers, employees, representatives, or agents. All insurance shall be written on an occurrence basis, if available, and shall contain a waiver of subrogation in favor of Owner as provided for in Section 11.3.

§ 11.0.6 Any failure of Contractor to comply with the reporting provisions of the policies shall not affect the coverage provided to the Owner, its officers, employees, representatives, or agents.

§ 11.0.7 All workers on the Project must be covered by the required insurance policies of the Contractor or a Subcontractor.

§ 11.0.8 Nothing contained in this Article shall limit or waive Contractor's legal or contractual responsibilities to Owner or others.

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor and the Contractor's Subcontractors shall purchase and maintain such insurance as will protect them and the Owner from claims that may arise out of, or result from, the Contractor's operations under the Contract, whether such operations be by Contractor or by any Subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, at a minimum, of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in this Section 11.1 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.

.1 Claims under workers' compensation, disability benefit, and other similar employee benefit acts that are applicable to the Work to be performed, including private entities performing work at the site, and exempt from the coverage on account of number of employees or occupation, which entities shall maintain voluntary compensation coverage at the same limits specified for mandatory coverage for the duration of the Project (see Exhibit A);

.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;

.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;

.4 Claims for damages insured by usual personal injury liability coverage;

.5 Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

.6 Claims for damages because of bodily injury, death of a person, or property damage arising out of ownership, maintenance, or use of a motor vehicle;

.7 Claims for bodily injury or property damage arising out of completed operations;

.8 Claims involving contractual liability insurance applicable to the Contractor's obligations under the Contract Documents, including under Section 3.18; and

.9 Claims for damages to the Work itself, through builder's risk insurance, pursuant to AIA 101-2017, Exhibit A.

§ 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.

§ 11.1.2.1 The Contractor shall furnish separate payment and performance bonds covering faithful performance of the Contract and payment of obligations arising thereunder, each bond to be in a total amount equal to 100% of the

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

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

(Paragraphs deleted)

§ 11.3.3 The Owner, as fiduciary, shall have power to adjust and settle any loss arising out of the Work with insurers, regardless of the purchaser of the insurance policy. The Contractor upon receipt of proceeds shall, as a fiduciary, pay all subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements shall require subcontractors to make payment to their sub-subcontractors in similar manner. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor with the insurance proceeds upon issuance of a Notice to Proceed from the Owner.

§ 11.3.4 Partial occupancy or use shall not commence until the insurance company providing this insurance has consented in writing, by endorsement or otherwise. Owner and Contractor shall take reasonable steps to obtain such consent and shall take no action without written mutual consent that would cause cancellation, lapse, or reduction of this insurance.

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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 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 and Architect of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor and the Architect shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor and/or Architect does not object, the Owner shall settle the loss and the Contractor and Architect 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 or Architect 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 or Owner, 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 or Owner may request to see such Work and it may 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.

§ 12.2.1.1 The Owner may make emergency repairs to the Work or take such other measures necessary under the circumstances, if the Contractor does not promptly respond to a notice of defect or nonconforming Work. Contractor shall be responsible to Owner for this cost if the reason for the repairs is attributable to the Contractor. If payments then or thereafter due to the Contractor are not sufficient to cover such costs, then the Contractor shall pay the difference to the Owner on demand.

§ 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 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 written 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 written notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of written notice from the Owner or Architect, the Owner may correct the Work as provided in 12.2.2.1.1. Nothing contained in this Section 12.2 is

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intended to limit or modify any obligations under the law or under the Contract Documents, including any warranty obligations, expressed or implied.

§ 12.2.2.1.1 If the Contractor fails to perform the corrective Work, then Owner may perform corrective Work, at Contractor's cost. If Owner performs corrective Work, then Owner may also remove nonconforming Work and store the salvageable materials or equipment at Contractor's expense. If the Contractor does not pay all costs incurred by Owner within ten (10) days after written notice, then Owner may, upon ten (10) additional days' written notice, sell the removed materials and equipment in accordance with Owner's policies, and shall account for the proceeds thereof, after deducting costs and damages that should have been borne by the Contractor, including compensation for the Architect's services and expenses made necessary thereby. If such proceeds of sale do not cover costs which the Contractor should have borne, then the Contractor shall pay the difference to the Owner.

§ 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 by a period of one (1) year from the actual completion of that portion of the Work.

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

§ 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.

§ 12.2.6 Contractor shall replace, repair, or restore any parts of the Project or furniture, fixtures, equipment, or other items placed therein (whether by Owner or any other party) that are destroyed or damaged by any such parts of the Work that do not conform to the requirements of the Contract Documents or by defects in the Work.

§ 12.2.7 The provisions of this Section 12.2 apply to Work done by Subcontractors of the Contractor as well as Work done directly by employees of the Contractor. The provision for this Section 12.2.7 shall not apply to corrective work attributable solely to the acts or omissions of any separate contractor of Owner (unless Contractor is acting in such capacities). The cost to Contractor of performing any of its obligations under this Section 12.2.7 to the extent not covered by insurance shall be borne by Contractor.

§ 12.2.8 If, however, Owner and Contractor deem it inexpedient to require the correction of Work damaged or not done in accordance with the Contract Documents, then an equitable deduction from the Contract Sum shall be made by written agreement between Contractor and Owner. Until such settlement, Owner may withhold such sums as Owner deems just and reasonable from moneys, if any, due Contractor. The settlement shall not be unreasonably delayed by the Owner and the amount of money withheld shall be based on estimated actual cost of the correction to Owner.

§ 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 the other party hereto and to partners, successors, assigns and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. 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 invalidity of any part or provision of the Contract Documents shall not impair or affect in any manner whatsoever the validity, enforceability, or effect of the remainder of the Contract Documents

§ 13.3 Rights and Remedies

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

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

§ 13.4 Tests and Inspections

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

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

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

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect, with a copy to the Owner.

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

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

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§ 13.5 Interest

Undisputed payments overdue and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located. Any such payment shall be deemed overdue on the thirty-first day after Owner received Architect's invoice or Contractor's completed Application for Payment for the Architect, whichever is later, if Owner's Board of Education meets more than once per month. Any such payment shall be deemed overdue on the forty-sixth day after Owner receives Architect's invoice or Contractor's Certificate for Payment from the Architect, if Owner's Board of Education meets once a month or less frequently. No interest shall be due on sums properly retained by Owner, except as provided by law, or on disputed sums unpaid by Owner.

§ 13.6 The relationship of the Owner and the Contractor is one of District and independent contractor and not master and servant or joint venturers. Except as specifically provided herein, the Contractor does not have the authority to act for or on behalf of the Owner.

§ 13.7 As a condition of this Agreement, Contractor must provide a 10-hour Occupational Safety and Health Administration (OSHA) Construction Safety Program ("Program") for Contractor's on-site employees as mandated by RSMO § 292.675. Said Program must include a course in construction safety and health approved by OSHA or a similar program approved by the Missouri Department of Labor and Industrial Relations. This requirement includes the following:

- .1 All of Contractor's on-site employees must complete the Program within 60 days of beginning work on the Project.
- .2 Any employee found on the work site subject to this requirement without documentation of the successful completion of the Program will be given 20 days to produce such documentation before being subject to removal from the Project.
- .3 Contractor's failure to comply with these requirements will subject it to penalties. Contractor shall forfeit as a penalty to the Owner \$2,500.00 plus \$100.00 for each employee employed by Contractor or Subcontractors, for each calendar day, or portion thereof, such employee is employed to do work pursuant to this Contract without the required training. Said penalty shall not begin to accrue until the time period in subsections 1 and 2 have elapsed. Contractor will be subject to said penalties notwithstanding any other provision to the contrary in this Agreement.
- .4 Contractor shall require its contracts with all Subcontractors to contain these provisions. Contractor shall be responsible for penalties to Owner due to any Subcontractor's employees' failure to be able to produce documentary evidence of training in the required Program. Contractor may withhold all sums necessary to cover any penalty Owner has withheld or been paid. Contractor may recover any penalties from Subcontractors by filing a lawsuit in the circuit court of the county in which the project is located. Contractor shall have no right of recover against Owner.

§ 13.8 EQUAL OPPORTUNITY IN EMPLOYMENT

§ 13.8.1 The Contractor and the Contractor's Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, age, disability, sex, or national origin, or any class otherwise protected by District policy or law. The Contractor agrees to post in conspicuous places, available to employees and applicants, notices setting forth the Contractor's nondiscrimination policies.

§ 13.9 RECORDS

§ 13.9.1 Contractor shall at all times through the date of Final Completion, maintain Job Records, including, but not limited to, invoices, Construction Documents, payment records, payroll records, daily reports, diaries, logs, instructions, drawings, receipts, subcontracts, purchase orders, vouchers, memoranda, other financial data and job meeting minutes applicable to the Project, in a manner which maintains the integrity of the documents. Job Records must be retained by Contractor for at least twelve (12) years after the date of Final Completion of the Project. Within ten (10) days of Owner's request, Contractor shall make such Job Records available for inspection, copying and auditing by the Owner, Architect or their respective representatives, at Owner's central office.

§ 13.9.2 If Contractor is a Construction Manager at Risk, then Contractor shall also maintain, in accordance with the provisions of this Agreement, the following: subcontract files, including proposals of successful and unsuccessful bidders, bid recaps and subcontractor payments; original estimates; estimating work sheets; general ledger entries detailing cash and trade discounts received; insurance rebates and dividends; and any other supporting evidence deemed necessary by the Owner to substantiate charges related to the Contract.

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§ 13.9.3 Contractor shall keep a full and detailed financial accounting system and shall exercise such controls as may be necessary for proper financial management under this Contract; the accounting and control systems shall be satisfactory to the Owner and shall be subject to the provisions of this Agreement.

§ 13.9.4 Contractor shall keep all Contract Documents related to the Project, subject to the provisions of this Agreement, provided, however, Contractor shall not destroy said documents until Contractor has confirmed with Owner in writing that Owner has obtained a copy of all as-built drawings.

§ 13.9.5 In the event that an audit by the Owner reveals any errors/overpayments by the Owner, then the Contractor shall refund to the Owner the full amount of such overpayments within thirty (30) days of such audit findings, or the Owner, at its option, reserves the right to deduct such amounts owed to the Owner from any payments due to the Contractor.

§ 13.10 PROPRIETARY INTERESTS AND CONFIDENTIAL INFORMATION

§ 13.10.1 Neither Architect nor Contractor shall use the image or likeness of Owner's Project or Owner's official logo or emblem and any other trademark, service mark, or copyrighted or otherwise protected information of Owner, without Owner's prior written consent. Contractor and Architect shall not have any authority to advertise or claim that Owner endorses Architect or Contractor's services, without Owner's prior written consent.

§ 13.10.2 Neither Architect nor Contractor shall disclose any confidential information of Owner which comes into the possession of Architect or Contractor at any time during the Project, including but not limited to: pending real estate purchases, exchange, lease, or value; information related to litigation; the location and deployment of security devices; security access codes; student likenesses; student record information; employee information; or any other information deemed confidential by law.

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 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

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

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed.

§ 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

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User Notes:

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- 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;
- 5 fails to furnish the Owner, upon written request, with assurances satisfactory to the Owner, evidencing the Contractor's ability to complete the Work in compliance with all the requirements of the Contract Documents;
- 6 engages in serious or repeated worker misconduct in violation of Article 3.3.2; and
- 7 engages in conduct that would constitute a violation of state or federal criminal law, including but not limited to, laws prohibiting certain gifts to public servants, or engages in conduct that would constitute a violation of the Owner's ethics or conflict of interest policies or Owner's Board of Education's policies; or
- 8 fails to proceed continuously and diligently with the construction and completion of the Work, except as permitted under the Contract Documents.
- 9 because of any act of government, such as a declaration of national emergency that requires Work to be stopped.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, subject to any prior rights of the surety, 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 (7) days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

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

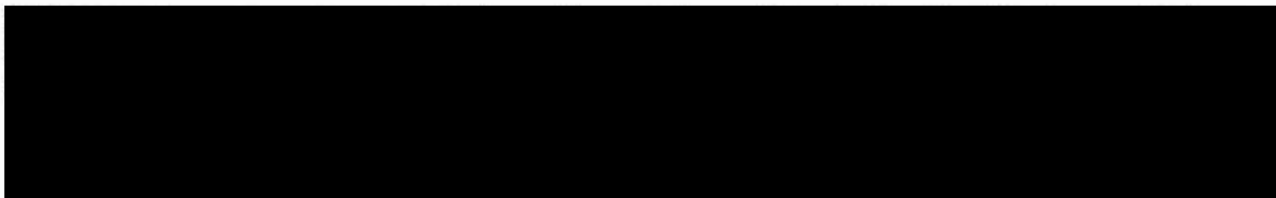
§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished. Any further payment shall be limited to amounts earned to the date of termination.

§ 14.2.4 If the costs of finishing the Work, including compensation for the Architects' services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, exceed the unpaid balance of the Contract Sum or Guaranteed Maximum Price, (if the Project is a Construction Manager at Risk project), then the Contractor and/or its Surety shall pay the difference to the Owner. The amount to be paid to the Owner shall be certified by Architect upon application. The obligation for payment shall survive termination of the Contract.

§ 14.2.5 The parties hereby agree that: (1) if an order for relief is entered on behalf of the Contractor, pursuant to Chapter 11 of the U.S. Bankruptcy Code; (2) if any other similar order is entered under any debtor relief laws; (3) if Contractor makes an assignment for the benefit of one or more of its creditors; (4) if a receiver is appointed for the benefit of its creditors; or (5) if a receiver is appointed on account of its insolvency, any such event could impair or frustrate Contractor's performance of the Contract Documents. Accordingly, it is agreed that upon occurrence of any such event, Owner shall be entitled to request of Contractor or its successor in interest adequate assurance of future performance in accordance with the terms and conditions of the Contract Documents. Failure to comply with such request within ten (10) days of delivery of the request shall entitle Owner to terminate the Contract and to the accompanying rights set forth in Subparagraphs 14.2.1 through 14.2.6. In all events, pending receipt of adequate assurance of performance and actual performance in accordance with the Contract Documents, Owner shall be entitled to proceed with the Work with Owner's own forces or with other Contractors on a time and material or other appropriate basis, the cost of which will be charged against the Contract Sum.

§ 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.



§ 14.4 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. Furthermore, if this Contract is a multi-year contract funded through Owner's current general funds that are not bond funds, then the Owner's Board of Education has the right to not appropriate adequate monies for the next fiscal year and to terminate this Contract at the end of each fiscal year during the term of the Contract, without the Owner incurring any further liability to Contractor as a result of such termination.

§ 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 and for proven unrecoverable loss with respect to materials, equipment, tools, and construction equipment and machinery incurred to the date of termination. Such payment shall not cause the Contract Sum, or Guaranteed Maximum Price, if the Project is a Construction Manager at Risk Project, to be exceeded. Such payment shall not include overhead and profit for Work not executed.

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.

(Paragraphs deleted)

§ 15.1.2 Intentionally Deleted

§ 15.1.3 Notice of Claims

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

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party.

§ 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 as amended and Article 14 as amended, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to undisputed payments for Work performed in accordance with the Contract Documents. .

§ 15.1.4.2 Intentionally Deleted.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for additional cost or an increase in the Contract Sum or Guaranteed Maximum Price, written notice as provided in Section 15.1.3 shall be given to Owner and Architect. Contractor waives Claims for an increase in the Contract Sum if it does not provide said written notice before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4. The Architect will promptly investigate such Claim and report findings and a recommended resolution in writing to the Owner and Contractor. If the Claim is approved by Owner's Board of Education, or Owner's representative if provided for herein, then Contractor shall proceed with the execution of the Work that is the subject matter of the Claim. If the Claim is rejected by the Owner, then Contractor may pursue alternative dispute resolution as provided for in the Contract Documents.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

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

§ 15.1.6.4 No extension of time shall be made to the Contractor because of hindrances or delays from any cause which is the fault of Contractor or Contractor's Subcontractors or under Contractor's control.

§ 15.1.6.5 Requests for time extension shall be submitted on a monthly basis and shall specify the time delay, the cause of the delay, and the responsible party for the delay, whether Contractor, Owner, rain day, or other. Any claim not submitted under the terms of this Section shall be waived.

§ 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes:

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

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

§ 15.2 Resolution of Claims and Disputes

§ 15.2.1 Claims by the Contractor against the Owner, including those alleging an error or omission by the Architect, shall be referred initially to the Architect for written recommendation. An initial recommendation by the Architect shall be required as a condition precedent to mediation or litigation of all Claims by the Contractor arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the Architect with no recommendation having been rendered by the Architect.

§ 15.2.2 The Architect shall review Claims and within ten days of the receipt of the Claim take one of the following actions: (1) request additional supporting data from the Contractor, or (2) make a written recommendation to the Owner, with a copy to the Contractor.

§ 15.2.3 Intentionally Deleted

§ 15.2.4 Intentionally Deleted

§ 15.2.5 Following receipt of the Architect's written recommendation regarding a Claim, the Owner and Contractor shall attempt to reach agreement as to any adjustment to the Contract Sum or Guaranteed Maximum Price and/or Contract Time. If no agreement can be reached, then either party may request mediation of the dispute pursuant to Section 15.3.

§ 15.2.6 Upon receipt of a Claim against the Contractor or at any time thereafter, the Architect or 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 Architect or the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

(Paragraph deleted)

§ 15.2.7 Intentionally Deleted

§ 15.2.8 Intentionally Deleted

§ 15.3 Alternative Dispute Resolution

§ 15.3.1 Any Claim arising out of or related to the Contract, except Claims relating to aesthetic effect and except those waived under the terms of the Contract Documents, shall, after written recommendation by the Architect or thirty (30) days after submission of the Claim to the Architect, be subject to mediation at the request of either party. Owner and Contractor expressly agree that mediation shall be a condition precedent to the initiation of any litigation arising out of such Claims. Claims for injunctive relief shall not be subject to this Section.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation. Requests for mediation shall be filed in writing with the other party to the Contract. Mediation shall be conducted by a mutually-agreed-upon mediator. In the event that the parties are unable to agree on a mediator, then the parties shall jointly request the appointment of a neutral mediator by a District Judge in the county in which the Project is located.

§ 15.3.3 The parties shall share the mediator's fee equally and, if any filing fee is required, shall share said fee equally. Mediation shall be held within the county where the Owner's main administrative office is located, unless another location is mutually agreed upon by the parties. Agreements reached in mediation shall be reduced to writing, considered for approval by the Owner's Board of Education, signed by the parties if approved by the Board of Education, and, if signed, shall thereafter be enforceable as provided by the laws of the State of Missouri.

§ 15.3.4 Any claim not resolved in mediation shall be subject to litigation pursuant to Section 13.1.

§ 15.4 No Arbitration

§ 15.4. In the event that any party to this Agreement shall be compelled to enforce the terms of this Agreement through litigation or retention of legal counsel, the prevailing party in any such enforcement action shall be entitled to the payment of its attorneys' fees by the breaching party.

§ 15.4.1 Intentionally Deleted

(Paragraph deleted)

§ 15.4.2 Notwithstanding anything to the contrary in the Contract Documents or in any document forming a part hereof, there shall be no mandatory arbitration for any dispute arising hereunder.

§ 15.4.3 Intentionally Deleted

(Paragraph deleted)

§ 15.4.4.1 Intentionally Deleted

(Paragraph deleted)

§ 15.4.2 Intentionally Deleted

§ 15.4.3 Intentionally Deleted

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§ 15.5 Contractor stipulates that Owner is a political subdivision of the State of Missouri, and, as such, enjoys immunities from suit and liability provided by the Constitution and laws of the State of Missouri. By entering into this Agreement, Owner does not waive any of its immunities from suit and/or liability, except as otherwise specifically provided herein and as specifically authorized by law.

OWNER: [Signature]
Title: President, Board of Education

DocuSigned by:
CONTRACTOR: [Signature] 8/21/2020 | 9:15 AM CD
AS150FC129AM1
(Printed Name) Chris Vaeth
Title: Chris Vaeth, Vice President
By: _____

ATTEST:
By: [Signature] Title: Secretary, Board of Education
By: VICHI L. DYGGIS

^{DS} [Signature] ^{DS} [Signature]

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Subcontractor is expected to fulfill all the obligations contained in the Master Subcontract Agreement (“MSA”), and, in addition, the following requirements. In the event of any inconsistency between the MSA and the contents of this Scope of Work, Subcontractor shall comply with the more stringent requirement. Sample MSA is attached, reference section 005200 – Agreement Form.

Subcontractor is responsible for all items outlined and included in this section. For scope-specific clarifications, please see corresponding bid package scopes of work.

00 21 01 – Special Working Conditions

1.1 N/A

00 21 02 – Safety | Housekeeping

1.2 General Safety

1.2.1 The subcontractor agrees to furnish to the contractors, the name and emergency contact information that will be answered 24/7 in the event of any incidents or injuries. The event of a change in supervisory personnel, the subcontractor shall immediately notify the contractor and provide current information of the new supervisor.

1.2.1.1 Every Subcontractor will identify, by name, at the time of contract award, the most senior onsite manager with accountability for injury free construction. A full time, onsite, qualified, safety professional is required at the specific request of McCownGordon Construction. Additional safety professionals may be required with project manpower increases at the discretion of McCownGordon Construction. McCownGordon Construction reserves the right of determination of qualifications of the assigned safety professional on an individual basis. If deemed unsuitable by experience of qualification, the safety representative will be replaced at the subcontractor’s expense.

1.2.1.2 Subcontractor’s safety representative shall actively participate in all meetings and job walks as specified by McCownGordon Construction. On site availability of the safety professional is at the discretion of McCownGordon Construction.

1.2.1.3 Below is the requirement for Subcontractor’s Safety Representative to visit the site based on this Subcontractor’s manpower onsite.

1.2.1.3.1 1-10 workers Safety Rep 1 day a week

1.2.1.3.2 11-20 workers Safety Rep 2 days a week

1.2.1.3.3 21-40 workers Safety Rep 3 days a week

1.2.1.3.4 40+ workers Safety Rep is fulltime

1.2.1.4 Provide all provisions necessary to meet OSHA requirements for work performed under this scope. This includes proper PPE utilized correctly. Hardhats, safety glasses, and high visibility vests/shirts will be worn at all times. This includes all workers and delivery personnel.

1.2.1.5 All temporary power sources must be GFCI protected, it is the responsibility of each Subcontractor to confirm or provide GFCI protection per OSHA standards.

1.2.1.6 Included are all costs associated with OSHA compliance when dealing with environmental issues during work activities. All signage, tie off points, etc. required to comply with all local, state, federal and owner/contractor requirements for this scope of work.

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- 1.2.1.7 Verification of all existing utilities as required to complete the work for this project to be included under this bid package. Including coordination with McCownGordon Construction, owner of the project and/or property, and the utility companies as applicable. Private locates are required for all utilities not covered under the 811 call system. All private locates are at the expense of subcontractor performing the work to include subcontractor subcontractors. Any cutting, drilling, coring, etc. of existing slabs, subcontractors will be required hire and pay for ground penetrating/scanning before this work is started.
- 1.2.2 MGC Safety Forms/Procedures
 - 1.2.2.1 All subcontractor personnel are required to attend a site-specific safety orientation prior to working on site.
 - 1.2.2.2 Forms will be required from all contractors. These forms include but are not limited to the following:
 - 1.2.2.2.1 Method of Procedures (MOP)
 - 1.2.2.2.1.1 Subcontractor to fill out form for all high hazard operations prior to pre-install meetings.
 - 1.2.2.2.2 Competent Person Form
 - 1.2.2.2.2.1 Subcontractor completes form and deliveries to McCownGordon Construction prior to work starting on site. This is the Subcontractor's person who has the knowledge and authority to implement all necessary safety procedures for their scope of work.
 - 1.2.2.2.3 Weekly Safety Inspection Forms
 - 1.2.2.2.3.1 Subcontractor must conduct a formal weekly jobsite inspection and turn the results into McCownGordon Construction.
 - 1.2.2.2.4 Site Specific Fall Protection Plan
 - 1.2.2.2.4.1 Subcontractor is required to submit plan for all work over 6' in height. This is to be submitted to the onsite superintendent prior to work starting on site.
- 1.2.3 Air Containments and Monitoring
 - 1.2.3.1 When powered equipment, other than electrical, is utilized inside an enclosed area, continuous air monitoring must occur, and documentation of air results must be maintained and submitted to the daily. This includes the operation of such equipment as diesel powered welding machines, gas generators, diesel powered forklifts, quickie saws, etc. Each subcontractor, and any tier, is responsible for providing such air monitoring equipment and training to its employees.
 - 1.2.3.2 Special OSHA Silica Enforcement Provisions:
 - 1.2.3.2.1 There shall be NO "dry" cutting, grinding, large bore drilling of concrete, CMU or other silica containing material. All dust containing silica must be collected in accordance with applicable NIOSH, ANSI, OSHA and governing Authorities having jurisdiction.
 - 1.2.3.2.2 Subcontractor and their tiered subcontractors will be responsible for ensuring any operations generating dust shall use necessary means to control the dust and minimize or remove exposures. This includes, but is

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- not limited to haul roads, grinding, drilling, chipping, hammering, sawing, polishing and cutting operations, etc.
- 1.2.3.2.3 McCownGordon Construction reserves the right to require subcontractor to perform additional air monitoring.
- 1.2.3.2.4 When applicable, sweeping compound shall be used to control nuisance dust from daily sweeping of working surfaces.
- 1.2.3.2.5 Subcontractor and their tiered subcontractors will be responsible for ensuring appropriate PPE for any exposures or supply McCownGordon Construction with Negative Exposure Assessments confirming exposure limits are below those established by OSHA, NIOSH, EPA or other governing authorities for the specific exposure. This includes, but is not limited to, nuisance dust and silica from operations, drilling and cutting operations, metal fume and hexavalent chromium from hot work operations, etc.
- 1.2.4 Cleanup
 - 1.2.4.1 Subcontractor shall clean up and place trash in dumpsters furnished by others on a daily basis or as directed by McCownGordon Construction's Superintendent. Subcontractor will also be responsible for participating in a composite clean-up crew. Clean-up by composite crew is to take place one (1) day per week, or as directed by the McCownGordon Construction's Superintendent
- 1.2.5 Temporary Light and Power
 - 1.2.5.1 The Contractor, through the electrical subcontractor, shall provide building temporary 120-Volt power to panels for use by Subcontractors. All power requirements other than 120V will be the Subcontractor's responsibility. When the permanent power system is ready, it shall be made available for temporary use as required. Subcontractors need to provide GFCI protection for their own work.
 - 1.2.5.2 Each Subcontractor shall provide their own extension cords and fittings as required.
 - 1.2.5.3 The General Contractor, through the electrical subcontractor, will provide general lighting and lighting for stairwells per OSHA. Each Subcontractor will be responsible for any specific task lighting requirements over and above the general lighting provided by the Contractor.
- 1.2.6 Drinking Water
 - 1.2.6.1 Subcontractor will be responsible for their own drinking water and ice.
- 1.2.7 Temporary Toilets
 - 1.2.7.1 McCownGordon Construction shall provide proper sanitary arrangements for workmen. Such facilities shall be kept clean and maintained in accordance with the requirements of regulatory authorities having jurisdiction.
 - 1.2.7.2 Under no circumstance should the existing restrooms in the occupied facility be used by construction workforce. Failure to adhere to this requirement may result in removal from the project site.
- 1.2.8 Flagmen and Traffic Regulations
 - 1.2.8.1 Subcontractor will be required to provide their own flagmen for Work requiring flagmen such as deliveries, hauling material from site, etc., or as directed by the Project Superintendent.
 - 1.2.8.2 Where streets now in use are within or adjacent to the Work, keep the passageways

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of such streets open to vehicular and pedestrian traffic from building frontage thereon. Maintain continual access for police, fire, and ambulance service. Keep all roadways clean from debris as required by county, city, and state, and McCownGordon Construction requirements.

- 1.2.8.3 Any road closure permits necessary for contractor's scope of work are the sole responsibility of the Subcontractor.
- 1.2.9 Barriers and Snow/Ice Removal
 - 1.2.9.1 Subcontractor shall properly protect and safeguard Subcontractor's work. The Owner or McCownGordon Construction shall not, in any way, be liable or responsible for the damage or loss to the Work due to trespass or theft.
 - 1.2.9.2 Subcontractor shall provide removal of snow, ice and/or water as required to perform their own scope of work.
- 1.2.10 Protection of Work
 - 1.2.10.1 Subcontractor shall be required to protect existing work from damage due to this Subcontractor's operations. If this Subcontractor damages the work of others, it is this Subcontractor's responsibility to repair and/or replace the damaged work. Subcontractor shall use specified materials as is required to comply with the Contract Documents and provide all guarantees and warranties as were in place or to be in place upon acceptance by the Owner. Subcontractor shall endeavor to have the original installer make the required repairs at this Subcontractor's costs.
 - 1.2.10.2 In the event of a dispute over who damaged or caused damage to a portion of the work, McCownGordon Construction shall make such determination and require the Subcontractor to make the required repairs. If the Subcontractor fails to provide the repairs, McCownGordon Construction will take such action to make the repair at the cost to the Subcontractor causing the damage as determined at McCownGordon Construction's sole discretion.
 - 1.2.10.3 Security of materials, tools, equipment, etc., is the responsibility of each Subcontractor for their own materials, tools, equipment, etc. Each Subcontractor shall be responsible for properly barricading, protecting, and safeguarding his work. The Owner or Contractor shall not in any way be liable or responsible for the damage or loss to the work due to trespass, theft, and/or vandalism.
 - 1.2.10.4 Subcontractors shall take measures to preserve, protect, and keep clean floors. Subcontractor is responsible for cleaning floors back to the condition they were before starting their work. Drop cloths shall be used to prevent construction materials from soiling such floors. The rubber tires of lifts and equipment shall be covered so as to not leave tire marks on floors. Lifts must have under carriage covers to prevent leaks from lifts/equipment from damaging floors.
 - 1.2.10.5 This Subcontractor is aware of the roofing material on this project and that it can be easily damaged. Subcontractor to take all necessary precautions as required to protect this roof and further agrees to be responsible for all damage that may result from this Subcontractor's activities.
- 1.2.11 Access | Loading
 - 1.2.11.1 Subcontractor is required to observe all loading limits of the facility and site and shall not overload any portions of the facility or site. Subcontractor shall be required to provide all access ramps, shoring and dunnage as may be required to properly access

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the work area and all other safety devices as may be necessary. The utilization of power lifts (i.e. scissor lifts, boom lifts) shall be reviewed on a case-by-case basis. Subcontractor shall be required to implement additional safety provisions as required for the utilization of motorized lifts. Extra care shall be given at edges where tipping of lifts is possible.

1.2.12 Storm Water Management Plan (SWMP)

1.2.12.1 McCownGordon Construction has developed and implemented a Storm Water Management Plan (SWMP) to address the local, state and Federal stormwater permitting requirements. The permit requires and the SWMP identifies controls MGC must implement and maintain throughout the length of the project to minimize or prevent pollutants from collecting in stormwater and be carried off site. Controls include but are not limited to the following: inlet protection, vehicle tracking controls, perimeter containment controls (such as silt fence and straw wattles), concrete washout areas and secondary containment for petroleum products and hazardous materials.

1.2.12.2 It is each Subcontractor's responsibility to avoid disturbance, damage or removal of the SWMP controls. If the Subcontractor's scope of work requires disturbance or removal of the SWMP controls, it is that Subcontractor's responsibility to discuss with McCownGordon staff the need for the disturbance or removal and obtain approval prior to the disturbance or removal.

1.2.12.3 It will be this Subcontractor's responsibility to provide sufficient labor, materials, equipment, and other items necessary to remove and replace back controls to their optimum condition. Any disturbance or removal that is required must be restored to optimal working condition, in accordance with the SWMP, by the Subcontractor. The SWMP contains design details on how controls must be installed. McCownGordon staff can provide those design details as needed.

1.2.12.4 Any blatant, malicious, or accidental acts by any Subcontractors employees that damage or destroy controls will be replaced and restored to optimum condition and costs incurred will be passed on to the offending Subcontractor.

1.2.12.5 Specific requirements regarding stormwater controls include, but are not limited to, the following:

1.2.12.5.1 All concrete waste must be disposed of in the designated concrete washout area. Disposal outside the washout area is not acceptable. Any spoils left from removal, accidental spills, or similar situations must be cleaned up and either disposed of offsite or placed in the designated concrete washout area.

1.2.12.5.2 If subcontractors store any petroleum, hazardous materials, paint, and other pollutant materials on site they must be clearly marked and stored in a safe location (covered and contained) so they cannot be accidentally spilled or intermixed with stormwater runoff. Any excess materials not used on site must be removed from the project by the Subcontractor. The Subcontractor will be back charged for any materials left on site that must be disposed of by MGC.

1.2.12.5.3 All items, materials, or stockpiles that are a potential pollutant source are required to be barricaded, contained, or stabilized in an acceptable manner to prevent them from becoming a pollutant, or environmental

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issue as defined by the EPA, state, and local requirements.

1.2.12.5.4 This section does not identify all possible scenarios or conditions regarding stormwater permit compliance. Any issues or questions by Subcontractors should be discussed with MGC project staff as they arise. It shall be Subcontractor's responsibility to coordinate and comply with the requirements and conditions of the SWMP and Permit. Any fees assessed MGC for an act by a Subcontractor for non-compliance with the SWMP will be passed on to the offending Subcontractor.

1.2.13 Special Requirements

1.2.13.1 Subcontractor and sub-subcontractors are required to provide ten-hour Occupational Safety and Health Administration (OSHA) construction safety program for on-site employees which includes a course in construction safety and health approved by OSHA or a similar program approved which is at least as stringent as an approved OSHA program prior to being on the Project site.

1.2.13.2 Subcontractor include in all sub-subcontracts are required to comply with the Wage Order as is required by Missouri law and insure that all subcontractors and sub-subcontractors on the Project pay workmen not less than the prevailing hourly rate of wages, including the prevailing rate for legal holidays and overtime work, for each craft or type of workman required to complete the project, as now or hereafter established by the Missouri Department of Labor.

1.3 Project specific Safety

1.3.1 N/A

1.4 Site Specific Safety Plan

1.4.1 McCownGordon will create a project-specific Safety plan. All subcontractors are expected to follow the guidelines of this plan.

00 21 03 – Document Management

1.5 Project Management Software

1.5.1 McCownGordon utilizes Procore for all electronic project document management. Each Subcontractor is required to use this software.

1.5.2 This software is free to Subcontractor, but Subcontractor will be required to use this management system daily. McCownGordon Construction will provide necessary training and supplementary instructions as required.

1.6 Drawings and Specifications

1.6.1 All project drawings and specifications are maintained electronically on Procore.

1.6.2 If desired, hard copies of project documents are the responsibility of the Subcontractor to procure. McCownGordon will not provide paper copies of any project documentation.

1.7 Submittals and Shop Drawings

1.7.1 Electronic submittals are required and shall be submitted to McCownGordon project team.

1.7.2 Samples shall be submitted in quantities as dictated by the individual specifications.

1.7.3 All submittals, shop drawings and samples shall be submitted as required to maintain the project schedule, but no later than 3 weeks from receipt of notice to proceed.

1.7.4 Provide all mock-ups and samples as indicated by the contract documents. Include mock-up fabrication on the jobsite and removal following completion of work.

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- 1.8 Procurement
 - 1.8.1 Complete scope of work/bid form table for applicable scopes.
 - 1.8.2 All necessary “quick-shipping”, material expediting, procurement expediting and costs necessary to meet the scheduled completion date per the construction schedule is to be included.
- 1.9 Pay Applications
 - 1.9.1 All monthly progress and final billings are required to be submitted through Procore’s “Invoicing” function. Instructions for this function will be provided upon award of a scope of work.
- 1.10 Change Orders
 - 1.10.1 Any pricing requested for changes in the work shall be submitted within one week.
 - 1.10.2 All pricing shall be broken down with the following detail;
 - 1.10.2.1 Labor, material, equipment, overhead and profit
 - 1.10.2.1.1 Labor must be broken down by labor rate and hours
 - 1.10.2.2 Lump sum pricing will not be accepted.
 - 1.10.3 Change order proposals shall include costs for all required insurance, bonds, permits, fees, etc.
 - 1.10.4 Markup for profit and overhead on change orders shall have the following limitations
 - 1.10.4.1 10% for work performed by own forces
 - 1.10.4.2 5% for work performed by other than own forces
 - 1.10.5 Any pricing of field work tickets that are generated in the field by McCownGordon should be submitted within one week.
- 1.11 Closeout
 - 1.11.1 All manufacturer warranties, owner and maintenance manuals, operating instructions, etc. are to be submitted to McCownGordon within 30 days of being requested.
 - 1.11.2 As-built drawings shall be maintained and updated throughout the project and submitted to McCownGordon for review and verification on a monthly basis.
 - 1.11.3 Final as-built drawings shall be submitted no later than two weeks after substantial completion.

00 21 04 – Layout

- 1.12 Unless explicitly stated in the specific work package, building corner and control points shall be provided by McCownGordon appointed licensed surveyor. All other layout required to complete each Subcontractor’s work shall be the responsibility of the Subcontractor
- 1.13 Subcontractor to provide all private and public locates as required to complete their scope of work. And damages incurred to public or private utilities will be the responsibility of the Subcontractor.
- 1.14 If applicable, examination of existing field conditions is the responsibility of the bidder PRIOR to submitting a bid. No additional costs will be paid for failure to sufficiently examine existing conditions.

00 21 05 – Meeting Schedule

- 1.15 Meetings
 - 1.15.1 Approximately 2 weeks prior to starting trade-specific work, McCownGordon will schedule a meeting to review scope details and coordination. Attendance by the project manager and field foreman is mandatory for these meetings. Additional attendees may be required as

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necessary.

- 1.16 Weekly onsite progress meetings should be anticipated. Each Subcontractor will have representation present at each weekly meeting. This representation will possess knowledge on the scope of work, procurement, manpower, etc. and have the authority to make decisions for this contractor concerning schedule and pricing.

00 21 06 – Quality Control

- 1.17 McCownGordon has a quality control/quality assurance program that all Subcontractors shall be required to participate.
- 1.18 Site Specific Quality Assurance Quality Control Plan
- 1.18.1 McCownGordon will create a Site Specific Quality Assurance Quality Control plan. All subcontractors are expected to follow the guidelines of this plan.

00 21 07 – Coordination

- 1.19 McCownGordon has a quality control/quality assurance program that all Subcontractors shall be required to participate.
- 1.20 Overall building permit provided by others. Subcontractor shall be responsible for all permits required to complete their respective scope of work.
- 1.21 Subcontractor shall be responsible for coordination with the McCownGordon Construction, other Contractors, Subcontractors and the Owner. Change orders will not be issued for failure to coordinate.
- 1.22 Coordinate all deliveries and storage of materials onsite with McCownGordon Superintendent.
- 1.23 Subcontractor shall be responsible for any and all scaffolding or hoisting requirements to complete their scopes of work.
- 1.24 If Subcontractors scope of work requires sleeves, coring, saw cutting etc. to facilitate their scope of work, it is the responsibility of that Subcontractor to provide these measures. This includes x-ray investigation of slabs/walls prior to coring. Any resultant damages or cleanup from coring/saw cutting will be the responsibility of the Subcontractor to remediate.
- 1.25 Each Subcontractor must provide the necessary manpower to monitor, protect and adjust their work items placed in concrete, masonry, grouting, etc. to ensure alignment of finished product.
- 1.26 Any scope of work performing any excavations, trenching or earthwork must be familiar with the Geotechnical Report and bid their work accordingly. Any spoils generated must be removed from the site within one week or stockpiled onsite as approved by the Superintendent.
- 1.27 Each Subcontractor must coordinate with the roofing contractor in order to schedule installation of roofing penetrations prior to roofing system installation.

00 21 08 – Virtual Construction | BIM

- 1.28 This project will utilize 3D modeling and coordination. All trades shall review the BIM Supplemental Instructions [clarify location in project manual] and participate fully as indicated for their respective scope of work.

00 21 09 – Schedule Coordination and Phasing

- 1.29 Subcontractor's work shall be completed in accordance with durations shown in the project schedule, providing appropriate levels of manpower to meet or exceed the project schedule durations. The project schedule will be reviewed at each weekly progress meeting. All modification to the schedule at the progress meeting will be sent out with the meeting minutes and will become a Contract Document,

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superseding the original bid/contract schedule.

1.29.1 Include multiple mobilizations in accordance with schedule requirements.

- 1.30 Upon award (or prior to) of Subcontractor work Order, each Sub/Vendor shall submit to MGC a detailed man-loaded schedule showing compliance with the project schedule dates. The schedule will be updated monthly at a minimum. Subs/Vendors will be requested to participate in schedule updates. Whether present or not Subcontractors shall adhere to the results of the schedule updates.
- 1.31 Subcontractor has included all costs associated to meet the project schedule as defined, and including but not limited to:
- 1.31.1 Costs associated with material, rental or labor escalation.
 - 1.31.2 Costs associated with material expediting.
 - 1.31.3 Costs associated with overtime, and or premium time for work that cannot be completed during normal working hours.
- 1.32 Subcontractor shall furnish all provision including, but not limited to all labor material, power, and equipment for hot and cold weather practices as required to meet the project schedule
- 1.33 Allowed weather days are included in Contractors contract with the Owner. For any additional weather days, Subcontractor shall document in writing to the Contractor on a monthly basis all days on which critical path work could not be performed due to the effects of inclement weather, in increments of ½ days. Subcontractor hereby specifically and expressly waives any monetary compensation for any weather delays. Calendar days shall be used as the basis of tracking lost days.
- 1.34 Projected weather days are incorporated into the bid/contract schedule.

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BID PACKAGE 00 54 36 – BUILDING INFORMATION MODELING EXHIBIT

1. **General**

1.1 Summary

- 1.1.1 Models will be prepared by each individual trade for the coordination process. All relevant models will be incorporated into one review file for use during coordination meetings; similarly, the 2D trade coordination drawings will be compiled into one set of review drawings.
- 1.1.2 Autodesk BIM 360 Glue and Navisworks Manage and will be used to expedite the coordination process, review clashes and reach consensus on solutions. A free Navisworks viewer (Navisworks Freedom) is available and should be used by subcontractors to view the coordination model.
- 1.1.3 It is understood that drawings, models and specifications are scope documents which indicate the work and intent of the project and, as such, the drawings and specifications do not necessarily indicate or describe all work required for the full performance and completion of the work. This subcontract is awarded on the basis of such scope documents with the understanding that the subcontractor is to furnish and install all items required for the proper completion of his work without adjustment to the subcontractor price.
- 1.1.4 If the subcontractor does not have the in-house capability/capacity to produce the required model(s) they may utilize the services of a 3rd party modeling service subject to McCownGordon's approval or be assigned a modeling company by McCownGordon to provide said services. The cost of these services, however procured, shall be included in the subcontractor's cost of work and bid proposal.
- 1.1.5 All subcontractors are required to coordinate amongst each other outside of and prior to the regularly scheduled BIM meetings to resolve any issues that do not require architectural revisions. The regularly scheduled BIM meetings are not to be used for general coordination.

2. **Products**

2.1 Software

- 2.1.1 Subcontractor shall provide the team with AutoCAD and Navisworks NWC files for their scope of work.
- 2.1.2 The coordination modeling software will be Navisworks Manage. The subcontractor shall convert all files necessary for compatibility with Navisworks Manage through BIM 360 Glue, prior to issuance to the model manager.

2.2 Drawings and Models

2.2.1 Base Drawings

- 2.2.1.1 2D CAD base drawings (architecture and structure) will be provided from the design documents.
- 2.2.1.2 Any additional preparation required to make the drawings sufficient for coordination purposes (steel elevations, etc) will be provided prior to the start of coordination. These base drawings shall be used by all subcontractors for the coordination effort.

2.2.2 Coordination/Shop Drawings

- 2.2.2.1 3D coordination models will be produced by each trade, to be combined into one coordination model by McCownGordon for the coordination meetings.
- 2.2.2.2 2D shop drawing submittals shall be produced by each trade following the sign-off of a conflict free coordination model

2.2.3 Record/As-Built Drawings

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- 2.2.3.1 Subcontractors shall maintain their model(s) during construction to match the 'as-built' condition of their installed work.
- 2.2.3.2 Subcontractors shall provide as-built updates to McCownGordon on a monthly basis as part of the requisition process.
- 2.2.3.3 All electronic as-builts shall be turned over to the owner as part of the close out documents.

3. **Execution**

3.1 Coordination Process

3.1.1 Kickoff Meeting

- 3.1.1.1 McCownGordon will schedule, prior to the start of coordination, a kickoff meeting to discuss coordination specifics.
- 3.1.1.2 Each subcontractor shall attend with their project manager, foreman and modeler.

3.1.2 Coordination Meetings

- 3.1.2.1 Each trade contractor is required to take part in regular coordination review meetings. The time and place for these meetings will be established by McCownGordon.
- 3.1.2.2 The purpose of the coordination meeting is to resolve interferences between building systems that could not be resolved by the ongoing coordination efforts between subcontractors. The coordination meeting is NOT the primary venue for resolving conflicts; subcontractors must work collaboratively to coordinate their work outside of this meeting.
- 3.1.2.3 Subcontractors' foreman, modeler/draftsperson and/or person authorized to act and make decisions on behalf of their organization shall attend each coordination meeting. Virtual attendance via telephone and the web may be acceptable if approved by McCownGordon in advance.
- 3.1.2.4 If conflicts are identified and a resolution is agreed upon it is the subcontractor's responsibility to make the necessary changes in their model and republish said model to the project file sharing site at least 24 hours prior to the next meeting unless another timeframe is agreed upon.

3.1.3 Order of Modeling

- 3.1.3.1 Unless otherwise noted in the bid packages and subcontract agreement, the sheet metal contractor shall model first and shall publish their model with major trunk lines and risers shown which will serve as the basis for the other trades to begin their individual models.
- 3.1.3.2 The order of subcontractors modeling efforts shall be: sheet metal, mechanical piping, plumbing, fire protection and electrical. Modeling/drawing shall be in sequence by trade once sheet metal has posted their initial files unless agreed upon by all parties. Any subcontractor who draws out of sequence will re-coordinate their scope at their own cost should there be conflicts.

3.1.4 Sign-off drawings

- 3.1.4.1 Upon completion of coordination activities for a floor or area as deemed appropriate by McCownGordon, a 2D drawing or series of drawings (extracted from the models) representing the floor or area will be compiled, plotted and signed by all members

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- participating in the coordination. This document will reference a matching archived NWD model of that coordination.
- 3.1.4.2 2D shop drawing submittals shall be produced by each trade following the sign-off of a conflict free coordination model
 - 3.1.4.3 Note: the intent of a coordination model is to ensure that building systems have adequate space to be installed, operated and maintained. A coordination model may contain clashes but still be ready for sign-off; these clashes may be within construction tolerances or be able to be resolved in the field. They shall be identified and agreed upon by the project team or McCownGordon prior to proceeding.
- 3.1.5 Information Sharing
- 3.1.5.1 Coordination files will be saved to the project file sharing site, Procore, for access by all trades, McCownGordon and the owner's representative. It will be the subcontractor's responsibility to maintain the appropriate models in the correct file at all times.
 - 3.1.5.2 Model updates will be posted weekly. The subcontractor shall issue a notification via email to each of the other coordination team members notifying them that new information is available for upload unless the file share site provides notifications automatically. Email shall not be the primary method of delivering model files or drawing updates.
- 3.1.6 Change Conditions
- 3.1.6.1 In the event the design changes are issued by approved bulletin, CCD or other method which will result in changes in the model/models, it is the responsibility of the subcontractor to make any and all changes required for coordination and compliance with the design in conjunction with the design team.
 - 3.1.6.2 The trade contractor may include the cost of modeling and coordination if warranted into their request for change authorization.
 - 3.1.6.3 Model coordination, trade coordination and field coordination required as part of the general BIM services shall not be grounds for a cost change.
- 3.2 3D Modeling
- 3.2.1 Overall content and conventions:
 - 3.2.1.1 Each trade contractor will be responsible for producing the 2D drawings and 3D models necessary to represent their complete scope of work.
 - 3.2.1.2 All elements must be drawn to scale and shall be a true representation of what is to be installed in the field in all three dimensions.
 - 3.2.1.3 One common file origin or project insertion point (x,y,z) shall be agreed upon by the project team. Any conflicts that arise due to non-adherence with the insertion point shall be the responsibility of the non-compliant trade contractor. Any files that are submitted without a graphic insertion point or with an incorrectly placed insertion point will be rejected.
 - 3.2.1.4 Posted trade coordination drawings/models should contain only the scope for that trade plus the agreed upon insertion point.
 - 3.2.1.5 File naming convention: file names shall be descriptive to include author, date and floor level.
 - 3.2.1.6 Working units, unless otherwise specified, shall be in inches.

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- 3.2.1.7 All trades must use a separate color as follows or as agreed upon for each trade:
 - 3.2.1.7.1 Architecture: White
 - 3.2.1.7.2 Structural Steel: Maroon
 - 3.2.1.7.3 Concrete: Gray
 - 3.2.1.7.4 HVAC Equipment: Gold
 - 3.2.1.7.5 HVAC Supply Duct/Diffuser: Blue
 - 3.2.1.7.6 HVAC Return Duct/Diffuser: Magenta
 - 3.2.1.7.7 HVAC Pipe: Gold
 - 3.2.1.7.8 Electrical Equipment: Dark Yellow
 - 3.2.1.7.9 Electrical Conduits: Light Yellow
 - 3.2.1.7.10 Communication Conduit: Light Blue
 - 3.2.1.7.11 Electrical Cable Tray: Dark Orange
 - 3.2.1.7.12 Electrical Lighting: Yellow
 - 3.2.1.7.13 Plumbing Water: Cyan
 - 3.2.1.7.14 Plumbing Sewer: Magenta
 - 3.2.1.7.15 Plumbing Storm Drain: Green
 - 3.2.1.7.16 Fire Protection: Red
 - 3.2.1.7.17 Pneumatic Tube: Dark Green
 - 3.2.1.7.18 Equipment (Medical): Light Green
 - 3.2.1.7.19 Medical Gas: Light Green
 - 3.2.1.7.20 Security Systems: Orange
 - 3.2.1.7.21 Fire Alarm: Fuchsia
- 3.2.2 Stratification
 - 3.2.2.1 Each trade will be assigned specific work zone elevations (top and bottom) to run racks and mains. The assigned trades will take precedence in these areas, when traveling outside of these areas the following rules apply. (Additional rules may be instituted at the first coordination meeting).
 - 3.2.2.1.1 Immovable objects (equipment pads, hoods, shafts)
 - 3.2.2.1.2 Graded piping routed throughout floors (waste, storm drainage, high purity)
 - 3.2.2.1.3 Item coordinated with structure (duct penetrations shown on structural)
 - 3.2.2.1.4 Items located in their designated area (piping zone, pipe rack, cable tray)
 - 3.2.2.1.5 Items that require access (VAV's, shut off valves, fire/smoke dampers, etc.)
- 3.2.3 System Models and Level of Detail (LOD)
 - 3.2.3.1 The level of detail defined in each section below (Modeling Standards) is the minimum level of detail required in the model. Greater detail than the minimum should be incorporated in the model whenever inclusion of such detail will improve spatial or sequencing coordination of the work.
 - 3.2.3.2 Pre-purchased equipment shall be the responsibility of the contractor assigned to receive, install and coordinate the equipment. This subcontractor shall be fully responsible for layout, 3D drawings and coordination of the pre-purchased equipment.

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- 3.2.3.3 Each trade contractor is responsible for modeling protected access zones. Access zones should be drawn at less than 100% shading or transparency as not to obscure the main fixture or element being protected or shall have another similar identifying characteristic.
- 3.2.3.4 Individual model elements (such as VAV boxes, pumps etc.) described in further detail below shall each contain the specific and individual name/information assigned to it as per the design documents, following the approved naming conventions established by the Owner.
- 3.2.4 Modeling Standards
 - 3.2.4.1 HVAC Sheet metal Standards
 - 3.2.4.1.1 All ducts, related accessories (including but not limited to standard dampers, fire dampers, VAV boxes, diffusers, turning vanes, etc.) and HVAC equipment will be modeled.
 - 3.2.4.1.2 Ducts will be modeled to the outside face dimension of duct or duct insulation.
 - 3.2.4.1.3 Hangers and inserts/embeds must be modeled where necessary to coordinate with the work of other trades.
 - 3.2.4.1.4 Access zones shall be modeled for all elements requiring access including but not limited to equipment, fixtures, standard dampers, fire dampers, VAV boxes, diffusers, turning vanes, etc.
 - 3.2.4.1.5 All equipment shall be modeled to its overall height, width and depth.
 - 3.2.4.1.6 All access panels shall be modeled, including access zones above and below.
 - 3.2.4.1.7 In the event that seismic bracing for suspended elements is required by code, such bracing shall be included in the model.
 - 3.2.4.2 HVAC Piping Standards
 - 3.2.4.2.1 All piping, related accessories (valves, air vents, drain valves, flow meters, etc.) and HVAC equipment will be modeled.
 - 3.2.4.2.2 Pipes will be modeled to the outside diameter of the pipe; pipe insulation shall be modeled if present.
 - 3.2.4.2.3 Hangers and inserts/embeds must be modeled where necessary to coordinate with the work of other trades.
 - 3.2.4.2.4 Equipment will be modeled to its overall height, width and depth.
 - 3.2.4.2.5 Access zones shall be modeled for all elements requiring access including but not limited to equipment, fixtures and valves.
 - 3.2.4.2.6 All access panels shall be modeled, including access zones above and below.
 - 3.2.4.2.7 In the event that seismic bracing for suspended elements is required by code, such bracing shall be included in the model.
 - 3.2.4.3 Plumbing and Specialty Piping Standards
 - 3.2.4.3.1 All plumbing, specialty piping, related accessories (valves, air vents, drain valves, flow meters etc.) and equipment will be modeled (piping 1 1/2" diameter or larger). Process piping 2" diameter or larger shall be modeled.
 - 3.2.4.3.2 Pipes will be modeled to the outside diameter of the pipe; pipe insulation

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- shall be modeled if present. Pipe slope will be incorporated in the model.
- 3.2.4.3.3 Hangers and inserts/embeds must be modeled where necessary to coordinate with the work of other trades.
 - 3.2.4.3.4 Equipment will be modeled to its overall height, width and depth.
 - 3.2.4.3.5 Access zones shall be modeled for all elements requiring access including but not limited to equipment, fixtures, valves and cleanouts.
 - 3.2.4.3.6 All access panels shall be modeled, including access zones above and below.
 - 3.2.4.3.7 In the event that seismic bracing for suspended elements is required by code, such bracing shall be included in the model.
- 3.2.4.4 Electrical Standards
- 3.2.4.4.1 All conduit/MC cabling (1 1/2" dia. and larger), power feeds to equipment, switch gear, panels, junction box, floor box and pull station locations will be modeled. Where groups of smaller conduits are run together, a graphic representation of the overall dimension of the grouped conduit must be substituted.
 - 3.2.4.4.2 Light fixtures with above-ceiling space requirements are to be included in the model and coordinated with reflected ceiling plan. All access zones or clearances to maintain light fixtures will also be modeled.
 - 3.2.4.4.3 Equipment and cable tray with access zones to be included in the model. Equipment will be modeled to its overall height, width and depth.
 - 3.2.4.4.4 Equipment and junction box access zones per specification and code (whichever is greater) shall be modeled.
 - 3.2.4.4.5 All access panels shall be modeled, including access zones above and below.
 - 3.2.4.4.6 In the event that seismic bracing for suspended elements is required by code, such bracing shall be included in the model.
- 3.2.4.5 Fire Protection (Sprinkler, Fire Alarm)
- 3.2.4.5.1 All components of the fire protection system will be modeled.
 - 3.2.4.5.2 Access zones shall be modeled for all elements requiring access including but not limited to equipment, fixtures, valves and controllers.
 - 3.2.4.5.3 Locate all piping, valves, fire pump, and sprinkler heads.
 - 3.2.4.5.4 Hangers and inserts/embeds must be modeled where necessary to coordinate with the work of other trades.
 - 3.2.4.5.5 All access panels shall be modeled, including access zones above and below.
 - 3.2.4.5.6 In the event that seismic bracing for suspended elements is required by code, such bracing shall be included in the model.
- 3.2.4.6 Structure
- 3.2.4.6.1 All structural steel shall be modeled, including but not limited to columns, beams, braces, gusset plates, connections, reinforcing plates and angles, pour stops, metal grating, seismic or secondary supports and beam penetrations.
 - 3.2.4.6.2 All concrete structural elements shall be modeled, including but not

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limited to footings, foundations, slabs, walls, columns and beams.

- 3.2.4.6.3 The model elements shall contain non-graphic information that associates each element with its erection sequence as appropriate and identifies the size of the structural element.

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BID PACKAGE 00 24 00 – TRADE SCOPES OF WORK

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BID PACKAGE (1.A) – SURVEYING

1. Trade Specific Scope Outline

- 1.1 Subcontractor is responsible for all items outlined and included in Bidding Documents, Invitation to Bid and General Provisions. Refer to those sections for additional information.
- 1.2 Furnish and install all work required for the complete and total Surveying scope in accordance with Division 00 in accordance with the construction documents including, but not limited to, the following clarifications.
 - 1.2.1 Surveying
 - 1.2.1.1 Complete Surveying and Staking as required for the following
 - 1.2.1.1.1 Building Corner Staking
 - 1.2.1.1.2 Column lines in each direction
 - 1.2.1.1.3 Include all lines and structures for site utilities including but not limited to; water service (domestic and fire), sanitary sewer, storm sewer (including underdrain system), electrical, site lighting
 - 1.2.1.1.4 Utility lines to be marked at 50' intervals.
 - 1.2.1.1.5 Light pole bases
 - 1.2.1.1.6 Monument Signs
 - 1.2.1.1.7 Retaining Walls
 - 1.2.1.1.8 Rough Grade at 50' x 50' grid lines
 - 1.2.1.1.9 Curb, gutter at 25' intervals.
 - 1.2.1.1.10 Sidewalk at 25' intervals
 - 1.2.1.1.11 Property corners and property lines at 50' intervals
 - 1.2.1.1.11.1 Surveyor shall include staking of property corners and property lines a total of (2) separate occasions.
 - 1.2.1.1.12 Calculations as required
 - 1.2.1.1.13 Establish horizontal and vertical control for site and building use
 - 1.2.1.1.14 Provide offsets as coordinated with on-site superintendent
 - 1.2.1.1.15 Surveying to be completing in coordination with McCownGordon superintendent, this will require multiple mobilizations
 - 1.2.2 Unit Prices
 - 1.2.2.1 Unit Price #1 – Hourly rate for work by survey crew complete: normal and overtime rate

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BID PACKAGE 00 24 00 – SCOPE OF WORK SITE CONCRETE (32 13 13)

1. Trade Specific Scope Outline

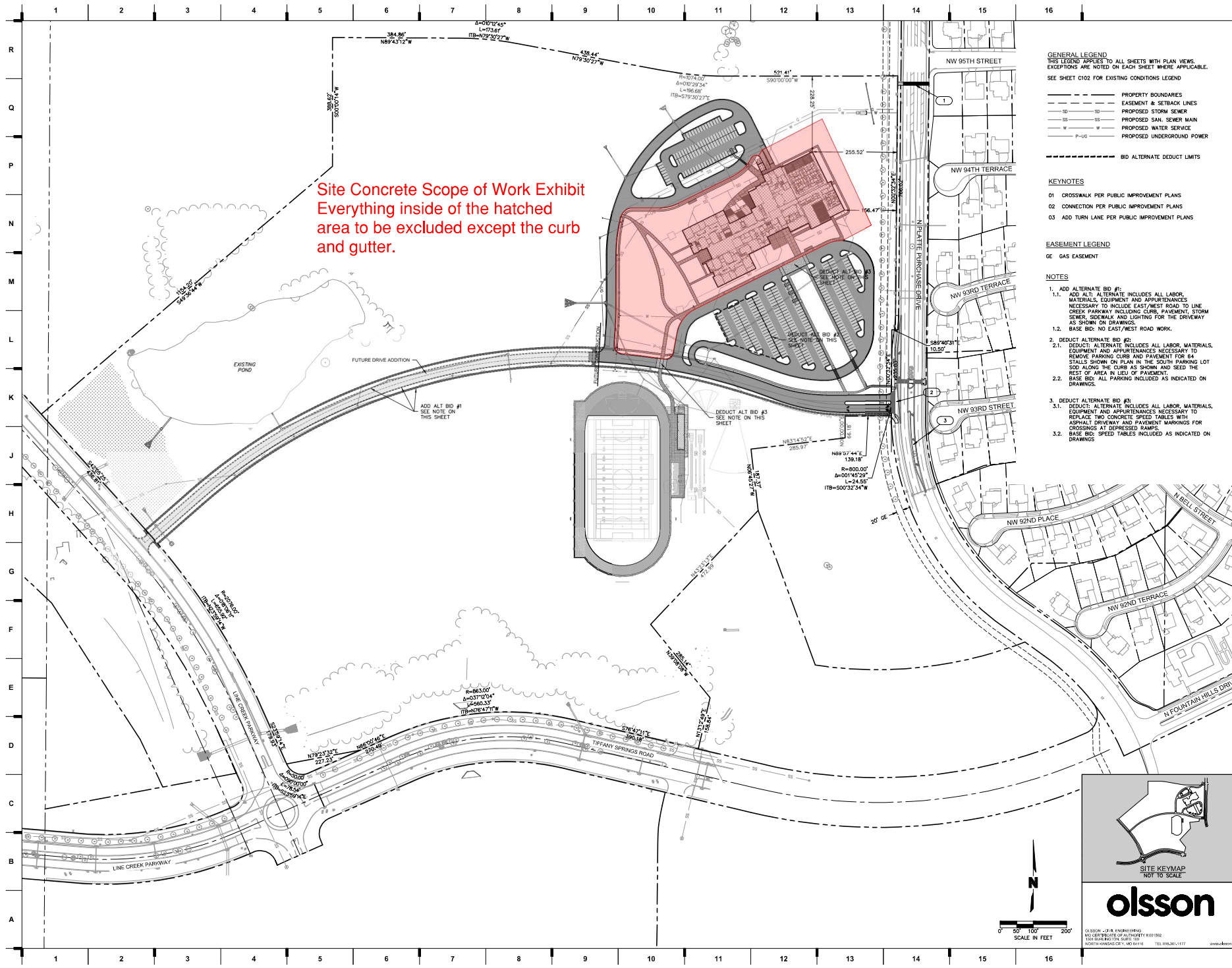
- 1.1 Subcontractor is responsible for all items outlined and included in Contract Documents and General Provisions. Refer to those sections for additional information.
- 1.2 Furnish and install all work required for the complete and total Concrete scope in accordance with Division 32 1313 Concrete Paving, 32 13 73 Concrete Paving Joints Sealants, and 32 52 50 Cast in Place Concrete Paving in accordance with the Contract Documents (plans and specifications including, but not limited to, the following clarifications:
 - 1.2.1 General
 - 1.2.1.1 All work to be completed per ACI standards and/or Contract Documents, whichever is more stringent.
 - 1.2.1.2 Provide dewatering from either surface water or seepage to maintain contract schedule. This includes pumping, removal of mud, muck, etc. out of excavations and replacement with onsite suitable material.
 - 1.2.1.3 Subcontractor to provide all surveying, staking, layout beyond what's included in surveying scope as required to complete this scope of work.
 - 1.2.1.4 Provide all applicable conveyance of concrete and rock material
 - 1.2.1.5 Provide all necessary temporary lighting for concrete pours and finishing as required.
 - 1.2.1.6 Provide separate concrete washout pit or dumpsters as required. Include setup, maintenance, removal and all associated hauling and dump fees.
 - 1.2.1.7 Provide all necessary material handling, hoisting, lifts, ladders, scaffolding, and equipment required for this scope of work.
 - 1.2.1.8 Keep adjacent roads clean and clear of all silt and mud. Subcontractor is responsible for any and all required street cleanup needed due to their own forces and/or sub-tier forces.
 - 1.2.1.9 OSHA-compliant rebar protection, including all maintenance thereof, on all rebar dowels until an area is occupied full-time by other Subcontractors, at which time, the responsibility for maintenance of the protection shall be relinquished to the mobilizing Subcontractor.
 - 1.2.1.10 All laydown, deliveries, and onsite storage are to be coordinated and scheduled with Contractor. On site storage is limited, not guaranteed and will be at Contractor's discretion. If onsite storage is permitted, Subcontractors will be required to relocate material as directed by Contractor at no additional cost.
 - 1.2.1.11 Include all excavation, forming and backfill. Excess spoils to be hauled to on-site area determined by construction manager.
- 1.2.2 Testing requirements
 - 1.2.2.1 Coordinate all inspections of work as required with Contractor.
- 1.2.3 Coordination
 - 1.2.3.1 Provide all required delegated design shop drawings and calculations signed and sealed by a Professional Engineer licensed in the State of Missouri.
 - 1.2.3.2 Subcontractor to provide permit and maintenance bonds as required for work within the public right of way.
 - 1.2.3.3 Subcontractor shall provide lane closures and traffic control devices as required to complete work in the public right of way.

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 24 00 – SCOPE OF WORK

SITE CONCRETE (32 13 13)

- 1.2.4 Site Concrete
 - 1.2.4.1 Furnish and install the following:
 - 1.2.4.1.1 Coordinate elevations with earthwork subcontractor (subgrade to be +/- .10 foot). Concrete contractor to include furnish and install all subbase required for this scope.
 - 1.2.4.1.2 Provide site concrete complete per contract documents.
 - 1.2.4.1.3 Provide sidewalk and exterior flatwork complete per the contract documents. This includes, but is not limited to all site curb and gutter, walks, ramps, concrete paving, mow strips, crosswalks, backfill, etc.
 - 1.2.4.1.4 Provide all layout, hand work, final grading, excavation, backfill, expansion joints, reinforcing, etc. to provide a complete site concrete package.
 - 1.2.4.1.5 Subcontractor shall provide all ice, hot water, and admixtures to complete installation per the schedule.
 - 1.2.4.1.6 Heavy duty concrete paving, including subbase
 - 1.2.4.1.7 ADA accessible ramps per City of Kansas City, Mo standards
 - 1.2.4.1.8 Raised pedestrian table top crossings
 - 1.2.4.1.9 Tactile warning surfaces
 - 1.2.4.1.10 Concrete control joints and expansion joints, including saw cut and hand troweled per drawings. If pattern is not shown, refer to ACI standards.
 - 1.2.4.1.11 All concrete shown as within perimeter of this work package
 - 1.2.4.1.12 Concrete reinforcing materials, including unloading and inventorying of materials at the direction of Contractor.
 - 1.2.5 Allowances
 - 1.2.5.1 Subcontractor shall include 200 lineal feet of damaged curb replacement for use as directed by construction manager.
 - 1.2.5.2 Allowances to be tracked and any savings to be returned
 - 1.2.6 Unit Prices
 - 1.2.6.1.1 Provide breakout value for work completed in public right of way to complete acceleration and deceleration lanes.
 - 1.2.6.2 Unit Price #1 – Additional spoils removal such as removal of soft spots, unsuitable soils etc. Price shall include excavation and removal of material to designated location on site. Bid price will be per cubic yard.
 - 1.2.6.3 Unit Price #2 – Furnish, Grade, and compact additional aggregate rock base material. Bid price will be per ton.
 - 1.2.6.4 Unit Price #3 – Hourly rate for work by carpenter: Normal and overtime Rate.
 - 1.2.6.5 Unit Price #4 – Hourly rate for work by Ironworker: Normal and overtime Rate.
 - 1.2.6.6 Unit Price #3 – Hourly rate for work by Laborer: Normal and overtime Rate.



Site Concrete Scope of Work Exhibit
 Everything inside of the hatched
 area to be excluded except the curb
 and gutter.

GENERAL LEGEND
 THIS LEGEND APPLIES TO ALL SHEETS WITH PLAN VIEWS.
 EXCEPTIONS ARE NOTED ON EACH SHEET WHERE APPLICABLE.
 SEE SHEET C102 FOR EXISTING CONDITIONS LEGEND.

- PROPERTY BOUNDARIES
- EASEMENT & SETBACK LINES
- SD --- PROPOSED STORM SEWER
- SS --- PROPOSED SAN. SEWER MAIN
- W --- PROPOSED WATER SERVICE
- P-UG --- PROPOSED UNDERGROUND POWER
- BID ALTERNATE DEDUCT LIMITS

- KEYNOTES**
- 01 CROSSWALK PER PUBLIC IMPROVEMENT PLANS
 - 02 CONNECTION PER PUBLIC IMPROVEMENT PLANS
 - 03 ADD TURN LANE PER PUBLIC IMPROVEMENT PLANS

EASEMENT LEGEND

- GE GAS EASEMENT

NOTES

1. ADD ALTERNATE BID #1:
 1.1. ADD ALT. ALTERNATE INCLUDES ALL LABOR, MATERIALS, EQUIPMENT AND APPURTENANCES NECESSARY TO INCLUDE EAST/WEST ROAD TO LINE CREEK PARKWAY INCLUDING CURB, PAVEMENT, STORM SEWER, SIDEWALK AND LIGHTING FOR THE DRIVEWAY AS SHOWN ON DRAWINGS.
2. BASE BID: NO EAST/WEST ROAD WORK.
2. DEDUCT ALTERNATE BID #2:
 2.1. DEDUCT: ALTERNATE INCLUDES ALL LABOR, MATERIALS, EQUIPMENT AND APPURTENANCES NECESSARY TO REMOVE PARKING CURB AND PAVEMENT FOR 64 STALLS SHOWN ON PLAN IN THE SOUTH PARKING LOT 500' ALONG THE CURB AS SHOWN AND SEND THE REST OF AREA IN LIEU OF PAVEMENT. BASE BID: ALL PARKING INCLUDED AS INDICATED ON DRAWINGS.
3. DEDUCT ALTERNATE BID #3:
 3.1. DEDUCT: ALTERNATE INCLUDES ALL LABOR, MATERIALS, EQUIPMENT AND APPURTENANCES NECESSARY TO REPLACE TWO CONCRETE SPEED TABLES WITH ASPHALT DRIVEWAY AND PAVEMENT MARKINGS FOR CROSSINGS AT DEPRESSED HAMPS. BASE BID: SPEED TABLES INCLUDED AS INDICATED ON DRAWINGS.

hollis+tmiller
 we design the future™
 1028 Walnut Street Suite 922
 Kansas City, MO 64108
 (816) 412-7700
 115 Wiles Street Suite 218
 Cape Rex, CO 80339
 (703) 949-1840
 HOLLISANDMILLER.COM

Civil Engineer
 State Certificate of Authority #031992
 1931 Burlington Street, Suite 100
 North Kansas City, MO 64116
 (816) 281-1170 phone
 (816) 261-1888 fax

MEPF Engineer
 Professional Engineer
 State Certificate of Authority #020000285
 1931 Burlington Street, Suite 100
 North Kansas City, MO 64116
 (816) 281-1170 phone
 (816) 261-1888 fax

AWIT Engineer
 Professional Engineer
 State Certificate of Authority #C-5500
 8545 Lennox Drive, Ste 300
 North Kansas City, MO 64116
 (816) 742-2000 phone
 (816) 742-2001 fax

Site Development Package

Platte County Middle School
 Platte County School District
 N Platte Purchase Drive & NW 95th,
 Kansas City, MO 64154

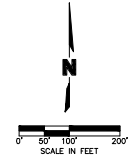
REVISIONS:	Description	Date

JOB NO: 2021
 DRAWN BY: AAGS/JUN/SGL
 CHECKED BY: DE
 DATE: 08.16.2021

olsson
 OLSSON & ASSOCIATES, INC.
 PROFESSIONAL ENGINEERS
 NO. 0017000000 OF AUTHORITY #031992
 1000 BUREAU CENTER, SUITE 100
 NORTH KANSAS CITY, MO 64116 TEL: 816.261.1172 www.olsson.com

C103

GENERAL LAYOUT



8/16/2021 10:08:55 AM

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 24 00 – SCOPE OF WORK *EARTHWORK (31 00 00)*

1. Trade Specific Scope Outline

- 1.1 Subcontractor is responsible for all items outlined and included in Contract Documents and General Provisions. Refer to those sections for additional information.
- 1.2 Furnish and install all work required for the complete and total Earthwork scope in accordance with Division 31 20 00 - Earth moving, 31 10 00 – Site Clearing, 31 32 00 – Soil Stabilization, and 02 41 19 – Selective Demolition in accordance with the Contract Documents (plans and specifications) including, but not limited to, the following clarifications:
 - 1.2.1 General
 - 1.2.1.1 Provide sawcut of paving as required to provide neat demolition
 - 1.2.1.2 Provide immediate haul-off of all demolition items. Disposal in Contractor dumpsters will not be permitted.
 - 1.2.1.3 Subcontractor shall be responsible for all excavation necessary for performance of its services (including, but not necessarily limited to, limestone, shale, sandstone, and other subsurface conditions), all as indicated in, or reasonably inferable by, the geotechnical report.
 - 1.2.2 Testing requirements
 - 1.2.2.1 Coordinate all inspections of work as required with Contractor.
 - 1.2.3 Coordination
 - 1.2.3.1 Coordinate Subgrade elevations/structural excavation with Concrete, Masonry, or Retaining Wall Subcontractors. Structural excavation by others.
 - 1.2.4 Erosion Control
 - 1.2.4.1 Furnish and install all the following:
 - 1.2.4.1.1 Subcontractor to include all siltation and erosion control work per project requirements including but not limited to drop inlet protection, inlet filter protection, including initial installation, maintenance through final stabilization, and removal upon completion of the project. Repair/replace erosion control devices that are damaged, out of position, or have failed within 24 hours of inspection or of written notice by the Owner or Construction Manager. Provide sediment removal as noted within 24 hours of inspection or written notice by the Owner or Construction Manager of such requirement. Any costs or fines
 - 1.2.4.1.2 Tracking of events
 - 1.2.4.1.2.1 Maintain the log and schedule inspections
 - 1.2.4.1.3 Maintain and remove erosion control throughout duration of project.
 - 1.2.5 Site Demolition
 - 1.2.5.1 Demolish all the following:
 - 1.2.5.1.1 Any remnants of asphalt or concrete roadways left on site
 - 1.2.5.1.2 Curb and gutter – As necessary to install work in this scope
 - 1.2.5.1.3 Sidewalks and stairs – As necessary to install work in this scope
 - 1.2.5.1.4 Landscaping and trees
 - 1.2.5.1.5 Wells and Cisterns – including proper paperwork for abandonment with proper authorities.

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 24 00 – SCOPE OF WORK

EARTHWORK (31 00 00)

- 1.2.5.1.6 Abandoned utility components: inlets, storm lines, water lines, roof drains
- 1.2.5.1.7 All remaining structures on site- including pre-engineered metal building.
- 1.2.6 Site Logistics
 - 1.2.6.1 Furnish, install, maintain and remove all the following:
 - 1.2.6.1.1 Subcontractor to include initial installation, maintenance throughout project, and removal of construction entrances (2 Each) per details in construction documents.
 - 1.2.6.1.2 Provide and install 40,000 sf of 6" minus rock, 6" thick with geofabric at the indicated construction parking/laydown area.
 - 1.2.6.1.3 Over-build of crane path 6" of 4-6" rock as indicated on the logistics plan.
- 1.2.7 Mass Excavation
 - 1.2.7.1 Furnish and install all the following:
 - 1.2.7.1.1 Import and export of material as required
 - 1.2.7.1.2 All subgrade to be within +/- .10 feet of designed grade
 - 1.2.7.1.3 Removal of excess spoils as it pertains to this scope of work to location on site directed by construction manager. Spoils generated by others shall be the responsibility of those respective Subcontractors.
 - 1.2.7.1.4 Building pads per the geotechnical report, including LVC.
 - 1.2.7.1.5 Stockpile of topsoil onsite in a location approved by Contractor.
- 1.2.8 Structural Excavation
 - 1.2.8.1 Furnish and install all the following:
 - 1.2.8.1.1 Structural excavation and backfill by others.
- 1.2.9 Allowances
 - 1.2.9.1 Include a \$10,000 allowance within the base bid for miscellaneous rock/grading requirements beyond standard maintenance to be used as directed by Contractor's Superintendent.
 - 1.2.9.2 Allowances to be tracked and any savings to be returned
- 1.2.10 Bid Form Additions
 - 1.2.10.1 Indicate the following additional items to the bid form:
 - 1.2.10.1.1 Provide breakout value for work completed in public right of way to complete acceleration and deceleration lanes.
 - 1.2.10.1.2 40,000 sf of 6" minus rock, 6" thick with geofabric at the indicated construction parking/laydown area
 - 1.2.10.1.3 Over-build of crane path 6" of 4-6" rock as indicated on the logistics plan
- 1.2.11 Exclusions
 - 1.2.11.1 ...
- 1.2.12 Snow Removal/Street Cleaning
 - 1.2.12.1 Subcontractor to include 10 snow removal trips to remove snow from construction laydown, parking areas, and access roads/paths for use as directed by construction manager.

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 24 00 – SCOPE OF WORK
ASPHALT (32 12 16)

1. Trade Specific Scope Outline

- 1.1 Subcontractor is responsible for all items outlined and included in Contract Documents and General Provisions. Refer to those sections for additional information.
- 1.2 Furnish and install all work required for the complete and total Asphalt scope in accordance with Division 32 12 16 – Asphalt Paving, in accordance with the Contract Documents (plans and specifications)] including, but not limited to, the following clarifications:
 - 1.2.1 General
 - 1.2.1.1 Provide cost/liquid ton
 - 1.2.2 Testing requirements
 - 1.2.2.1 Coordinate all inspections of work as required with Contractor.
 - 1.2.3 Coordination
 - 1.2.3.1 Coordinate final grading with Earthwork Subcontractor. Include final grading, proof rolling, and final preparations of all paving areas. Sub-grades will have been brought to +/- 1/10'.
 - 1.2.3.2 Coordinate final topcoat with Contractor and do not perform until directed by Contractor in writing.
 - 1.2.4 Asphalt
 - 1.2.4.1 Furnish and install the following:
 - 1.2.4.1.1 Include all asphalt paving including aggregate base, base course, surface course, and compaction
 - 1.2.4.1.2 Asphalt base course at parking lots will be installed prior to surface course and be utilized for construction parking and laydown. This Subcontractor to include any measures necessary to clean and prepare base course prior to installation of surface course.
 - 1.2.4.1.3 Provide tack coats as required for existing asphalt/new asphalt abut
 - 1.2.4.1.4 Include pricing for asphalt indexing in bid tab.
 - 1.2.4.1.5 All pavement striping, curb painting, site signage and precast wheel stops where shown
 - 1.2.4.1.6 This work package includes fine grading of subgrade prior to installation of base course
 - 1.2.4.1.7 Subcontractor shall include placement of all aggregate base below asphalt paving. Aggregate base below curb, gutter, and sidewalk to be provided by site concrete subcontractor.
 - 1.2.5 Allowances
 - 1.2.5.1 Include allowance for 100 square yards of damaged asphalt replacement as directed by construction manager.
 - 1.2.5.2 Allowances to be tracked and any savings to be returned
 - 1.2.6 Unit Prices
 - 1.2.6.1.1 Provide breakout value for work completed in public right of way to complete acceleration and deceleration lanes.
 - 1.2.6.2 Unit Price #1 - Additional heavy duty asphalt paving, including subgrade prep, base course and surface course. Base bid will be per square yard.
 - 1.2.6.3 Unit Price #2 – Additional regular duty asphalt paving, including subgrade prep, base course and surface course. Base bid will be per square yard.

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 24 00 – SCOPE OF WORK
SITE UTILITIES (33 00 00)



00 11 00 Invitation
To Bid (1).docx

HEADING ABOVE – the Bid Package 00 24 00 refers to the ALL Trade Specific scopes of work. Do NOT edit this number/title. The second heading title/masterspec number references the Engineer/Architect spec section that this scope refers back to.

WHEN SAVING THIS DOCUMENT TO ISSUE AS PART OF THE CONTRACT, USE THE FOLLOWING NAMING CONVENTION:

Project number SWO/PO Company Name (Scope title) – SCOPE e.g.
07-1358 SWO Color Inc (Painting) – SCOPE OR
07-1358 PO Walsh Door (Doors, Frames and Hardware) - SCOPE

1. Trade Specific Scope Outline

- 1.1 Subcontractor is responsible for all items outlined and included in Contract Documents and General Provisions. Refer to those sections for additional information.

List out all applicable specification sections below. Remove “in accordance with the Contract Documents...” verbiage if this is being issued before drawings are provided.

- 1.2 Furnish and install all work required for the complete and total Site Utilities scope in accordance with Division 33 11 00 Water Utility Distribution Piping, 33 31 00 Sanitary utility Sewerage Piping, 33 41 00 Storm Utility Drainage Piping, and 33 46 00 Subdrainage in accordance with the Contract Documents (plans and specifications) including, but not limited to, the following clarifications:

Include below only if project requires the Site Utility Subcontractor to perform any demolition. Edit to suit project.

1.2.1 Selective Demolition

- 1.2.1.1 Disconnect and “make safe” all site utility components prior to demolition

Coordinate with Demolition contract.

- 1.2.1.2 Removal and haul off all site utility components as indicated

- 1.2.1.3 Subcontractor to include demo of all water, gas, storm, and sanitary lines, including removal of existing piping, capping of abandoned penetrations, and adjustment of existing structures as needed.

1.2.2 General

- 1.2.2.1 This Work package includes all site utility work complete. This includes all permits, asphalt/concrete saw-cutting and removal. Removal of existing rock, excavation, piping, structures, fittings, clean-outs, grated inlets, catch basins, rip-rap, and all required backfill and compaction etc. All components to comply with project and city requirements.

- 1.2.2.2 Subcontractor to review geotechnical report prior to bidding. If the existing soils are determined to be unacceptable by the Geotechnical Engineer for use, this Contractor will be responsible to import appropriate material. Fill material to be approved by engineer prior to haul in.

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 24 00 – SCOPE OF WORK

SITE UTILITIES (33 00 00)

- 1.2.2.3 Subcontractor to provide all necessary safety measures including, but not limited to trench covers, safety fencing, etc. as required by construction manager and OSHA.
- 1.2.2.4 Subcontractor to provide all surveying, staking, layout beyond surveyor scope of work as required to complete this scope of work.
- 1.2.2.5 Include final connections of all utilities noted below.
- 1.2.2.6 Include a verification of existing lines or manholes that will be tied in to prior to release of material production.
- 1.2.2.7 Include verification of all existing tie ins prior to material fabrication
- 1.2.2.8 Include any shoring required to complete this scope of work.
- 1.2.2.9 Subcontractor shall complete video/camera check of final sanitary and storm sewer lines upon completion of project prior to owner turnover to verify conditions.

Coordinate with Demolition and Earthwork contracts.

- 1.2.2.10 Include all excavation and fill for underground utilities
- 1.2.2.11 All earthwork (Non-Trash) spoils generated by this scope of work to be spread out on site at location determined by McCown Gordon.
- 1.2.2.12 Include all costs, including permits, tap/connection fees, and traffic controls required for working in public right of way, if necessary.
- 1.2.3 Testing requirements
 - 1.2.3.1 Coordinate all inspections of work as required with Contractor.
- 1.2.4 Coordination
 - 1.2.4.1 Coordinate with the Plumbing Subcontractor and drawings at all building tie in locations.
 - 1.2.4.2 Coordinate with the Fire Suppression Subcontractor and drawings at all building tie in locations.

Edit below to suit project.

- 1.2.4.3 Coordinate installation with designing Subcontractors and authorities having jurisdiction.
- 1.2.5 Storm Sewer
 - 1.2.5.1 Furnish and install all storm sewer piping outside [+/- 5'-0"] of building
- 1.2.6 Sanitary Sewer
 - 1.2.6.1 Furnish and install all sanitary sewer piping outside [+/- 5'-0"] of building
 - 1.2.6.2 Subcontractor shall provide temporary sanitary connections at the trailer location. Assume 400 lineal feet of sanitary line for connections.
- 1.2.7 Domestic Cold Water
 - 1.2.7.1 Furnish and install all domestic cold water piping outside [+/- 5'-0"] of building

Coordinate with site logistics plan.

- 1.2.7.2 Provide two (2) Temporary yard hydrants located by Contractor for all Subcontractors to use. These hydrants will be demolished out when work is complete.
- 1.2.7.3 Subcontractor shall provide temporary water connections at the job trailer location.
- 1.2.8 Fire Protection Water Lines

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 24 00 – SCOPE OF WORK

SITE UTILITIES (33 00 00)

- 1.2.8.1 Furnish and install fire line into the building and turning up above the slab on grade; terminate with flanged connection
- 1.2.9 Pricing Breakout
 - 1.2.9.1 Provide breakout value for work completed in public right of way to complete acceleration and deceleration lanes.

If no allowances needed, delete section below.

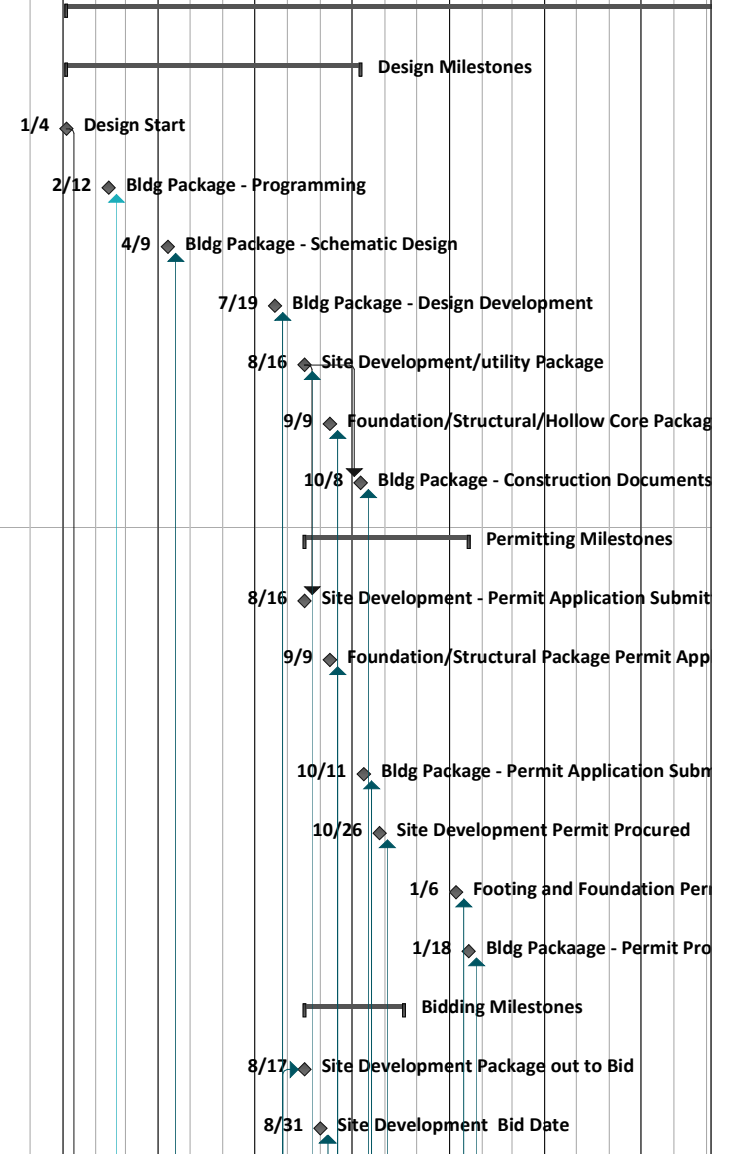
Use this section for any exclusions needed for the project. Remove if not applicable.

Use this section for any other project specific items that do not fit into the categories above; NOT TYPICAL. If you are adding more than 5 items, this is too detailed. Discuss with COM and PX.

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

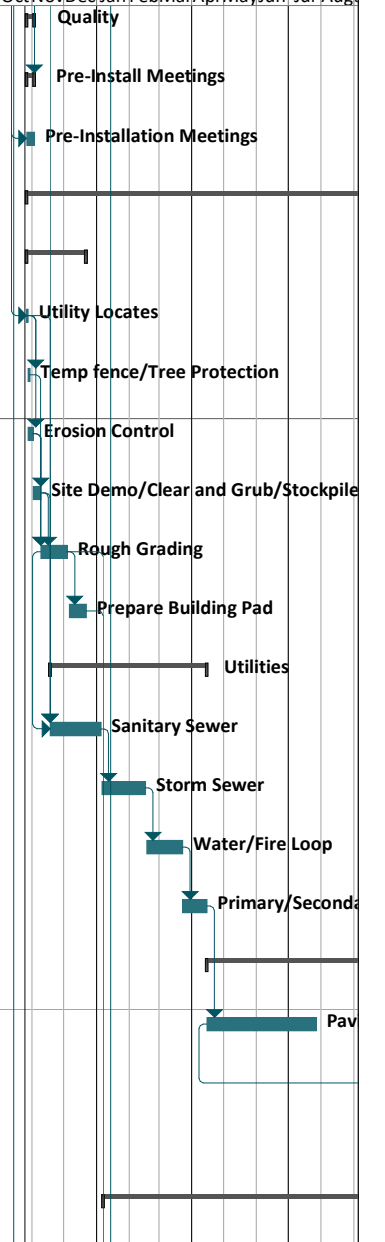
BID PACKAGE 00 31 00 – CONSTRUCTION SCHEDULE AND SEQUENCING

ID	Task Name	Duration	Start	Finish	2nd Quarter AprMayJun	3rd Quarter Jul AugSep	4th Quarter OctNovDec	1st Quarter JanFebMar	2nd Quarter AprMayJun	3rd Quarter Jul AugSep	4th Quarter OctNovDec	1st Quarter JanFebMar	2nd Quarter AprMayJun	3rd Quarter Jul Aug
0	PCR3 New Middle School CMU-hollow plank	588 day	Mon 8/31/21	Tue 6/20/22										
1	1 Project Milestones	621 days	Mon 1/4/21	Mon 6/19/23										
2	1.1 Design Milestones	196 days	Mon 1/4/21	Fri 10/8/21										
3	1.1.1 Design Start	0 days	Mon 1/4/21	Mon 1/4/21										
4	1.1.2 Bldg Package - Programming	0 days	Fri 2/12/21	Fri 2/12/21										
5	1.1.3 Bldg Package - Schematic Design	0 days	Fri 4/9/21	Fri 4/9/21										
6	1.1.4 Bldg Package - Design Development	0 days	Mon 7/19/21	Mon 7/19/21										
7	1.1.5 Site Development/utility Package	0 days	Mon 8/16/21	Mon 8/16/21										
8	1.1.6 Foundation/Structural/Hollow Core Package	0 days	Thu 9/9/21	Thu 9/9/21										
9	1.1.7 Bldg Package - Construction Documents	0 days	Fri 10/8/21	Fri 10/8/21										
10	1.2 Permitting Milestones	104 days	Mon 8/16/21	Tue 1/18/22										
11	1.2.1 Site Development - Permit Application Submitted	0 days	Mon 8/16/21	Mon 8/16/21										
12	1.2.2 Foundation/Structural Package Permit Application Submitted	0 days	Thu 9/9/21	Thu 9/9/21										
13	1.2.3 Bldg Package - Permit Application Submitted	0 days	Mon 10/11/21	Mon 10/11/21										
14	1.2.4 Site Development Permit Procured	0 days	Tue 10/26/21	Tue 10/26/21										
15	1.2.5 Footing and Foundation Permit Procured	0 days	Thu 1/6/22	Thu 1/6/22										
16	1.2.6 Bldg Package - Permit Procured	0 days	Tue 1/18/22	Tue 1/18/22										
17	1.3 Bidding Milestones	67 days	Tue 8/17/21	Thu 11/18/21										
18	1.3.1 Site Development Package out to Bid	0 days	Tue 8/17/21	Tue 8/17/21										
19	1.3.2 Site Development Bid Date	0 days	Tue 8/31/21	Tue 8/31/21										



ID	Task Name	Duration	Start	Finish	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	
					Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
41	3.1 Site disturbance/grading Permit	50 days	Tue 8/17/21	Tue 10/26/21															
42	3.2 Submit 100% CD's for Full Building Permit	1 day	Mon 10/11/21	Mon 10/11/21															
43	3.3 Full Building Permit Review	30 days	Tue 10/12/21	Mon 11/22/21															
44	3.4 Review / Comment Response & Correction	30 days	Tue 11/23/21	Mon 1/10/22															
45	3.5 Footing and Foundation Permit	10 days	Tue 12/21/21	Thu 1/6/22															
46	3.6 Permit Issue - Project	5 days	Tue 1/11/22	Tue 1/18/22															
47	4 Procurement	165 days	Mon 8/31/20	Tue 4/27/21															
48	4.1 Bid/Award	106 days	Mon 8/31/20	Wed 2/3/21															
49	4.1.1 Site Development Package	27 days	Tue 8/17/21	Thu 9/30/21															
50	4.1.1.1 Bidding Site Development Package	10 days	Tue 8/17/21	Mon 8/30/21															
51	4.1.1.2 Site Development Package Bid Date	1 day	Tue 8/31/21	Tue 8/31/21															
52	4.1.1.3 Prepare GMP - Site Development Package	3 days	Wed 9/1/21	Fri 9/3/21															
53	4.1.1.4 Site PKG GMP Review W/PCR3 and H&M	1 day	Tue 9/7/21	Tue 9/7/21															
54	4.1.1.5 Site PKG - Final GMP to PCR3	1 day	Wed 9/8/21	Wed 9/8/21															
55	4.1.1.6 Site Package PCR3 Approval (BOE Meeting)	6 days	Thu 9/9/21	Thu 9/16/21															
56	4.1.1.7 Site Package - Award /Execute Contracts	10 days	Fri 9/17/21	Thu 9/30/21															
57	4.1.2 Foundation/Structural Package	36 days	Fri 9/10/21	Thu 11/4/21															
58	4.1.2.1 Bidding Foundation/Precast Package	12 days	Fri 9/10/21	Mon 9/27/21															
59	4.1.2.2 Foundation/Precast Package Bid Date	1 day	Tue 9/28/21	Tue 9/28/21															
60	4.1.2.3 Prepare GMP - Foundation/Precast Package	7 days	Wed 9/29/21	Thu 10/7/21															
61	4.1.2.4 Foundation PKG GMP Review W/PCR3 and H2 days	2 days	Fri 10/8/21	Mon 10/11/21															

ID	Task Name	Duration	Start	Finish	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter										
					Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
83	5.2 Quality	5 days	Wed 10/27/21	Tue 11/2/21																								
84	5.2.1 Pre-Install Meetings	5 days	Wed 10/27/21	Tue 11/2/21																								
85	5.2.1.1 Pre-Installation Meetings	5 days	Wed 10/27/21	Tue 11/2/21																								
86	5.3 Construction	270 days	Wed 10/27/21	Thu 2/16/23																								
87	5.3.1 Site Work	34 days	Wed 10/27/21	Tue 12/21/21																								
88	5.3.1.1 Utility Locates	1 day	Wed 10/27/21	Wed 10/27/21																								
89	5.3.1.2 Temp fence/Tree Protection	2 days	Thu 10/28/21	Fri 10/29/21																								
90	5.3.1.3 Erosion Control	3 days	Thu 10/28/21	Mon 11/1/21																								
91	5.3.1.4 Site Demo/Clear and Grub/Stockpile Topsoil	5 days	Tue 11/2/21	Mon 11/8/21																								
92	5.3.1.5 Rough Grading	15 days	Tue 11/9/21	Fri 12/3/21																								
93	5.3.1.6 Prepare Building Pad	10 days	Mon 12/6/21	Tue 12/21/21																								
94	5.3.2 Utilities	80 days	Thu 11/18/21	Thu 4/14/22																								
95	5.3.2.1 Sanitary Sewer	25 days	Thu 11/18/21	Tue 1/4/22																								
96	5.3.2.2 Storm Sewer	20 days	Thu 1/6/22	Tue 2/15/22																								
97	5.3.2.3 Water/Fire Loop	20 days	Thu 2/17/22	Tue 3/22/22																								
98	5.3.2.4 Primary/Secondary Pwer	15 days	Wed 3/23/22	Thu 4/14/22																								
99	5.3.3 Landscape/Hardscape	176 days	Fri 4/15/22	Thu 2/16/23																								
100	5.3.3.1 Paving Parking Lots and Drives	60 days	Fri 4/15/22	Tue 7/26/22																								
101	5.3.3.2 Sidewalks/Hardscapes	20 days	Fri 12/16/22	Mon 1/30/23																								
102	5.3.3.3 Landscape /irrigation	20 days	Tue 1/10/23	Thu 2/16/23																								
103	6 Building Construction	302 days	Fri 1/7/22	Mon 6/19/23																								



Crane Road

Parking, Trailers & Laydown area

Crane Road

Additional Equipment & Material Storage

Secondary Entrance, Hauling In/Out Main Drive

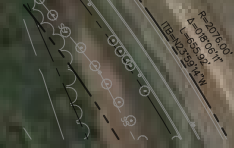
Main Entrance

N Platte Purchase Dr

N Platte Purchase & NW 95th St

NW 93rd

N Platte Purchase



1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 41 00 – BID FORM

Scope of Work/Bid Package #: _____

Company Name: _____

Company Street Address: _____

Company City, ST & Zip: _____

Estimator Name and Phone: _____

Authorized Agent Name and Phone: _____

Check this box if your firm currently has an executed Master Subcontract Agreement (MSA) on file with McCownGordon Construction

Check this box if your firm currently has an executed Material Purchases Agreement (MPA) on file with McCownGordon Construction

Any firm that does not have an executed master agreement (MSA or MPA) on file with McCownGordon Construction shall contact the following individuals to execute a contract prior to bid submission

Mallory Loudenback mloudenback@mccowngordon.com

1.1 **Base Bid**

(Please Submit a Separate Proposal Form for each Bid Package if applicable). The following pricing includes all labor, burden, fringe benefits, materials, tools, equipment, temporary provisions, shipping, fuel, trade permits, markups, fee's, overhead, insurance and bonds in accordance with the bidding documents.

BASE BID AMOUNT \$ _____

1.2 **Cost Breakouts | Schedule of Values**

Additional cost breakouts may be requested in final evaluation of proposals only if necessary or required. Refer to scopes of work for any breakouts and add lines as needed.

Breakout #1: Provide cost work in public right of way for acceleration and deceleration lanes

\$ _____

Breakout #2: _____ \$ _____

Breakout #3: _____ \$ _____

Breakout #4: _____ \$ _____

Breakout #5: _____ \$ _____

Breakout #6: _____ \$ _____

Breakout #7: _____ \$ _____

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 41 00 – BID FORM

Breakout #8: _____ \$ _____
 Breakout #9: _____ \$ _____
 Breakout #10: _____ \$ _____

1.3 Alternates

Indicate if alternate is add or deduct on each item below

Alt: Deduct cost for Performance and payment Bond

_____ \$ _____

Alt #1: East/West Road Extension: Include all labor, materials, equipment and appurtenances necessary to include East/West road to Line Creek Parkway including curb, pavement, storm sewer, sidewalk and lighting for the driveway as shown on drawings:

_____ \$ _____

Alt #2: Parking and Curb Reduction: Include all labor, materials, equipment and appurtenances necessary to remove parking curb and pavement for 64 stalls shown on plan in the south parking lot.

_____ \$ _____

Alt #3: Speed Table Removal: Include all labor, materials, equipment and appurtenances necessary to replace two concrete speed tables with asphalt driveway and pavement markings for crossings at depressed ramps.

_____ \$ _____

Voluntary Alt #4:

_____ \$ _____

Voluntary Alt #5:

_____ \$ _____

1.4 Labor Rates and Unit Pricing:

Hourly Labor Rates (To be completed for each trade as it applies to your Scope of Work).

Wage & Benefits – Special Requirements as outlined in the bid documents shall be incorporated.

TRADE:			
	BASE RATE	OT PREMIUM	DT PREMIUM
Apprentice	\$ _____	\$ _____	\$ _____

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 41 00 – BID FORM

Journeyman	\$	\$	\$
Foreman	\$	\$	\$

TRADE:			
	BASE RATE	OT PREMIUM	DT PREMIUM
Apprentice	\$	\$	\$
Journeyman	\$	\$	\$
Foreman	\$	\$	\$

TRADE:			
	BASE RATE	OT PREMIUM	DT PREMIUM
Apprentice	\$	\$	\$
Journeyman	\$	\$	\$
Foreman	\$	\$	\$

1.5 Unit Pricing

Reference Individual Bid Packages and specifications for requested unit costs to be submitted. All unit costs shall include all related labor, materials, equipment, supervision, overhead, profit, insurance, bonds, etc., complete.

NO	DESCRIPTION	UNIT COST	PER UNIT
		\$	
		\$	
		\$	
		\$	

1.6 Materials and Specifications:

All materials are to be bid per specifications, if bidder wishes to utilize an “approved equal”, as allowed by the specification, then bidder shall include cut sheet of proposed material/item with an estimated cost savings for using the submitted product in lieu of the basis of design. This information shall be provided by the bidder at time of bid

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 41 00 – BID FORM

Bidders must utilize the Pre-Bid Substitution Request Form provided in the Specifications for any materials not meeting the requirements of the specifications. If approval is not received prior to the bid date then such materials will not be accepted.

1.7 **Subcontractor Acknowledgement:**

The project is sales tax exempt.

This Proposal in its entirety is valid for sixty (60) calendar days from the date of this Bid. Adjustments to the price, basis and/or extensions of the date through which the Bid is still valid, may occur only through mutual written consent of the Subcontractor and McCownGordon Construction

By submitting this bid, Subcontractor acknowledges receipt of the construction schedule and the bid reflects the durations included in the schedule.

The bidder hereby acknowledges receipt, review and incorporation of the following as part of this proposal:

Addendum	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
Schedule and Logistic Plans	<input type="radio"/> Yes	<input type="radio"/> No				
Bid Package(s)	<input type="radio"/> Yes	<input type="radio"/> No				
MGC Contract Docs.	<input type="radio"/> Yes	<input type="radio"/> No				
Performance & Payment Bond Included	<input type="radio"/> Yes	<input type="radio"/> No				
Prequalification Process Completed	<input type="radio"/> Yes	<input type="radio"/> No				
Sales Tax Included	<input type="radio"/> Yes	<input type="radio"/> No				

1.8 The undersigned hereby declares that he/she has examined the Construction Documents, Supporting Documents, Owner Contract, has visited the Site, and agrees to all terms and conditions set forth in this Bid Package and all of the Contract Documents.

Company Name

Printed Name

Signature

1-07-1039 – PLATTE COUNTY MIDDLE SCHOOL SITE DEVELOPMENT PACKAGE – KANSAS CITY, MO

BID PACKAGE 00 41 00 – BID FORM

Date

Phone

Email

SECTION 003132 - GEOTECHNICAL DATA

PART 1 - GENERAL

1.1 SUMMARY

- A. The Geotechnical Engineering Report for Platte County Middle School (the Project), including the boring logs, have been prepared for the Owner by Olsson and bound into the Project Manual and are for background information only and shall not be considered as part of the Contract Documents.
 - 1. Any questions regarding this report should be directed to the Architect.
- B. The Contractor shall account for the existing site conditions in its Bid in consideration of all earthwork, grading, and construction required for the Project as indicated in the Contract Documents.
 - 1. Boring locations and boring logs are included in the reports. The boring logs are for information purposes only and are not intended as representations or warranties of accuracy and continuity between soil borings. The boring logs are not a part of the Contract Documents and are not a warrant of subsurface conditions. The Owner does not warrant the accuracy of the boring logs. Therefore, the Bidders are to make their own investigation of the site.

1.2 PROJECT CONDITIONS

- A. Bidders shall examine the site and the record of investigations and determine for themselves the existing conditions and the character of the subsurface conditions to be encountered. The owner and Architect do not assume responsibility for subsurface conditions other than at the locations and at the time the borings were made.
- B. Claims for additional costs due to subsurface conditions encountered will not be permitted unless specifically noted otherwise in the Contract Documents.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 003132

SECTION 006113 - PERFORMANCE AND PAYMENT BOND

PART 1 - GENERAL

1.1 PERFORMANCE BOND AND PAYMENT BOND

- A. The forms for the bonds shall be American Institute of Architects (AIA) Document A312 - 2010, "Performance Bond and Payment Bond". A copy of each of the bonds is bound hereinafter for information only and may not be duplicated.
- B. Additional copies of the performance bond and payment bond may be obtained, at cost, from the Local Chapter, of the American Institute of Architects, at the address listed below:
1. AIA Springfield
 - a. Address: 1717 E. Republic Rd, Ste. A, Springfield, Missouri 65804.
 - b. Telephone: (417) 886-8606.
 - c. Website: www.iaspringfield.org
 2. AIA Kansas City
 - a. Address: 1801 McGee, Suite 100, Kansas City, Missouri 64108
 - b. Telephone: (816) 221-3485.
 - c. Website: www.aiakc.org
 3. AIA Mid Missouri
 - a. Address: P. O. Box 1622, Columbia, Missouri 65205
 - b. Website: www.aiamid-missouri.com
 4. AIA St. Louis
 - a. Address: 911 Washington Street, #100, Louis, Missouri 63101
 - b. Telephone: (314) 621-3484
 - c. Website: www.aia-stlouis.org
 5. AIA Missouri
 - a. Address: 204 East High Street, Jefferson City, Missouri 65101
 - b. Telephone: (573) 635-8555
 - c. Website: www.aiamo.org
 6. AIA Kansas
 - a. Address: 700 SW Jackson, Suite 209, Topeka, KS 66603
 - b. Telephone: (785) 357-5308
 - c. Website: www.aiaks.org
 7. AIA Eastern Oklahoma
 - a. Address: 2210 South Main Street, Tulsa, Oklahoma 74114
 - b. Telephone: (918) 583-0013
 - c. Website: www.aiaeok.org
 8. AIA Colorado
 - a. Address: 303 East 17th Avenue, Suite 110, Denver, Colorado 80203
 - b. Telephone: (303) 446-2266
 - c. Website: www.aiacolorado.org
- C. Additional copies of the performance bond and payment bond may also be obtained, at cost, from the website of the American Institute of Architects, at the internet address listed below:
1. Website: <http://www.aia.org/contractdocs/index.htm>

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 006113

SECTION 006273 - APPLICATION AND CERTIFICATION FOR PAYMENT

PART 1 - GENERAL

1.1 APPLICATION AND CERTIFICATION FOR PAYMENT

- A. The Form of the Application and Certificate for Payment shall be AIA Document G702 – 1992 “Application and Certification for Payment” and G703 – 1992 “Continuation Sheet. A copy of each form is bound hereinafter for information only and may not be duplicated.
- B. Additional copies of AIA Document G702 and AIA Document G703 may be obtained, at cost, from the Local Chapter, of the American Institute of Architects, at the address listed below:
1. AIA Springfield
 - a. Address: 1717 E. Republic Rd, Ste. A, Springfield, Missouri 65804.
 - b. Telephone: (417) 886-8606.
 - c. Website: www.iaspringfield.org
 2. AIA Kansas City
 - a. Address: 1801 McGee, Suite 100, Kansas City, Missouri 64108
 - b. Telephone: (816) 221-3485.
 - c. Website: www.aiakc.org
 3. AIA Mid Missouri
 - a. Address: P. O. Box 1622, Columbia, Missouri 65205
 - b. Website: www.aiamid-missouri.com
 4. AIA St. Louis
 - a. Address: 911 Washington Street, #100, Louis, Missouri 63101
 - b. Telephone: (314) 621-3484
 - c. Website: www.aia-stlouis.org
 5. AIA Missouri
 - a. Address: 204 East High Street, Jefferson City, Missouri 65101
 - b. Telephone: (573) 635-8555
 - c. Website: www.aiamo.org
 6. AIA Kansas
 - a. Address: 700 SW Jackson, Suite 209, Topeka, KS 66603
 - b. Telephone: (785) 357-5308
 - c. Website: www.aiaks.org
- C. Additional copies of AIA Document G702 and AIA Document G703 may also be obtained, at cost, from the website of the American Institute of Architects, at the internet address listed below:
1. Website: <http://www.aia.org/contractdocs/index.htm>

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 006273

SECTION 006275 - PARTIAL LIEN WAIVERS

PART 1 - GENERAL

1.1 PARTIAL LIEN WAIVER

- A. Reference that certain Agreement between _____, as Contractor, and Platte County School District of Platte City, MO in Platte County as Owner, dated on the Project know as: 20021 - Platte County Middle School, Project No. 20021 , for work to be performed by said Contractor.
- B. Reference also that certain Invoice (s) No(s). _____ of Contractor to said Owner in the amount of \$ _____ for work, labor, and materials installed in or furnished for said Project as of _____, 20_____.
- C. Upon receipt of the Owner's remittance for the amount of said invoice(s) and contingent upon the final clearance and payment of said remittance, Contractor agrees to and does hereby waive and release said property, Project and Owner from any and all liens, statutory or otherwise, for any and all work, labor and materials furnished by or through _____ Contractor on said Project to and including the work, labor, and materials covered by said above numbered invoice(s) except for unpaid retainage.
- D. The remittance of the Owner's identified as payment of said above numbered invoice(s) as endorsed by Contractor marked "paid" or otherwise canceled by the bank against which said remittance was drawn shall constitute conclusive proof that said Invoice(s) were paid and that payment thereof was received by Contractor and this lien waiver shall become effective automatically and without requirement of any further act, acknowledgement or receipt on the part of the Contractor named herein.

DATED THIS _____ DAY OF _____, 20_____.

BY

TITLE

NOTARY SEAL (BELOW)

NOTARY PUBLIC

SUBSCRIBED AND SWORN TO BEFORE ME WITHIN AND FOR

STATE OF _____

COUNTY OF _____

ON THIS _____ DAY OF _____, 20_____

MY COMMISSION EXPIRES: _____

END OF SECTION 006275

SECTION 006276 - BAILMENT RECEIPT

PART 1 - GENERAL

1.1 BAILMENT RECEIPT

- A. Receipt No. _____
- B. Bailor Name: Platte County School District
- C. Bailor Address: 998 Platte Falls Rd , Platte City , MO 64079
- D. Bailee (Contractor/Supplier): _____
- E. Bailee Address: _____
- F. Project: _____
- G. Location of Storage: _____
- H. The goods and materials described below are held and stored pursuant to the Contract by and between Bailee, as Contractor/Supplier, and Platte County School District of Platte City , MO in Platte County as Owner, for Work to be performed at the above referenced Project Location. Said goods and materials are to be transferred or delivered to the Project site in conjunction with the performance of Bailee's Contract referenced above or upon the direction of Bailor or its General Contractor and no other. The Bailee acknowledges that it has not ownership rights or title in, nor shall claim any lien upon, said goods and materials.

QUANTITY	DESCRIPTION OF ITEM

RECEIPTED AND ACKNOWLEDGED BY:

CONTRACTOR / SUPPLIER (BAILEE)

ON THIS _____ DAY OF _____, 20_____

END OF SECTION 006276

SECTION 006277 - BILL OF SALE

PART 1 - GENERAL

1.1 BILL OF SALE

A. Seller:

- 1. _____, Subcontractor or Supplier
- 2. _____, Address
- 3. _____, City, State Zip

B. In consideration of payments made pursuant to its Contract with Platte County School District of Platte City , MO in Platte County as Owner, Buyer, dated _____, 20__ for the Project known as 20021 - Platte County Middle School, receipt of which is hereby acknowledged, Seller does hereby grant, sell, transfer, and deliver to Buyer right, title, and interest in the following goods:

C. _____

D. Buyer shall have all rights and title to the goods in himself and his executors, administrators and assigns. Seller is the lawful owner of the goods and the goods are free from all encumbrances. Seller has good right to sell the goods and will warrant and defend the right against the lawful claims and demands of all persons. It is expressly understood and agreed that the acceptance of the goods described herein is not a waiver of any right of action that the Buyer may have for breach of warranty of any other cause under the Contract referenced above or at law.

E. In Witness Whereof, Seller has executed this Agreement the _____ day of _____, 20_____.

F. Seller: _____ (subcontractor, supplier)

G. By: _____

H. Title: _____

PART 2 - ASSIGNMENT OF BILL OF SALE

2.1 ASSIGNMENT OF BILL OF SALE

A. _____, in consideration of payments made by _____, Owner, pursuant to its Contract dated

_____, 20____ for the project known as 20021 - Platte County Middle School does hereby assign this Bill of Sale to Owner.

B. By: _____

C. Title: _____

D. Date: _____

E. END OF DOCUMENT 006277

SECTION 008400 - ATTACHMENTS

PART 1 - GENERAL

1.1 APPLICABLE AFFIDAVITS AND FORMS

- A. The electronic verification of work authorization, "E-Verify" form is bound hereinafter for Contractor's duplications and use.
- B. The OSHA "Affidavit of 10 Hour OSHA Training" is bound hereinafter for Contractor's duplication and use.
- C. "Contractor's Affidavit Concerning Drug/Alcohol Testing Program" form is bound hereinafter for Contractor's duplication and use.
- D. The "Missouri Service-Disabled Veteran Business Preference" form is bound hereinafter for Contractor's duplication and use.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 008400

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Work by Owner.
 - 4. Work under separate contracts.
 - 5. Future work.
 - 6. Access to site.
 - 7. Coordination with occupants.
 - 8. Work restrictions.
 - 9. Specification and drawing conventions.
 - 10. Miscellaneous provisions.

1.2 PROJECT INFORMATION

- A. Project Identification: 20021 - Platte County Middle School
 - 1. Project Addresses:
 - a. N Platte Purchase Drive & NW 95th.
 - b. Kansas City, MO 64154
- B. Owner: Platte County School District
 - 1. Refer to Document 000105 "Project Team Directory."
- C. Architect:
 - 1. Refer to Document 000105 "Project Team Directory."
- D. Architect's Consultants: The Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:
 - 1. Refer to Document 000105 "Project Team Directory."
- E. Construction Manager:
 - 1. Refer to Document 000105 "Project Team Directory."
 - 2. Construction Manager for this Project is Project's constructor. The terms "Construction Manager" and "Contractor" are synonymous.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. General: All demolition, sitework, architectural, structural, fire suppression, plumbing, mechanical, electrical, access control, technology and utilities as indicated in the Contract Documents and as further defined in the

Scopes of Work.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.4 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.
- B. Subsequent Work: Owner will perform the following additional work at site after Substantial Completion. Completion of that work will depend on successful completion of preparatory work under this Contract.

1.5 WORK UNDER SEPARATE CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

1.6 FUTURE WORK

- A. The Contract Documents include requirements that will allow the Owner to carry out future work following completion of this portion of the Project.

1.7 ACCESS TO SITE

- A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
- B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
1. Limits: Confine construction operations to areas indicated and as directed by Construction Manager.
 2. Driveways, Walkways, and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Restrictions: Note that no deliveries to the Project Site will be allowed between the hours of 7:00 am to 8:30 am and 2:00 pm to 3:30 pm.
 - b. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - c. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.8 COORDINATION WITH OCCUPANTS

- A. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

1.9 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise indicated.
 1. Weekend Hours: Coordinate and schedule all weekend hours with the Owner not less than 48 hours in advance. Comply with regulations of authorities having jurisdiction.
 2. Early Morning Hours: Notify Owner of days when early morning hours will be required and comply with regulations of authorities having jurisdiction.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 1. Notify Architect and Owner not less than three (3) days in advance of proposed utility interruptions.
 2. Obtain Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 1. Notify Architect and Owner not less than three (3) days in advance of proposed disruptive operations.
 2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Nonsmoking Buildings and Sites: Smoking is not permitted on School District property.
- F. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.
- G. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.
- H. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
 1. Maintain list of approved screened personnel with Owner's representative.
 2. As a condition for the award of any service contract in excess of \$5,000.00 by the Owner, the service provider must be enrolled in and currently participating in "E-Verify" or any other equivalent electronic verification of work authorization program operated by the U.S. Department of Homeland Security.

3. As a further condition for the award of any service contract in excess of \$5,000.00 the service provider shall not knowingly employ any person who is an un-authorized alien in conjunction with the contracted services.
 - a. E-Verify forms are available for duplication and contractor's use in Section 008400 – Attachments.

1.10 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 011000

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

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

1.2 DEFINITIONS

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

1.3 PROCEDURES

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

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A. ADD Alternate No. 1: East/West Road Expansion.
 - 1. Add Alternate: Alternate includes all labor, materials, equipment and appurtenances necessary to include east/west road to line creek parkway including curb, pavement, storm sewer, sidewalk and lighting for the driveway as shown on drawings.
 - 2. Base Bid: No east/west road work.
- B. DEDUCT Alternate No. 2: Parking and Curb Reduction.

1. Deduct Alternate: Alternate includes all labor, materials, equipment and appurtenances necessary to remove parking curb and pavement for 64 stalls shown on plan in the south parking lot. Sod along the curb as shown and seed rest of area in lieu of pavement.

2. Base Bid: All parking included as indicated on drawings.

C. DEDUCT Alternate No. 3: Speed Table Removal.

1. Deduct Alternate: Alternate includes all labor, materials, equipment and appurtenances necessary to replace two concrete speed tables with asphalt driveway and pavement markings for crossings at depressed ramps.

2. Base Bid: Speed tables included as indicated on drawings.

END OF SECTION 012300

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for "Substitutions for Convenience" and "Substitutions for Cause".
- B. Related Requirements:
 - 1. Section 012100 "Allowances" for products selected under an allowance.
 - 2. Section 012200 "Unit Prices" for products selected under a unit price.
 - 3. Section 012300 "Alternates" for products selected under an alternate.
 - 4. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
 - 5. Division 02 through 33 Sections for specific requirements and limitations for substitutions.

1.2 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms. Substitutions for Cause shall be submitted after award of the contract as set forth hereinafter.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner. Substitutions for Convenience shall be submitted prior to bidding as set forth hereinafter.
- B. Comparable Products: Naming of specified items on the Drawings and in the specifications, means that such named items are specifically required by the Architect and/or Owner. When the words "or comparable product" follows such named item(s), a substitution request must be submitted when proposing a product other than the named product. Requests for substitutions must be received by the Architect within the time frame set hereinafter.
- C. The following are not considered substitutions:
 - 1. Revisions to Contract Documents requested by the Owner or Architect.
 - 2. Specified options of products, materials and construction methods included in the Contract Documents.

1.3 ACTION SUBMITTALS

- A. Substitution Requests: Submit at least one (1) paper copy or an electronic pdf copy of each request for consideration to the Architect. Clearly Identify proposed product and related options or fabrication or installation method to be replaced. Include Specification Section number and title, in addition to applicable Drawing numbers

and titles.

1. Substitution Request Form: Use facsimile of form provided at the end of this Section.
 - a. Accompanying each Substitution Request shall be a fully executed copy of the Substitution Request Form.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Specifically indicate deviations, if any, from the Work specified in writing.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested, of proposed substitution and of specified product shall be submitted for comparison and review by Architect.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names, addresses and contact information of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Review Process: Submittal requests for proposed substitutions will be processed using the following procedures:
 - a. Submittals will be "Received Dated" immediately upon arrival.
 - b. Submittals will be placed by receiving person in a file designated for that purpose.
 - c. Submittals will not be reviewed for completeness or compliance until after the date and time established for closing of receipt of substitution request submittals.
 - d. Submittals will be reviewed by a member of Hollis + Miller Architect's staff (or respective consultant). Reviewer(s) will not be designated until after closing period established for receipt of submittals.
 - e. Reviewer's General Attitude will be:
 - 1) Burden of Proof is on Proposer.
 - 2) Reviewer should not be required to complete the submittal, that is, select from options or between models and lines of products.
 - 3) Reviewer should not be required to conduct an exhaustive review of the submittal. Submittals of manufacturer's catalogs which do not clearly indicate proposed product and proposed product options will be rejected.
 - 4) Reviewer should not be required to seek information from manufacturer's literature on file in the office, from an improperly submitted electronic submittal or information in other locations.
 - 5) Substitute must be "comparable to" or superior in those features and performance which the Project requires and those which the specified product will provide.
 - 6) Review is complete when, in the reviewer's opinion, significant deficiency(ies) are established. In such case, review of data covering other points of specifications is not required.
 - f. Reviewer will note action taken (No Exception taken to Submitted Manufacturer, No Exception taken to Specific Product, Exceptions Noted, Not Accepted or Received Late), the date, and his/her initials.
 - g. All submittals received after closing time will be "Received Dated", marked "Late", initialed by reviewer, and filed without review.

- h. Submittals will be filed in Architect's office until completion of the Project.
- 4. Architect's Action:
 - a. Architect will review requests for "Substitutions for Convenience" only once, no additional information may be submitted. Architect may request additional information as necessary for review of "Substitutions for Cause."
 - b. Architect will note action taken.
 - c. Architect is not obligated nor required to review any and all substitution requests.
 - d. Architect is not obligated to inform proposers of substitutions of incomplete and non-accepted requests for substitution.
 - e. Acceptance of Substitutions:
 - 1) Acceptance of Substitutions for Convenience: Accepted substitutions will be set forth in an Addendum and in no other manner.
 - (a) Use product specified if Architect does not issue a decision on use of a proposed substitution.
 - 2) Acceptance of Substitutions for Cause: Architect will review proposed substitution within 15 business days of receipt of request. If necessary, Architect, through Construction Manager, will request additional information or documentation for evaluation within seven (7) business days of receipt of a request for Substitution for Cause." Architect will notify Contractor through Construction Manager of acceptance of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.

Only acceptable substitutions will receive notification of status. Substitutions shall be considered unacceptable unless a form of acceptance is received by the Proposer.

 - (a) Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - (b) Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.4 ELECTRONIC SUBMITTAL OF SUBSTITUTIONS

- A. Substitution Request submittals will be accepted for review when submitted electronically under the following conditions. Substitution requests which are not submitted in accordance with the criteria listed below may be rejected at the Architect's discretion.
 - 1. Accompanying each submittal shall be a fully executed copy of the Substitution Request Form.
 - 2. Submittals shall be sent to Hollis + Miller Architects, to the attention of the contact listed in Document 000101 "Project Team Directory. Submittals directed to the attention of anyone other than the contact listed will not be considered.
 - 3. Submittals of Substitutions for Cause must be received within the time limits set forth in Paragraph 2.1 A of this Section.
 - 4. Submittals of Substitutions for Convenience must be received prior to bidding and within the time limits set forth in Paragraph 2.1 B of this Section.
 - 5. Documentation requirements as set forth in 1.3 A.2a through 1.3 A.2m are applicable to electronic submittals.
 - a. Note: Electronic submittals in which the manufacturer's entire catalog is submitted will be rejected.

1.5 QUALITY ASSURANCE

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

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions at no additional cost to the Owner.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than thirty (30) days prior to time required for preparation and review of related submittals.
 - 1. Conditions: Architect and Owner will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Request is directly related to a "or comparable product" clause or similar language in the Contract Documents.
 - c. Specified product or method of construction cannot be provided within the Contract Time.
 - d. Specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.
 - e. Specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution will provide the specified warranty.
 - f. Substitution request is fully documented and properly submitted.
 - g. Requested substitution will not adversely affect Contractor's construction schedule.
 - h. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - i. Requested substitution is compatible with other portions of the Work.
 - j. Requested substitution has been coordinated with other portions of the Work.
 - k. Requested substitution provides specified warranty.
 - l. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Architect will consider requests for substitution only when submitted prior to bidding, and no later than 4:00 p.m. (local time) eight (8) calendar days prior to the date established for receipt of bids. Requests received after that time may be considered or rejected at discretion of Architect.
 - 1. 1.Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented and properly submitted.
 - e. Requested substitution will not adversely affect Contractor's construction schedule.
 - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - g. Requested substitution is compatible with other portions of the Work.
 - h. Requested substitution has been coordinated with other portions of the Work.
 - i. Requested substitution provides specified warranty.
 - j. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other

- products, and is acceptable to all contractors involved.
- C. The Contractor's submittal and A/E's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents does not constitute an acceptance or validate request for substitution, nor does it constitute approval.
 - D. Under no circumstances does the Architect's and/or Owner's acceptance of any such substitution relieve the Contractor from timely, full and proper performance of the Work.

PART 3 - EXECUTION (NOT USED)

END OF SECTION 012500

SECTION 012500.01 - SUBSTITUTION PROCEDURES FORM

MAIL TO: HOLLIS + MILLER ARCHITECTS **PROJECT:** 20021 - PLATTE COUNTY MIDDLE SCHOOL
1828 WALNUT STREET, SUITE 922 N PLATTE PURCHASE DRIVE & NW 95TH.
KANSAS CITY, MISSOURI 64108 KANSAS CITY, MISSOURI 64154

SPECIFIED ITEM: _____

PROPOSED SUBSTITUTE: _____

SUBMITTED BY: _____

FIRM: _____

ADDRESS: _____

SIGNATURE: _____ **DATE:** _____

PHONE NUMBER: _____

ATTACH COMPLETE DESCRIPTION, DESIGNATION, CATALOG OR MODEL NUMBER, SPEC DATA SHEET AND OTHER TECHNICAL DATA AND SAMPLES, INCLUDING LABORATORY TESTS IF APPLICABLE.

FILL IN BLANKS BELOW:

1. WILL SUBSTITUTION AFFECT DIMENSION INDICATED ON DRAWINGS?

2. WILL SUBSTITUTION AFFECT WIRING, PIPING, DUCTWORK, ETC., INDICATED ON DRAWINGS?

3. WHAT EFFECT WILL SUBSTITUTION HAVE ON OTHER TRADES?

4. DIFFERENCES BETWEEN PROPOSED SUBSTITUTION AND SPECIFIED ITEM?

5. ANY AND ALL IMPACTS ON COSTS, DESIGN MODIFICATIONS, ADDITIONAL ARCHITECTURAL AND ENGINEERING SERVICES, MATERIAL AND LABOR CHANGES, SCHEDULE CHANGES, AND OTHER UNANTICIPATED CONSEQUENCES, RESULTING FROM THIS SUBSTITUTION IN LIEU OF THE SPECIFIED ITEM, SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR AND HIS SUBCONTRACTORS AND SUPPLIER.

6. MANUFACTURER'S WARRANTIES OF THE SPECIFIED ITEMS AND PROPOSED ITEMS ARE: SAME OR DIFFERENT, *EXPLAIN:* _____

REVIEW COMMENTS:

NO EXCEPTION TAKEN TO SUBMITTED MANUFACTURER

MANUFACTURER ONLY IS ACCEPTED DUE TO TIME LIMITATIONS FOR FULL REVIEW OF PRODUCT, OR BECAUSE NO SPECIFIC PRODUCT DATA IS SUBMITTED, OR OTHER UNSPECIFIED REASONS. CONTRACTOR MUST STILL BEAR FULL RESPONSIBILITY FOR COMPLIANCE WITH CONTRACT REQUIREMENTS.

NO EXCEPTION TAKEN TO SPECIFIC PRODUCTS

EXCEPTIONS NOTED

SEE ATTACHED COPY OR NOTES ON PRODUCT LITERATURE

NOT ACCEPTED

RECEIVED TOO LATE

BY: _____ DATE: _____

REMARKS: _____

END OF SECTION 012500.01

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

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

1.2 MINOR CHANGES IN THE WORK

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

1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Construction Manager will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Construction Manager are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or 20 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Quotation Form: Use form furnished by Construction Manager.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Construction Manager for initial review and subsequent transmittal to Architect.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
7. Proposal Request Form: Use form furnished by Construction Manager.

1.4 ADMINISTRATIVE CHANGE ORDERS

- A. Allowance Adjustment: See Section 012100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.
- B. Unit-Price Adjustment: See Section 012200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit-price work.

1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Changes Proposal Request, Construction Manager will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.
 1. Change Orders are to be dated and numbered sequentially.
- B. Change Orders will describe the change or changes, will refer to the related Proposal Request number and date; and will be signed by the Owner, Architect and Construction Manager.

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect or Construction Manager may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
 - 1. Section 012100 "Allowances" for procedural requirements necessary to prepare and process Applications for Payment.
 - 2. Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.
 - 3. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 4. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

1.2 DEFINITIONS

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

1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
 - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to Architect through Construction Manager at earliest possible date, but no later than seven (7) days before the date scheduled for submittal of initial Applications for Payment.
 - 3. Sub-schedules for Phased Work: Where the Work is separated into phases requiring separately phased payments, provide sub-schedules showing values coordinated with each phase of payment.
 - 4. Sub-schedules for Separate Elements of Work: Where the Contractor's construction schedule defines separate elements of the Work, provide sub-schedules showing values coordinated with each element.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.

- d. Contractor's name and address.
 - e. Date of submittal.
2. Arrange schedule of values consistent with format of AIA Document G703.
 3. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - 1) Labor.
 - 2) Materials.
 - 3) Equipment.
 4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five (5) percent of the Contract Sum.
 - a. Include separate line items under Contractor and principal subcontracts Project closeout requirements in an amount totaling five (5) percent of the Contract Sum and subcontract amount.
 5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 6. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
 7. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 8. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
 9. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
 10. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and Construction Manager and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.

- B. Payment Application Times: Submit Application for Payment to Construction Manager by the twenty-fifth (25 th) day of the month. Construction Manager will review payment application prior to forwarding to Architect. The period covered by each Application for Payment is one month.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment. Sample copies are included in Project Manual.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Construction Manager will return incomplete applications without action.
1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- F. Transmittal: Submit three (3) signed and notarized original copies of each Application for Payment to Construction Manager by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's liens from each Contractor, subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit conditional final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 5. Waiver Forms: Submit executed waivers of lien on forms, included in the Project Manual.
- H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of values.
 3. Contractor's construction schedule (preliminary if not final).
 4. Products list (preliminary if not final).
 5. Schedule of unit prices.
 6. Submittal schedule (preliminary if not final).
 7. List of Contractor's staff assignments.
 8. List of Contractor's principal consultants.
 9. Copies of building permits.
 10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 11. Initial progress report.
 12. Report of pre-construction conference.
- I. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.

2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707, "Consent of Surety to Final Payment."
7. Evidence that all claims have been settled.
8. Final liquidated damages settlement statement, if applicable.
9. Copy of the Affidavit of Compliance with Prevailing Wage Determination sent to the State.
10. Asbestos-Free and Lead-Free Certification Letter in form acceptable to Owner.
11. Evidence that claims have been settled.
12. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
13. Other close-out documentation required by the Contract Documents.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. Requests for Information (RFIs).
 - 4. On-line Project file.
 - 5. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.
- C. Related Requirements:
 - 1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
 - 2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 3. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.2 DEFINITIONS

- A. RFI: Request from Owner, Construction Manager, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.3 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use form acceptable to Construction Manager. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within ten (10) days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project. Keep list current at all times.

1. Post paper copies of list in project meeting room, in temporary field office, and by each temporary telephone.

1.4 GENERAL COORDINATION PROCEDURES

- A. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations, included in different Sections that depend on each other for proper installation, connection, and operation.
 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 2. Coordinate installation of different components with other contractors to ensure maximum performance and accessibility for required maintenance, service, and repair.
 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 1. Preparation of Contractor's construction schedule.
 2. Preparation of the schedule of values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Preinstallation conferences.
 7. Project closeout activities.
 8. Startup and adjustment of systems.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 1. Refer to Section 017419 "Construction Waste Management and Disposal" for additional requirements.

1.5 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials

fabricated or installed by more than one entity.

1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
 - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
 - b. Coordinate the addition of trade-specific information to the coordination drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
 - c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
 - e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
 - f. Indicate required installation sequences.
 - g. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
 1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
 2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
 3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
 4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
 5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
 6. Mechanical and Plumbing Work: Show the following:
 - a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
 - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
 - c. Fire-rated enclosures around ductwork.
 7. Electrical Work: Show the following:
 - a. Runs of vertical and horizontal conduit 1-1/4 inches in diameter and larger.
 - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
 - c. Panel board, switch board, switchgear, transformer, busway, generator, and motor control center locations.
 - d. Location of pull boxes and junction boxes, dimensioned from column center lines.

8. Fire-Protection System: Show the following:
 - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
 9. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make changes as directed and resubmit.
 10. Coordination Drawing Prints: As deemed necessary by Construction Manager, prepare coordination drawing prints according to requirements in Section 013300 "Submittal Procedures."
- C. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:
1. File Preparation Format: Same digital data software program, version, and operating system as original Drawings.
 2. File Submittal Format: Submit or post coordination drawing files using Portable Data File (PDF) format.
 3. BIM File Incorporation: Develop and incorporate coordination drawing files into Building Information Model established for Project.
 - a. Refer to individual Scopes of Work for Trades required to perform three-dimensional component conflict analysis as part of preparation of coordination drawings. Resolve component conflicts prior to submittal. Indicate where conflict resolution requires modification of design requirements by Architect.
 4. Architect, through Construction Manager, will furnish Contractor one set of digital data files of Drawings for use in preparing coordination digital data files.
 - a. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to Drawings.
 - b. Digital Drawing Software Program: The Contract Drawings are available in Revit version 2016 using Windows 10 operating system.
 - c. Contractor shall execute a data licensing agreement in the form of Agreement included in Project Manual.

1.6 REQUESTS FOR INFORMATION (RFIS)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Architect.

6. Name of Construction Manager.
 7. RFI number, numbered sequentially.
 8. RFI subject.
 9. Specification Section number and title and related paragraphs, as appropriate.
 10. Drawing number and detail references, as appropriate.
 11. Field dimensions and conditions, as appropriate.
 12. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 13. Contractor's signature.
 14. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: AIA Document G716 or a software-generated form with substantially the same content as indicated above, acceptable to Architect.
1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect's and Construction Manager's Action: Architect and Construction Manager will review each RFI, determine action required, and respond. Allow seven (7) working days for Architect's response for each RFI. RFIs received by Architect or Construction Manager after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect and Construction Manager in writing within 10 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly in form acceptable to Architect. Include the following:
1. Project name.

2. Name and address of Contractor.
 3. Name and address of Architect.
 4. Name and address of Construction Manager.
 5. RFI number including RFIs that were returned without action or withdrawn.
 6. RFI description.
 7. Date the RFI was submitted to the Architect.
 8. Date Architect's and Construction Manager's response was received.
- F. On receipt of Architect's and Construction Manager's action, immediately distribute the RFI response to affected parties. Review response and notify Architect and Construction Manager within seven (7) days if Contractor disagrees with response.
1. Change in Work shall be recorded to the Project Record set per Section 017839 "Project Record Documents".

1.7 PROJECT MEETINGS

- A. General: Construction Manager will schedule and conduct meetings and conferences at Project site unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner, Construction Manager, and Architect, within three (3) days of the meeting.
- B. Preconstruction Conference: Construction Manager will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
1. Conduct the conference to review responsibilities and personnel assignments.
 2. Attendees: Authorized representatives of Owner, Owner's Commissioning Authority, Construction Manager, Architect, and their consultants; each Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Lines of communications.
 - f. Procedures for processing field decisions and Change Orders.

- g. Procedures for RFIs.
 - h. Procedures for testing and inspecting.
 - i. Procedures for processing Applications for Payment.
 - j. Distribution of the Contract Documents.
 - k. Submittal procedures.
 - l. Preparation of record documents.
 - m. Use of the premises.
 - n. Work restrictions.
 - o. Working hours.
 - p. Owner's occupancy requirements.
 - q. Responsibility for temporary facilities and controls.
 - r. Procedures for moisture and mold control.
 - s. Procedures for disruptions and shutdowns.
 - t. Construction waste management and recycling.
 - u. Parking availability.
 - v. Office, work, and storage areas.
 - w. Equipment deliveries and priorities.
 - x. First aid.
 - y. Security.
 - z. Progress cleaning.
4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
- 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect, Construction Manager, and Owner's Commissioning Authority of scheduled meeting dates.
 - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written instructions.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.

3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Closeout Conference: Construction Manager will schedule and conduct a project closeout conference, at a time convenient to Owner and Architect, but no later than 60 days prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of Owner, Owner's Commissioning Authority, Construction Manager, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of record documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for preparing operations and maintenance data.
 - e. Requirements for delivery of material samples, attic stock, and spare parts.
 - f. Requirements for demonstration and training.
 - g. Preparation of Contractor's punch list.
 - h. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - i. Submittal procedures.
 - j. Owner's partial occupancy requirements.
 - k. Installation of Owner's furniture, fixtures, and equipment.
 - l. Responsibility for removing temporary facilities and controls.
 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: Construction Manager will conduct progress meetings at biweekly intervals.
1. Coordinate dates of meetings with preparation of payment requests.
 2. Attendees: In addition to representatives of Owner, Owner's Commissioning Authority, Construction Manager, and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

- a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Resolution of BIM component conflicts.
 - 4) Status of submittals.
 - 5) Status of sustainable design documentation.
 - 6) Deliveries.
 - 7) Off-site fabrication.
 - 8) Access.
 - 9) Site utilization.
 - 10) Temporary facilities and controls.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Status of correction of deficient items.
 - 14) Field observations.
 - 15) Status of RFIs.
 - 16) Status of proposal requests.
 - 17) Pending changes.
 - 18) Status of Change Orders.
 - 19) Pending claims and disputes.
 - 20) Documentation of information for payment requests.
4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
- a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- F. Coordination Meetings: Construction Manager will conduct Project coordination meetings at regular intervals.

Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.

- 1. Attendees: In addition to representatives of Owner, Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work. Owner's Commissioning Authority, Construction Manager, and Architect will attend as deemed necessary.
- 2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
 - c. Review present and future needs of each contractor present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.

- 3) Resolution of BIM component conflicts.
 - 4) Status of submittals.
 - 5) Deliveries.
 - 6) Off-site fabrication.
 - 7) Access.
 - 8) Site utilization.
 - 9) Temporary facilities and controls.
 - 10) Work hours.
 - 11) Hazards and risks.
 - 12) Progress cleaning.
 - 13) Quality and work standards.
 - 14) Change Orders.
3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Startup construction schedule.
 - 2. Contractor's construction schedule.
 - 3. Construction schedule updating reports.
 - 4. Daily construction reports.
 - 5. Material location reports.
 - 6. Site condition reports.
 - 7. Special reports.
- B. Related Requirements:
 - 1. Section 013300 "Submittal Procedures" for submitting schedules and reports.
 - 2. Section 014500 "Quality Requirements" for submitting a schedule of tests and inspections.

1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
 - 1. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 2. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

- F. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.3 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:

- 1. Working electronic copy of schedule file, where indicated.
- 2. PDF electronic file through Procore as follows:
 - a. Use software that is part of on-line collaborative Project file through Procore as follows:
 - 1) <https://www.procoretech.com/account/login>.
 - (a) Username and password will be required and established upon award.

- B. Startup construction schedule.

- 1. Approval of cost-loaded, startup construction schedule will not constitute approval of schedule of values for cost-loaded activities.

- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.

- 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.

- D. Construction Schedule Updating Reports: Submit with Applications for Payment.

- E. Daily Construction Reports: Submit at monthly intervals.

- F. Material Location Reports: Submit at monthly intervals.

- G. Site Condition Reports: Submit at time of discovery of differing conditions.

- H. Special Reports: Submit at time of unusual event.

- 1. Adverse Weather Days: Document conditions effecting construction activities and submit within 24 hours of the event.

1.4 QUALITY ASSURANCE

- A. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to the preliminary construction schedule and Contractor's construction schedule, including, but not limited to, the following:

- 1. Review software limitations and content and format for reports.
- 2. Verify availability of qualified personnel needed to develop and update schedule.
- 3. Discuss constraints, including phasing, work stages, area separations and interim milestones.
- 4. Review delivery dates for Owner-furnished products.
- 5. Review submittal requirements and procedures.
- 6. Review time required for review of submittals and resubmittals.
- 7. Review requirements for tests and inspections by independent testing and inspecting agencies.

8. Review time required for Project closeout and Owner startup procedures, including commissioning activities.
9. Review and finalize list of construction activities to be included in schedule.
10. Review procedures for updating schedule.

1.5 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 1. Secure time commitments for performing critical elements of the Work from entities involved.
 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.
 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 4. Startup and Testing Time: Include no fewer than 20 days for startup and testing.
 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's and Construction Manager's administrative procedures necessary for certification of Substantial Completion.
 6. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.

1. Phasing: Arrange list of activities on schedule by phase.
2. Work under More Than One Contract: Include a separate activity for each contract.
3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner, if any.
4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
5. Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
6. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Uninterruptible services.
 - c. Use of premises restrictions.
 - d. Provisions for future construction.
 - e. Seasonal variations.
 - f. Environmental control.
7. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.
 - b. Submittals.
 - c. Purchases.
 - d. Mockups.
 - e. Fabrication.
 - f. Sample testing.
 - g. Deliveries.
 - h. Installation.
 - i. Tests and inspections.
 - j. Adjusting.
 - k. Curing.
 - l. Building flush-out.
 - m. Startup and placement into final use and operation.
8. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
 - a. Structural completion.
 - b. Temporary enclosure and space conditioning.
 - c. Permanent space enclosure.
 - d. Completion of mechanical installation.
 - e. Completion of electrical installation.
 - f. Substantial Completion.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- E. Cost Correlation: Superimpose a cost correlation timeline, indicating planned and actual costs. On the line, show planned and actual dollar volume of the Work performed as of planned and actual dates used for preparation of payment requests.
 1. See Section 012900 "Payment Procedures" for cost reporting and payment procedures.

- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
 - 1. Unresolved issues.
 - 2. Unanswered Requests for Information.
 - 3. Rejected or unreturned submittals.
 - 4. Notations on returned submittals.
 - 5. Pending modifications affecting the Work and Contract Time.
- G. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

2.2 STARTUP CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit startup, horizontal, bar-chart-type construction schedule within seven (7) days of date established for the Notice to Proceed or Notice of Award, whichever is earlier.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. General: Prepare network diagrams using AON (activity-on-node) format.
- B. Startup Network Diagram: Submit diagram within 14 days of date established for the Notice to Proceed. Outline significant construction activities for the first 90 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's construction schedule using a time-scaled CPM network analysis diagram for the Work.
 - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than 30 days after date established for the Notice to Proceed.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of Architect's approval of the schedule.
 - 2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.

3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
 4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to coordinate with the Contract Time.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
1. Refer to Section 007300 for additional requirements.
- E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall project schedule.
- F. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities.
- G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed.
 2. Changes in early and late start dates.
 3. Changes in early and late finish dates.
 4. Changes in activity durations in workdays.
 5. Changes in the critical path.
 6. Changes in total float or slack time.
 7. Changes in the Contract Time.

2.4 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's construction schedule within 30 days of date established for the Notice to Proceed or the Notice of Award, whichever is earlier. Base schedule on the startup construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.5 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
 2. List of separate contractors at Project site.
 3. Approximate count of personnel at Project site.
 4. Equipment at Project site.
 5. Material deliveries.
 6. High and low temperatures and general weather conditions, including presence of rain or snow.
 7. Accidents.
 8. Meetings and significant decisions.
 9. Unusual events (see special reports).
 10. Stoppages, delays, shortages, and losses.
 11. Meter readings and similar recordings.
 12. Emergency procedures.
 13. Orders and requests of authorities having jurisdiction.
 14. Change Orders received and implemented.
 15. Construction Change Directives received and implemented.
 16. Services connected and disconnected.
 17. Equipment or system tests and startups.
 18. Partial completions and occupancies.
 19. Substantial Completions authorized.
- B. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site. Indicate the following categories for stored materials:
1. Material stored prior to previous report and remaining in storage.
 2. Material stored prior to previous report and since removed from storage and installed.
 3. Material stored following previous report and remaining in storage.
- C. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.6 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner, Architect and Construction Manager within two day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence.

- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate final completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Architect, Construction Manager, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Periodic construction photographs.
 - 3. Final completion construction photographs.
- B. Related Requirements:
 - 1. Section 017700 "Closeout Procedures" for submitting photographic documentation as Project Record Documents at Project closeout.
 - 2. Section 017900 "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

1.2 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within three days of taking photographs.
 - 1. Submit photos by uploading to web-based project software site or via email. Include copy of key plan indicating each photograph's location and direction.
 - 2. Identification: Provide the following information with each image description:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of location, vantage point, and direction.
 - g. Unique sequential identifier keyed to accompanying key plan.

1.3 FORMATS AND MEDIA

- A. Digital Photographs: Provide color images in JPG format, produced by a digital camera with minimum sensor size of 12 megapixels, and at an image resolution of not less than 3200 by 2400 pixels. Use flash in low light levels or backlit conditions.
- B. Digital Images: Submit digital media as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
- C. Metadata: Record accurate date and time from camera.
- D. File Names: Name media files with date, Project area, and sequential numbering suffix.

1.4 CONSTRUCTION PHOTOGRAPHS

- A. General: Take photographs with maximum depth of field and in focus.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- B. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.
 - 1. Flag construction limits before taking construction photographs.
 - 2. Take 20 photographs to show existing conditions adjacent to property before starting the Work.
 - 3. Take 20 photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
 - 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- C. Periodic Construction Photographs: Take 20 photographs biweekly. Select vantage points to show status of construction and progress since last photographs were taken.
- D. Final Completion Construction Photographs: Take 20 photographs after date of Substantial Completion for submission as Project Record Documents. Architect will inform photographer of desired vantage points.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
 - 1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
 - 2. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
 - 3. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 4. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and Record Product Data.
 - 5. Section 017900 "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's and Construction Manager's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's and Construction Manager's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.3 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and Construction Manager and additional time for handling and reviewing submittals required by those

corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.
 - b. Specification Section number and title.
 - c. Submittal category: Action; informational.
 - d. Name of subcontractor.
 - e. Description of the Work covered.
 - f. Scheduled date for Architect's and Construction Manager's final release or approval.
 - g. Scheduled date of fabrication.
 - h. Scheduled dates for installation.
 - i. Scheduled dates for purchasing.
 - j. Activity or event number.

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic digital data files of the Contract Drawings will be provided by Architect, through the Construction Manager to Contractor, at a nominal cost, for use in preparing submittals.
 1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.
 - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. Digital Drawing Software Program: The Contract Drawings are available in Revit version **2020** using Windows 10 operating system.
 - c. Contractor shall execute a data licensing agreement in the form of Agreement included in Project Manual.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect and Construction Manager reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Construction Manager's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. It is expected that all submittals will be submitted within the durations outlined in the bid form as provided by each trade.
 - a. A \$100.00 per calendar day penalty will be assessed for any submittal received after durations received as provided by each trade. The penalty will be deducted from the contract through deductive change order. Only if written authorization from the Construction Manager to extend this time frame can this "per day" penalty not be enforced.
 - b. The completion time of the contract will not be extended for delays caused by tardiness of submittals. Cost of such delays shall not be borne by the Owner and may be back-charged as necessary.
 - 1) Contractor shall assume full responsibility for providing materials as specified at their risk to maintain schedule if submittals are not submitted within durations provided on the bid form.
 - c. Upon receipt of unapproved submittals, Contractors will have seven (7) calendar days to revise and resubmit. After such time, the penalty outlined above in 1.4 C.1.a will be assessed.
 2. Initial Review: Allow 10 ***business*** days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Construction Manager will advise Contractor when a submittal being processed must be delayed for coordination.
 3. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 4. Resubmittal Review: Allow 7 ***business*** days for review of each resubmittal.
 5. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 ***business*** days for initial review of each submittal.
 6. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 15 ***business*** days for review of each submittal. Submittal will be returned to Construction Manager, through Architect, before being returned to Contractor.
- D. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., OMLC-079200.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., OMLC-079200.01.A).
 - b. Specific material/product identifier: After listing the project identifier and section number as described above, clearly indicate the material/product submitted corresponding to specific paragraph in the specification (e.g., Silicone Joint Sealant – 2.2 A).
 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect and Construction Manager.
 4. Transmittal Form for Electronic Submittals: Use software-generated form from electronic project management software or electronic form acceptable to Owner, containing the following information:

- a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Name of firm or entity that prepared submittal.
 - g. Names of subcontractor, manufacturer, and supplier.
 - h. Category and type of submittal.
 - i. Submittal purpose and description.
 - j. Specification Section number and title.
 - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - l. Drawing number and detail references, as appropriate.
 - m. Location(s) where product is to be installed, as appropriate.
 - n. Related physical samples submitted directly.
 - o. Indication of full or partial submittal.
 - p. Transmittal number, numbered consecutively.
 - q. Submittal and transmittal distribution record.
 - r. Other necessary identification.
 - s. Remarks.
5. Metadata: Include the following information as keywords in the electronic submittal file metadata:
- a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
- E. Options: Clearly identify options requiring selection by Architect.
- F. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect and Construction Manager on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
- 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's and Construction Manager's action stamp.
- H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- I. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's and Construction Manager's action stamp.

PART 2 PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Submit electronic submittals as PDF electronic files directly to McCown Gordon. After review they will be posted to the appropriate Project file on the website specifically established for Project. Website is as follows:
 - a. <https://www.procoretech.com/account/login>.
 - 1) Username and password will be required and established upon award.
 - b. Architect, through Construction Manager, will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 - c. Along with the electronic submittal, Contractor shall submit to the Architect, one (1) full sized hard copy of each shop drawing for review and approval, as deemed necessary by the Architect.
 - d. Along with the electronic submittal, contractors shall submit to the Construction Manager, one (1) color deck or color card for each submittal requiring color selection for review, approval and color selection, as deemed necessary by the Architect.
 2. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
 3. Submittals shall constitute an implied statement by the General Contractor and Subcontractor that the submitted items comply with the following statements:
 - a. Items have been reviewed and accepted by the General Contractor and Subcontractor.
 - b. Items have been verified and coordinated with specifications, measurements, conditions, and relevant criteria of the Contract Documents.
 - c. Items can be fabricated and delivered to the project site within the proposed project schedule.
 4. Review of submittals by the Architect and/or Owner shall not relieve the Contractor from full compliance with the Construction Documents.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to clearly show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts/decks.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data before or concurrent with Samples and Shop Drawings, as applicable.

6. Submit Product Data in the following format:
 - a. PDF electronic file according to Paragraph 2.1 A.1.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, unless submittal based on Architect's digital data drawing files is otherwise permitted.
 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
 3. Submit Shop Drawings in the following format:
 - a. PDF electronic file according to Paragraph 2.1 A.1.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 - e. Specification paragraph number and generic name of each item.
 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Sample for "initial selection" shall be listed as a separate item in the submittal schedule.
 - b. Number of Samples: Unless specifically required otherwise in Specification Section, submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect, through Construction Manager, will return submittal with

- options selected.
6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect and Construction Manager will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
 7. Electronic Transmittal: Provide PDF transmittal for all physical Samples. Include digital image file illustrating Sample characteristics, and identification information for record.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
 5. Submit product schedule in the following format:
 - a. PDF electronic file.
- F. Coordination Drawing Submittals: Comply with requirements specified in Section 013100 "Project Management and Coordination."
- G. Contractor's Construction Schedule: Comply with requirements specified in Section 013200 "Construction Progress Documentation."
- H. Application for Payment and Schedule of Values: Comply with requirements specified in Section 012900 "Payment Procedures."
- I. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 014500 "Quality Requirements."
- J. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
- K. Maintenance Data: Comply with requirements specified in Section 017823 "Operation and Maintenance Data."

- L. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- M. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- N. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- O. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- P. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- Q. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- R. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- S. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- T. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - 7. Limitations of use.
- U. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

- V. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- W. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- X. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file in addition to three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.
- C. BIM File Incorporation: Incorporate delegated-design drawing and data files into Building Information Model established for Project.
 - 1. Prepare delegated-design drawings in the following format: Same digital data software program, version, and operating system as the original Drawings.

PART 3 EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect and Construction Manager.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 017700 "Closeout Procedures."

- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S AND CONSTRUCTION MANAGER'S ACTION

- A. Action Submittals: Contractor is responsible for conforming and correlating dimensions at job sites for tolerances, clearances, quantities, fabrication processes, coordination of the Work with multiple trades, and full compliance with the Contract Documents. The Architect will review submittals for general conformance with the Contract Documents. Architect and Construction Manager will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect and Construction Manager will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action as follows:
 - 1. No Exception Taken: Signifies item represented in the submittal conforms to the design intent, complies with the intent of the Contract Documents and is acceptable for incorporation into the Work. Contractor is to proceed with fabrication or procurement and related work.
 - 2. Exceptions Noted: Signifies item represented in the submittal conforms to the design concept, complies with the intent of the Contract Documents and is recommended for incorporation into the Work in accordance with the Architect's and/or Consultant's notations. Contractor is to proceed with the work in accordance the Architect's and/or Consultant's notations marked on the returned submittal or letter of transmittal. Resubmittal is not required.
 - 3. Revised and Resubmit: Signifies item represented in the submittal appears to conform to the design concept and comply with the intent of the Contract Documents, but information is either insufficient or contains discrepancies which prevent the Architect and/or his Consultant from completing his review. Contractor is to resubmit revised information. Fabrication or procurement of the item and related work is not to proceed until the submittal is acceptable.
 - 4. Not Accepted: Signifies item represented in the submittal does not conform to the design concept or comply with the intent of the Contract Documents and is not recommended for incorporation into the Work. Contractor shall submit items responsive to the Contract Documents.
- B. Informational Submittals: Architect and Construction Manager will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect and Construction Manager will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect and Construction Manager.

- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may be returned by the Architect without action.

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, Commissioning Authority, Construction Manager, or authorities having jurisdiction are not limited by provisions of this Section.
 - 4. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, Commissioning Authority or authorities having jurisdiction are not limited by provisions of this Section.
 - 5. Specific test and inspection requirements are not specified in this Section.

1.2 DEFINITIONS

- A. **Quality-Assurance Services:** Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. **Quality-Control Services:** Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect or Construction Manager.
- C. **Mockups/Field Samples:** Full-size physical assemblies that are constructed on-site. Mockups/field samples are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances.

Mockups/Field Samples are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

1. Laboratory Mockups: Full-size physical assemblies constructed and tested at testing facility to verify performance characteristics.
 2. Integrated Exterior Mockups: Mockups of the exterior envelope erected separately from the building but on Project site, consisting of multiple products, assemblies, and subassemblies.
 3. Integrated Field Samples: Field samples of select portions exterior envelope or interior construction erected as part of the Work. Field samples may consist of multiple products, assemblies, and subassemblies.
 4. Room Mockups: Mockups of typical interior spaces complete with wall, floor, and ceiling finishes; doors; windows; millwork; casework; specialties; furnishings and equipment; and lighting.
- D. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
- E. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- F. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- G. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- I. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- J. Experienced: When used with an entity or individual, "experienced" means, unless otherwise specified in the individual specification section, having successfully completed a minimum of five (5) previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.3 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with

specific performance and design criteria indicated.

1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

1.4 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.
 1. Whenever Contract Documents reasonably infer materials or installation as necessary to produce the intended results, but do not fully detail or specify such materials, the Contractor shall provide the more expensive method or material, or greater quantity, unless he has obtained a written decision from the Architect.

1.5 ACTION SUBMITTALS

- A. Shop Drawings: For integrated exterior mockups/field samples, provide plans, sections, and elevations, indicating materials and size of mockup construction.
 1. Indicate manufacturer and model number of individual components.
 2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.
- B. Delegated-Design Services Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

1.6 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems:
 1. Seismic-force-resisting system, designated seismic system, or component listed in the designated seismic system quality-assurance plan prepared by Architect.

2. Main wind-force-resisting system or a wind-resisting component listed in the wind-force-resisting system quality-assurance plan prepared by Architect.
- C. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- D. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
1. Specification Section number and title.
 2. Entity responsible for performing tests and inspections.
 3. Description of test and inspection.
 4. Identification of applicable standards.
 5. Identification of test and inspection methods.
 6. Number of tests and inspections required.
 7. Time schedule or time span for tests and inspections.
 8. Requirements for obtaining samples.
 9. Unique characteristics of each quality-control service.

1.7 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within 10 days of Notice to Proceed, and not less than five days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's construction schedule.
- B. Quality-Control Personnel Qualifications: Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.
1. Project quality-control manager may also serve as Project superintendent.
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:
1. Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections.
 2. Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."

3. Owner-performed tests and inspections indicated in the Contract Documents, including tests and inspections indicated to be performed by the Commissioning Authority.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.8 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
1. Date of issue.
 2. Project title and number.
 3. Name, address, and telephone number of testing agency.
 4. Dates and locations of samples and tests or inspections.
 5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 12. Name and signature of laboratory inspector.
 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of technical representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.

4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement that equipment complies with requirements.
 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 4. Statement whether conditions, products, and installation will affect warranty.
 5. Other required items indicated in individual Specification Sections.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.9 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
1. Refer to individual specification sections for additional requirements.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated.

Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - 1. Contractor responsibilities include the following:
 - a. Provide test specimens representative of proposed products and construction.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
 - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
 - e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
 - f. When testing is complete, remove test specimens, assemblies, and mockups; do not reuse products on Project.
 - 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, through Construction Manager, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

- K. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect or Construction Manager.
 2. Notify Architect and Construction Manager seven days in advance of dates and times when mockups will be constructed.
 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at Project.
 4. Demonstrate the proposed range of aesthetic effects and workmanship.
 5. Obtain Architect's and Construction Manager's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.
 6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 7. Unless otherwise indicated in the Contract Documents, demolish and remove mockups when directed unless otherwise indicated.
- L. Integrated Exterior Mockups: Construct integrated exterior mockup as indicated on Drawings. Coordinate installation of exterior envelope materials and products for which mockups are required in individual Specification Sections, along with supporting materials.
- M. Field Samples: Construct/apply field samples using required materials, products, finishes and assemblies, finished according to requirements for the completed work. Provide required lighting and additional lighting where required to enable Architect to evaluate quality of the Work:
1. Build field sample of size indicated or, if not indicated, as directed by Architect.
 2. Notify Architect three (3) days in advance of dates and times when field samples will be constructed/applied.
 3. Notify Architect and Construction Manager seven (7) days in advance of dates and times when field sample will be constructed/applied.
 4. Demonstrate the proposed aesthetic effects and workmanship to be incorporated into the Work.
 5. Obtain Architect's approval of field sample before starting remainder of work.
 - a. Allow three (3) days for initial review and each re-review of each field sample.
 6. Field samples not acceptable to Architect shall be re-constructed/re-applied until field sample is accepted to Architect.
 7. Maintain field sample during construction in an undisturbed condition as a standard for judging the completed Work

8. Unless otherwise indicated in the Contract Documents, dispose of field sample when directed by Architect and Owner.

1.10 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
 1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 2. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."
- D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of

Installer activities, inspection of completed portions of the Work, and submittal of written reports.

- E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- F. Testing Agency Responsibilities: Cooperate with Architect, Commissioning Authority, Construction Manager, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect, Commissioning Authority, Construction Manager, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 - 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 - 6. Do not perform any duties of Contractor.
- G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
 - 1. Access to the Work.
 - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4. Facilities for storage and field curing of test samples.
 - 5. Delivery of samples to testing agencies.
 - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents as a component of Contractor's quality-control plan. Coordinate and submit

concurrently with Contractor's construction schedule. Update as the Work progresses.

1. Distribution: Distribute schedule to Owner, Architect, Commissioning Authority, Construction Manager, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.11 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Owner will engage a qualified testing agency or special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
2. Notifying Architect, Commissioning Authority, Construction Manager, and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect and Commissioning Authority, through Construction Manager, with copy to Contractor and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and reinspecting corrected work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 TEST AND INSPECTION LOG

A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.
2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to Architect.
4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's, Commissioning Authority's, and Construction Manager's reference during normal working hours.

3.2 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 014200 - REFERENCES

PART 1 GENERAL

1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.3 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is subject to

change and is believed to be accurate as of the date of the Contract Documents.

1. AABC - Associated Air Balance Council; www.aabc.com
2. AAMA - American Architectural Manufacturers Association; www.aamanet.org.
3. AAPFCO - Association of American Plant Food Control Officials; www.aapfco.org.
4. AASHTO - American Association of State Highway and Transportation Officials; www.transportation.org.
5. AATCC - American Association of Textile Chemists and Colorists; www.aatcc.org.
6. ABMA - American Bearing Manufacturers Association; www.americanbearings.org.
7. ABMA - American Boiler Manufacturers Association; www.abma.com.
8. ACI - American Concrete Institute; (Formerly: ACI International); www.concrete.org.
9. ACPA - American Concrete Pipe Association; www.concrete-pipe.org.
10. AEIC - Association of Edison Illuminating Companies, Inc. (The); www.aeic.org.
11. AF&PA - American Forest & Paper Association; www.afandpa.org.
12. AGA - American Gas Association; www.aga.org.
13. AHAM - Association of Home Appliance Manufacturers; www.aham.org.
14. AHRI - Air-Conditioning, Heating, and Refrigeration Institute (The); www.ahrinet.org.
15. AI - Asphalt Institute; www.asphaltinstitute.org.
16. AIA - American Institute of Architects (The); www.aia.org.
17. AISC - American Institute of Steel Construction; www.aisc.org.
18. AISI - American Iron and Steel Institute; www.steel.org.
19. AITC - American Institute of Timber Construction; www.aitc-glulam.org.
20. AMCA - Air Movement and Control Association International, Inc.; www.amca.org.
21. ANSI - American National Standards Institute; www.ansi.org.
22. AOSA - Association of Official Seed Analysts, Inc.; www.aosaseed.com.
23. APA - APA - The Engineered Wood Association; www.apawood.org.
24. APA - Architectural Precast Association; www.archprecast.org.
25. API - American Petroleum Institute; www.api.org.
26. ARI - Air-Conditioning & Refrigeration Institute; (See AHRI).
27. ARI - American Refrigeration Institute; (See AHRI).
28. ARMA - Asphalt Roofing Manufacturers Association; www.asphaltroofing.org.
29. ASCE - American Society of Civil Engineers; www.asce.org.
30. ASCE/SEI - American Society of Civil Engineers/Structural Engineering Institute; (See ASCE).
31. ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers; www.ashrae.org.
32. ASME - ASME International; (American Society of Mechanical Engineers); www.asme.org.

33. ASSE - American Society of Safety Engineers (The); www.asse.org.
34. ASSE - American Society of Sanitary Engineering; www.asse-plumbing.org.
35. ASTM - ASTM International; www.astm.org.
36. ATIS - Alliance for Telecommunications Industry Solutions; www.atis.org.
37. AWEA - American Wind Energy Association; www.awea.org.
38. AWI - Architectural Woodwork Institute; www.awinet.org.
39. AWMAC - Architectural Woodwork Manufacturers Association of Canada; www.awmac.com.
40. AWPA - American Wood Protection Association; www.awpa.com.
41. AWS - American Welding Society; www.aws.org.
42. AWWA - American Water Works Association; www.awwa.org.
43. BHMA - Builders Hardware Manufacturers Association; www.buildershardware.com.
44. BIA - Brick Industry Association (The); www.gobrick.com.
45. BICSI - BICSI, Inc.; www.bicsi.org.
46. BIFMA - BIFMA International; (Business and Institutional Furniture Manufacturer's Association); www.bifma.org.
47. BISSC - Baking Industry Sanitation Standards Committee; www.bissc.org.
48. BWF - Badminton World Federation; (Formerly: International Badminton Federation); www.bwfbadminton.org.
49. CDA - Copper Development Association; www.copper.org.
50. CEA - Canadian Electricity Association; www.electricity.ca.
51. CEA - Consumer Electronics Association; www.ce.org.
52. CFFA - Chemical Fabrics and Film Association, Inc.; www.chemicalfabricsandfilm.com.
53. CFSEI - Cold-Formed Steel Engineers Institute; www.cfsei.org.
54. CGA - Compressed Gas Association; www.cganet.com.
55. CIMA - Cellulose Insulation Manufacturers Association; www.cellulose.org.
56. CISCA - Ceilings & Interior Systems Construction Association; www.cisca.org.
57. CISPI - Cast Iron Soil Pipe Institute; www.cispi.org.
58. CLFMI - Chain Link Fence Manufacturers Institute; www.chainlinkinfo.org.
59. CPA - Composite Panel Association; www.compositepanel.org.
60. CRI - Carpet and Rug Institute (The); www.carpet-rug.org.
61. CRRC - Cool Roof Rating Council; www.coolroofs.org.
62. CRSI - Concrete Reinforcing Steel Institute; www.crsi.org.
63. CSA - Canadian Standards Association; www.csa.ca.

64. CSA - CSA International; (Formerly: IAS - International Approval Services); www.csa-international.org.
65. CSI - Construction Specifications Institute (The); www.csiresources.org.
66. CSSB - Cedar Shake & Shingle Bureau; www.cedarbureau.org.
67. CTI - Cooling Technology Institute; (Formerly: Cooling Tower Institute); www.cti.org.
68. CWC - Composite Wood Council; (See CPA).
69. DASMA - Door and Access Systems Manufacturers Association; www.dasma.com.
70. DHI - Door and Hardware Institute; www.dhi.org.
71. ECA - Electronic Components Association; (See ECIA).
72. ECAMA - Electronic Components Assemblies & Materials Association; (See ECIA).
73. ECIA - Electronic Components Industry Association; www.eciaonline.org.
74. EIA - Electronic Industries Alliance; (See TIA).
75. EIMA - EIFS Industry Members Association; www.eima.com.
76. EJMA - Expansion Joint Manufacturers Association, Inc.; www.ejma.org.
77. ESD - ESD Association; (Electrostatic Discharge Association); www.esda.org.
78. ESTA - Entertainment Services and Technology Association; (See PLASA).
79. EVO - Efficiency Valuation Organization; www.evo-world.org.
80. FCI - Fluid Controls Institute; www.fluidcontrolsinstitute.org.
81. FIBA - Federation Internationale de Basketball; (The International Basketball Federation); www.fiba.com.
82. FIVB - Federation Internationale de Volleyball; (The International Volleyball Federation); www.fivb.org.
83. FM Approvals - FM Approvals LLC; www.fmglobal.com.
84. FM Global - FM Global; (Formerly: FMG - FM Global); www.fmglobal.com.
85. FRSA - Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc.; www.floridarroof.com.
86. FSA - Fluid Sealing Association; www.fluidsealing.com.
87. FSC - Forest Stewardship Council U.S.; www.fscus.org.
88. GA - Gypsum Association; www.gypsum.org.
89. GANA - Glass Association of North America; www.glasswebsite.com.
90. GS - Green Seal; www.greenseal.org.
91. HI - Hydraulic Institute; www.pumps.org.
92. HI/GAMA - Hydronics Institute/Gas Appliance Manufacturers Association; (See AHRI).
93. HMMA - Hollow Metal Manufacturers Association; (See NAAMM).
94. HPVA - Hardwood Plywood & Veneer Association; www.hpva.org.
95. HPW - H. P. White Laboratory, Inc.; www.hpwhite.com.
96. IAPSC - International Association of Professional Security Consultants; www.iapsc.org.

97. IAS - International Accreditation Service; www.iasonline.org.
98. IAS - International Approval Services; (See CSA).
99. ICBO - International Conference of Building Officials; (See ICC).
100. ICC - International Code Council; www.iccsafe.org.
101. ICEA - Insulated Cable Engineers Association, Inc.; www.icea.net.
102. ICPA - International Cast Polymer Alliance; www.icpa-hq.org.
103. ICRI - International Concrete Repair Institute, Inc.; www.icri.org.
104. IEC - International Electrotechnical Commission; www.iec.ch.
105. IEEE - Institute of Electrical and Electronics Engineers, Inc. (The); www.ieee.org.
106. IES - Illuminating Engineering Society; (Formerly: Illuminating Engineering Society of North America); www.ies.org.
107. IESNA - Illuminating Engineering Society of North America; (See IES).
108. IEST - Institute of Environmental Sciences and Technology; www.iest.org.
109. IGMA - Insulating Glass Manufacturers Alliance; www.igmaonline.org.
110. IGSHPA - International Ground Source Heat Pump Association; www.igshpa.okstate.edu.
111. ILI - Indiana Limestone Institute of America, Inc.; www.iliai.com.
112. Intertek - Intertek Group; (Formerly: ETL SEMCO; Intertek Testing Service NA); www.intertek.com.
113. ISA - International Society of Automation (The); (Formerly: Instrumentation, Systems, and Automation Society); www.isa.org.
114. ISAS - Instrumentation, Systems, and Automation Society (The); (See ISA).
115. ISFA - International Surface Fabricators Association; (Formerly: International Solid Surface Fabricators Association); www.isfanow.org.
116. ISO - International Organization for Standardization; www.iso.org.
117. ISSFA - International Solid Surface Fabricators Association; (See ISFA).
118. ITU - International Telecommunication Union; www.itu.int/home.
119. KCMA - Kitchen Cabinet Manufacturers Association; www.kcma.org.
120. LMA - Laminating Materials Association; (See CPA).
121. LPI - Lightning Protection Institute; www.lightning.org.
122. MBMA - Metal Building Manufacturers Association; www.mbma.com.
123. MCA - Metal Construction Association; www.metalconstruction.org.
124. MFMA - Maple Flooring Manufacturers Association, Inc.; www.maplefloor.org.
125. MFMA - Metal Framing Manufacturers Association, Inc.; www.metalframingmfg.org.
126. MHIA - Material Handling Industry of America; www.mhia.org.

127. MIA - Marble Institute of America; www.marble-institute.com.
128. MMPA - Moulding & Millwork Producers Association; www.wmmpa.com.
129. MPI - Master Painters Institute; www.paintinfo.com.
130. MSS - Manufacturers Standardization Society of The Valve and Fittings Industry Inc.; www.mss-hq.org.
131. NAAMM - National Association of Architectural Metal Manufacturers; www.naamm.org.
132. NACE - NACE International; (National Association of Corrosion Engineers International); www.nace.org.
133. NADCA - National Air Duct Cleaners Association; www.nadca.com.
134. NAIMA - North American Insulation Manufacturers Association; www.naima.org.
135. NBGQA - National Building Granite Quarries Association, Inc.; www.nbgqa.com.
136. NBI - New Buildings Institute; www.newbuildings.org.
137. NCAA - National Collegiate Athletic Association (The); www.ncaa.org.
138. NCMA - National Concrete Masonry Association; www.ncma.org.
139. NEBB - National Environmental Balancing Bureau; www.nebb.org.
140. NECA - National Electrical Contractors Association; www.necanet.org.
141. NeLMA - Northeastern Lumber Manufacturers Association; www.nelma.org.
142. NEMA - National Electrical Manufacturers Association; www.nema.org.
143. NETA - InterNational Electrical Testing Association; www.netaworld.org.
144. NFHS - National Federation of State High School Associations; www.nfhs.org.
145. NFPA - National Federation of State High School Associations; www.nfpa.org.
146. NFPA - NFPA International; (See NFPA).
147. NFRC - National Fenestration Rating Council; www.nfrc.org.
148. NHLA - National Hardwood Lumber Association; www.nhla.com.
149. NLGA - National Lumber Grades Authority; www.nlga.org.
150. NOFMA - National Oak Flooring Manufacturers Association; (See NWFA).
151. NOMMA - National Ornamental & Miscellaneous Metals Association; www.nomma.org.
152. NRCA - National Roofing Contractors Association; www.nrca.net.
153. NRMCA - National Ready Mixed Concrete Association; www.nrmca.org.
154. NSF - NSF International; www.nsf.org.
155. NSPE - National Society of Professional Engineers; www.nspe.org.
156. NSSGA - National Stone, Sand & Gravel Association; www.nssga.org.
157. NTMA - National Terrazzo & Mosaic Association, Inc. (The); www.ntma.com.
158. NWFA - National Wood Flooring Association; www.nwfa.org.
159. PCI - Precast/Prestressed Concrete Institute; www.pci.org.

160. PDI - Plumbing & Drainage Institute; www.pdionline.org.
161. PLASA - PLASA; (Formerly: ESTA - Entertainment Services and Technology Association); www.plasa.org.
162. RCSC - Research Council on Structural Connections; www.boltcouncil.org.
163. RFCI - Resilient Floor Covering Institute; www.rfci.com.
164. RIS - Redwood Inspection Service; www.redwoodinspection.com.
165. SAE - SAE International; www.sae.org.
166. SCTE - Society of Cable Telecommunications Engineers; www.scte.org.
167. SDI - Steel Deck Institute; www.sdi.org.
168. SDI - Steel Door Institute; www.steeldoor.org.
169. SEFA - Scientific Equipment and Furniture Association (The); www.sefalabs.com.
170. SEI/ASCE - Structural Engineering Institute/American Society of Civil Engineers; (See ASCE).
171. SIA - Security Industry Association; www.siaonline.org.
172. SJI - Steel Joist Institute; www.steeljoist.org.
173. SMA - Screen Manufacturers Association; www.smainfo.org.
174. SMACNA - Sheet Metal and Air Conditioning Contractors' National Association; www.smacna.org.
175. SMPTE - Society of Motion Picture and Television Engineers; www.smpte.org.
176. SPFA - Spray Polyurethane Foam Alliance; www.sprayfoam.org.
177. SPIB - Southern Pine Inspection Bureau; www.spib.org.
178. SPRI - Single Ply Roofing Industry; www.spri.org.
179. SRCC - Solar Rating & Certification Corporation; www.solar-rating.org.
180. SSINA - Specialty Steel Industry of North America; www.ssina.com.
181. SSPC - SSPC: The Society for Protective Coatings; www.sspc.org.
182. STI - Steel Tank Institute; www.steeltank.com.
183. SWI - Steel Window Institute; www.steelwindows.com.
184. SWPA - Submersible Wastewater Pump Association; www.swpa.org.
185. TCA - Tilt-Up Concrete Association; www.tilt-up.org.
186. TCNA - Tile Council of North America, Inc.; www.tileusa.com.
187. TEMA - Tubular Exchanger Manufacturers Association, Inc.; www.tema.org.
188. TIA - Telecommunications Industry Association (The); (Formerly: TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance); www.tiaonline.org.
189. TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance; (See TIA).
190. TMS - The Masonry Society; www.masonrysociety.org.
191. TPI - Truss Plate Institute; www.tpinst.org.

192. TPI - Turfgrass Producers International; www.turfgrassod.org.
193. TRI - Tile Roofing Institute; www.tilerroofing.org.
194. UL - Underwriters Laboratories Inc.; www.ul.com.
195. UNI - Uni-Bell PVC Pipe Association; www.uni-bell.org.
196. USAV - USA Volleyball; www.usavolleyball.org.
197. USGBC - U.S. Green Building Council; www.usgbc.org.
198. USITT - United States Institute for Theatre Technology, Inc.; www.usitt.org.
199. WASTEC - Waste Equipment Technology Association; www.wastec.org.
200. WCLIB - West Coast Lumber Inspection Bureau; www.wclib.org.
201. WCMA - Window Covering Manufacturers Association; www.wcmanet.org.
202. WDMA - Window & Door Manufacturers Association; www.wdma.com.
203. WI - Woodwork Institute; www.wicnet.org.
204. WSRCA - Western States Roofing Contractors Association; www.wsrca.com.
205. WWPA - Western Wood Products Association; www.wwpa.org.

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.

1. DIN - Deutsches Institut für Normung e.V.; www.din.de.
2. IAPMO - International Association of Plumbing and Mechanical Officials; www.iapmo.org.
3. ICC - International Code Council; www.iccsafe.org.
4. ICC-ES - ICC Evaluation Service, LLC; www.icc-es.org.

C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Information is subject to change and is up to date as of the date of the Contract Documents.

1. COE - Army Corps of Engineers; www.usace.army.mil.
2. CPSC - Consumer Product Safety Commission; www.cpsc.gov.
3. DOC - Department of Commerce; National Institute of Standards and Technology; www.nist.gov.
4. DOD - Department of Defense; www.quicksearch.dla.mil.
5. DOE - Department of Energy; www.energy.gov.
6. EPA - Environmental Protection Agency; www.epa.gov.
7. FAA - Federal Aviation Administration; www.faa.gov.
8. FG - Federal Government Publications; www.gpo.gov/fdsys.
9. GSA - General Services Administration; www.gsa.gov.

10. HUD - Department of Housing and Urban Development; www.hud.gov.
 11. LBL - Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; www.eetd.lbl.gov.
 12. OSHA - Occupational Safety & Health Administration; www.osha.gov.
 13. SD - Department of State; www.state.gov.
 14. TRB - Transportation Research Board; National Cooperative Highway Research Program; The National Academies; www.trb.org.
 15. USDA - Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; www.ars.usda.gov.
 16. USDA - Department of Agriculture; Rural Utilities Service; www.usda.gov.
 17. USDJ - Department of Justice; Office of Justice Programs; National Institute of Justice; www.ojp.usdoj.gov.
 18. USP - U.S. Pharmacopeial Convention; www.usp.org.
 19. USPS - United States Postal Service; www.usps.com.
- D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.
1. CFR - Code of Federal Regulations; Available from Government Printing Office; www.gpo.gov/fdsys.
 2. DOD - Department of Defense; Military Specifications and Standards; Available from DLA Document Services; www.quicksearch.dla.mil.
 3. DSCC - Defense Supply Center Columbus; (See FS).
 4. FED-STD - Federal Standard; (See FS).
 5. FS - Federal Specification; Available from DLA Document Services; www.quicksearch.dla.mil.
 - a. Available from Defense Standardization Program; www.dsp.dla.mil.
 - b. Available from General Services Administration; www.gsa.gov.
 - c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org/ccb.
 6. MILSPEC - Military Specification and Standards; (See DOD).
 7. USAB - United States Access Board; www.access-board.gov.
 8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).
- E. State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.
1. CBHF; State of California; Department of Consumer Affairs; Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation; www.bearhfti.ca.gov.

2. CCR; California Code of Regulations; Office of Administrative Law; California Title 24 Energy Code; www.calregs.com.
3. CDHS; California Department of Health Services; (See CDPH).
4. CDPH; California Department of Public Health; Indoor Air Quality Program; www.cal-iaq.org.
5. CPUC; California Public Utilities Commission; www.cpuc.ca.gov.
6. SCAQMD; South Coast Air Quality Management District; www.aqmd.gov.
7. TFS; Texas A&M Forest Service; Sustainable Forestry and Economic Development; www.txforestservation.tamu.edu.
8. Colorado Department of Public Health & Environment; www.colorado.gov/pacific/cdphe
9. Colorado Air Quality Control Commission; www.colorado.gov/pacific/cdphe/aqcc
10. Colorado Water Quality Control Division; www.colorado.gov/pacific/cdphe/wqcd
11. Colorado Geological Survey; Land Use Regulations; www.coloradogeologicalsurvey.org/land-use-regulations/

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 014200

SECTION 014529 - TESTING AND INSPECTIONS

PART 1 - GENERAL

1.1 GENERAL

- A. The preceding "General Conditions" are a part of these specifications and the Contractor shall consult them in detail in connection with this part of the work.

1.2 SCOPE OF WORK

- A. Employment of a testing and inspection firm approved and paid for by the Owner. Approximate scope of testing and inspection shall be as indicated on the drawings and herein specified in the sections of the specifications.
 - 1. Refer to attachment for scope of testing to be provided by Owner.

1.3 TESTING AND INSPECTION CHARGES

- A. For the following conditions, costs of testing and inspection services shall be paid for by the Contractor, apart from the Testing and Inspection.
 - 1. Costs arising from errors or omissions by the Contractor.
 - 2. Costs of concrete cores, of re-testing materials that fail, and of required identification of materials (mill tests, manufacturers certifications, etc.).
 - 3. Costs of test and inspections required to expedite the Contractors operations.

1.4 EARTHWORK

- A. The Soils Engineer shall be notified for inspection by the Contractor and shall work in cooperation with the Architect. This inspection shall be made before any excavation is attempted on the site. If any undesirable conditions are encountered during Construction, the Soils Engineer shall be notified so that supplemental recommendations can be made. Tests shall be made to define maximum densities of all compaction work. All densities shall be expressed as a relative compaction, in terms of the maximum dry density obtained in the laboratory. The Soils Engineer shall supervise all engineered fill, and make field tests to insure compliance with the required placement of footings; methods of placing and compacting fills; filter and/or rock fill materials.

1.5 CONCRETE WORK

- A. Reinforcement shall be positively identified by heat numbers and mill analysis. Otherwise, Contractor shall provide test by qualified laboratory, one test for each 5 tons or fraction thereof, each size and type of reinforcing steel. Cement shall be from tested bins and properly identified at the mixing plant. Contractor shall provide to the testing laboratory, aggregate samples for approval. Testing laboratory shall prepare 3 concrete cylinders for each 25 cubic yards, or fraction thereof placed – 2 cylinders to be tested at 7 days, and 1 cylinder at 28 days. Follow ASTM standards throughout.

1.6 GENERAL TESTS AND INSPECTIONS

- A. Observe all building code test and inspection requirements. Notify proper State, County and City authorities, for their required inspections.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

END OF SECTION 014529

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.
 - 2. Section 321216 "Asphalt Paving" for construction and maintenance of asphalt pavement for temporary roads and paved areas.

1.2 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.
- C. Water Service: Pay water-service use charges for water used by all entities for construction operations.
- D. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.

1.3 INFORMATIONAL SUBMITTALS

- A. Site Plan: Locations for temporary facilities, utility hookups, staging areas, and parking areas for construction personnel are indicated on the Civil Drawings.
- B. Erosion- and Sedimentation-Control Plan: Civil Drawings show a "general" erosion and sedimentation-control plan. Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
- C. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- D. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage.
 - 1. Describe delivery, handling, and storage provisions for materials subject to water absorption or water damage.
 - 2. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
 - 3. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials and plastering, and concrete grinding, and describe plans for dealing with water from these operations. Show procedures for

verifying that wet construction has dried sufficiently to permit installation of finish materials.

- E. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
1. Locations of dust-control partitions at each phase of work.
 2. HVAC system isolation schematic drawing.
 3. Location of proposed air-filtration system discharge.
 4. Waste handling procedures.
 5. Other dust-control measures.

1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1, whichever is more stringent.

1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 PRODUCTS

2.1 MATERIALS

- A. General: Contractor's option to provide one of the following types of chain-link fencing:
1. Chain-Link Fencing: Minimum 2-inch, 0.148-inch- thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts.
 2. Portable Chain-Link Fencing: Minimum 2-inch, 0.148-inch- thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top and bottom rails. Provide concrete or galvanized-steel bases for supporting posts.
- B. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil minimum thickness, with flame-spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.

- C. Dust-Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches.
- D. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Common-Use Field Office: Construction Manager will provide common-use field office. Field office shall be of sufficient size to accommodate needs of Owner, Architect, Construction Manager, and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:
 - 1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, and bookcases. Desk for Architect, duplex outlet and internet access.
 - 2. Conference room of sufficient size to accommodate meetings of at least 10 individuals. Provide electrical power service and 120-V ac duplex receptacles, with no fewer than one receptacle on each wall. Furnish room with conference table, chairs, and 4-foot- square tack and marker boards.
 - 3. Drinking water and private toilet.
 - 4. Coffee machine and supplies.
 - 5. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F.
 - 6. Lighting fixtures capable of maintaining average illumination of 20 fc at desk height.
- C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
 - 1. Store combustible materials apart from building.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Owner authorizes use of permanent HVAC systems. Where permanent HVAC systems have not been installed, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
 - 2. Heating Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
 - 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air grille in system and remove at end of

construction and clean HVAC system as required in Section 017700 "Closeout Procedures".

4. De-Humidification Units: Listed and labeled for the area and volume of spaces to be dehumidified, with individual controls for monitoring environmental humidity levels.
- C. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 3 EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Construction Manager will install temporary service or connect to existing service.
 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
 1. Connect temporary sewers as directed by authorities having jurisdiction.
 2. Contractor shall be responsible for full costs of cleanout and correction of related damages due to blockages.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 1. Construction Manager will furnish temporary toilets.
- E. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- F. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.

- G. Electric Power Service: Where Owner's existing power service is insufficient, Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
 - 1. Install electric power service overhead unless otherwise indicated.
 - 2. Connect temporary service to Owner's existing power source, as directed by Owner.
- H. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - 2. Install lighting for Project identification sign.
- I. Telephone Service: Construction Manager will provide temporary telephone service in common-use facilities for use by all construction personnel. Install one telephone line(s) for each field office.
 - 1. Contractor's Telephone Service: Contractors shall be available during construction via cellular telephone.
 - 2. At each telephone in common-use facilities, post a list of important telephone numbers.
 - a. Police and fire departments.
 - b. Ambulance service.
 - c. Construction Manager's home office.
 - d. Each Contractor's field and home office.
 - e. Each Contractor's emergency after-hours telephone number.
 - f. Architect's office.
 - g. Engineers' offices.
 - h. Owner's office.
 - i. Principal subcontractors' field and home offices.
 - 3. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
 - 1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
 - 2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas as indicated on Civil Drawings.
 - 1. Provide dust-control treatment that is nonpolluting and non-tracking. Reapply treatment as required to minimize dust.
- C. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas

adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.

1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Section 312000 "Earth Moving."
3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.

D. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

E. Parking: Refer to Site Logistics Plan for parking areas for construction personnel.

F. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
2. Remove snow and ice as required to minimize accumulations.

G. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.

1. Identification Signs: Provide Project identification signs as indicated on Drawings.
2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
3. Maintain and touchup signs so they are legible at all times.

H. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

I. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

J. Temporary Use of Permanent Stairs: Use of new stairs for construction traffic will be permitted, provided stairs are protected and finishes restored to new condition at time of Substantial Completion.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair

damage to existing facilities.

- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with work restrictions specified in Section 011000 "Summary."
- C. Temporary Erosion and Sedimentation Control: Comply with requirements of current EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent and requirements set forth in approved Storm Water Pollution Prevention Plan (SWPPP).
- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
 - 1. Refer to approved Storm Water Pollution Prevention Plan (SWPPP).
- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- G. Site Enclosure Fence: Prior to commencing earthwork, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
 - 1. Extent of Fence: As indicated on Drawings.
- H. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- I. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- J. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- K. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.

- L. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate occupied areas from fumes and noise as deemed necessary by Construction Manager.
 - 1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant-treated plywood on construction operations side.
 - 2. Where fire-resistance-rated temporary partitions are indicated or are required by authorities having jurisdiction, construct partitions according to the rated assemblies.
 - 3. Insulate partitions to control noise transmission to occupied areas.
 - 4. Provide foam gasketing, attached to framing and not to construction to remain, to seal joints and perimeter of temporary partition. Equip partitions with gasketed dustproof doors and security locks where openings are required.
 - 5. Protect air-handling equipment.
 - 6. Provide walk-off mats at each entrance through temporary partition.
- M. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
 - 1. Prohibit smoking in construction areas.
 - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 - 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 - 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.5 TEMPORARY SEEDING INSTALLATION

- A. General: Temporary seeding is the establishment of fast growing annual vegetation to provide erosion control for up to twelve (12) months and reduce the amount of sediment moving off the site. Annual plants, which sprout rapidly and survive for only one growing season are suitable for establishing temporary vegetation cover. This practice applies where short-lived vegetation can be established before final grading or in a season not suitable for permanent seeding.
- B. Seed: All seed shall conform to Federal Specification JJJ-S-1816. Provide fresh, clean, new-crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America. Furnish seed on sealed standard containers, labeled in accordance with U.S. Department of Agriculture Rules

and Regulations under current Federal Seed Act.

1. Seed which has become wet, moldy, or otherwise damaged in transit or storage will not be acceptable.
- C. Temporary Seed: Provide seed mixture composed of plant species, proportions and minimum percentages of purity, germination and maximum percentage of weed seed as follows for each seed mix:
1. LBs / Acre - 120
 2. % Purity - 98
 3. % Germ - 85
- D. The preferred method of seeding would be drills for wheat and slit seeding for rye. Sow seed using a slit seeding machine or spreader at 2" centers. Do not seed when wind velocity exceeds 15 miles per hour.
- E. Protect all seeded areas with straw mulch as follows:
1. The contractor shall straw mulch all seeded areas. The straw shall be free of weed seed and such foreign materials that may detract from the effectiveness as mulch, erosion control or impede desired plant growth.
 2. Immediately or within twenty-four (24) hours after any given area is seeded, straw shall be evenly placed with a mechanical blower or by hand over all seeded areas at the rate of approximately one and one-half (1-1/2) tons per acre. The proper mulch application when viewed straight down shall appear to be 50% mulch and 50% of the soil surface below. Crimp straw into soil by mechanical means.
 3. Any seedbed areas or other work which was damaged as a result of applying the mulch shall be repaired at the discretion of the Architect or Landscape Architect.

3.6 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
1. Protect porous materials from water damage.
 2. Protect stored and installed material from flowing or standing water.
 3. Keep porous and organic materials from coming into prolonged contact with concrete.
 4. Remove standing water from decks.
 5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.

2. Keep interior spaces reasonably clean and protected from water damage.
3. Periodically collect and remove waste containing cellulose or other organic matter.
4. Discard or replace water-damaged material.
5. Do not install material that is wet.
6. Discard, replace, or clean stored or installed material that begins to grow mold.
7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.

D. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:

1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
2. Use permanent HVAC system to control humidity.
3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.
 - a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective.
 - b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
 - c. Remove materials that cannot be completely restored to their manufactured moisture level within 48 hours.

3.7 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Operate Project-identification-sign lighting daily from dusk until 12:00 midnight.
- D. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- E. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
 - 1. Section 012100 "Allowances" for products selected under an allowance.
 - 2. Section 012200 "Unit Prices" for products selected under a unit price.
 - 3. Section 012300 "Alternates" for products selected under an alternate.
 - 4. Section 012500 "Substitution Procedures" for requests for substitutions.
 - 5. Section 014200 "References" for applicable industry standards for products specified.

1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.
- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named product or product from another named

manufacturer that does meet the requirements of the specifications.

1.3 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 - 2. Architects Action: For comparable products submitted for "Cause", if necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later. For comparable products submitted for "Contractor's Convenience", Contractor must submit all information necessary to make a direct comparison to specified product for Architect's review, no additional information may be submitted.
 - a. Form of Approval: As specified in Section 012500 "Substitution Procedures."
 - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.4 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
 - 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.

3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.

1.6 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 1. **Manufacturer's Warranty:** Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. **Special Warranty:** Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. **Special Warranties:** Prepare a written document that contains appropriate terms and identification, ready for execution.
 1. **Manufacturer's Standard Form:** Modified to include Project-specific information and properly executed.
 2. **Specified Form:** When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
 3. See other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. **Submittal Time:** Comply with requirements in Section 017700 "Closeout Procedures."

PART 2 PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Architect will make selection.
 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
- B. Product Selection Procedures:
1. Products:
 - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered prior to bidding only.
 - b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
 2. Manufacturers:
 - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered prior to bidding only.
 - b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
 3. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
- C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 5. Samples, if requested.

PART 3 EXECUTION (NOT USED)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Coordination of Owner-installed products.
 - 6. Progress cleaning.
 - 7. Starting and adjusting.
 - 8. Protection of installed construction.
 - 9. Correction of the Work.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for limits on use of Project site.
 - 2. Section 013300 "Submittal Procedures" for submitting surveys.
 - 3. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
 - 4. Section 024119 "Selective Demolition" for demolition and removal of selected portions of the building.
 - 5. Section 078413 "Penetration Firestopping" for patching penetrations in fire-rated construction.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For land surveyor or professional engineer.
- B. Certificates: Contractor shall certify that location and elevation of improvements comply with requirements.
- C. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.
- D. Certified Surveys: Submit one paper copy and one electronic copy, signed by professional engineer.
- E. Final Property Survey: Submit two copies showing the Work performed and record survey data.

1.4 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational elements include the following:
 - a. Primary operational systems and equipment.
 - b. Fire separation assemblies.
 - c. Air or smoke barriers.
 - d. Fire-suppression systems.
 - e. Mechanical systems piping and ducts.
 - f. Control systems.
 - g. Communication systems.
 - h. Fire-detection and -alarm systems.
 - i. Conveying systems.
 - j. Electrical wiring systems.
 - k. Operating systems of special construction.
 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Other construction elements include but are not limited to the following:
 - a. Water, moisture, or vapor barriers.
 - b. Membranes and flashings.
 - c. Exterior curtain-wall construction.
 - d. Sprayed fire-resistive material.
 - e. Equipment supports.
 - f. Piping, ductwork, vessels, and equipment.
 - g. Noise- and vibration-control elements and systems.
 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

- D. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - 1. Description of the Work.
 - 2. List of detrimental conditions, including substrates.
 - 3. List of unacceptable installation tolerances.
 - 4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. **Field Measurements:** Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. **Space Requirements:** Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. **Review of Contract Documents and Field Conditions:** Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A. **Verification:** Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect and Construction Manager promptly.
- B. **General:** Engage a land surveyor or professional engineer to lay out the Work using accepted surveying practices.
 - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
 - 2. Establish limits on use of Project site.
 - 3. Establish lines and levels of construction and elsewhere as needed to locate work for the Project.
 - 4. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 - 5. Inform installers of lines and levels to which they must comply.
 - 6. Check the location, level and plumb, of every major element as the Work progresses.
 - 7. Notify Architect and Construction Manager when deviations from required lines and levels exceed allowable tolerances.
 - 8. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. **Site Improvements:** Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. **Building Lines and Levels:** Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. **Record Log:** Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party

member, and types of instruments and tapes used. Make the log available for reference by Architect and Construction Manager.

3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect or Construction Manager. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect and Construction Manager before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- C. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- D. Final Property Survey: Engage a land surveyor or professional engineer to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor or professional engineer, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
 - 1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.
 - 2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 96 inches in occupied spaces and 90 inches in unoccupied spaces.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

K. Repair or remove and replace damaged, defective, or nonconforming Work.

1. Comply with Section 017700 "Closeout Procedures" for repairing or removing and replacing defective work.

3.6 CUTTING AND PATCHING

A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with material so as not to void existing warranties.

C. Temporary Support: Provide temporary support of work to be cut.

D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

E. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
6. Proceed with patching after construction operations requiring cutting are complete.

G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.
 1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
 2. Preinstallation Conferences: Include Owner's construction personnel at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

3.8 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.

3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.
 4. Construction Manager will coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
1. Remove liquid spills promptly.
 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.9 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
1. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.

2. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

B. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

3.10 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

1. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Salvaging nonhazardous demolition waste.
 - 2. Disposing of nonhazardous demolition and construction waste.
- B. Related Requirements:
 - 1. Section 024119 "Selective Demolition" for disposition of waste resulting from partial demolition of buildings, structures, and site improvements.

1.2 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- E. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.3 INFORMATIONAL SUBMITTALS

- A. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- B. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

1.4 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the

Contract.

1. Comply with operation, termination, and removal requirements in Section 015000 "Temporary Facilities and Controls."
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
 2. Comply with Section 015000 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
 1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
 3. Store items in a secure area until installation.
 4. Protect items from damage during transport and storage.
 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:
 1. Clean salvaged items.
 2. Store items in a secure area until delivery to Owner.
 3. Transport items to Owner's storage area designated by Owner.
- C. Doors and Hardware: Brace open end of door frames. Except for removing door closers, leave door hardware attached to doors.
- D. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- E. Plumbing Fixtures: Separate by type and size.
- F. Lighting Fixtures: Separate lamps by type and protect from breakage.
- G. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.

3.3 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Remove waste materials from Owner's property and legally dispose of them.

END OF SECTION 017419

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.
- B. Related Requirements:
 - 1. Section 017300 "Execution" for progress cleaning of Project site.
 - 2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 3. Section 017839 "Project Record Documents" for submitting record Drawings and record Product Data.
 - 4. Section 017900 "Demonstration and Training" for requirements for instructing Owner's personnel.

1.2 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest control inspection.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.5 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of ten (10) days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's signature for receipt of submittals.
 5. Submit test/adjust/balance records.
 6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of ten (10) days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."
 6. Advise Owner of changeover in heat and other utilities.
 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Complete final cleaning requirements, including touchup painting.
 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of ten (10) days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed

or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.6 FINAL COMPLETION PROCEDURES

A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:

1. Submit a final Application for Payment according to Section 012900 "Payment Procedures."
2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Submit pest-control final inspection report.

B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect and Construction Manager will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.7 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use CSI Form 14.1A.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect
 - d. Name of Construction Manager.
 - e. Name of Contractor.
 - f. Page number.

4. Submit list of incomplete items in the following format:

a. PDF electronic file. Architect, through Construction Manager, will return annotated file.

1.8 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Partial Occupancy: Submit properly executed warranties within fifteen (15) days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
1. General: Provide one (1) electronic copy and one (1) paper copy of warranties.
 2. Bind warranties and bonds in heavy-duty, three-ring, white vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 3. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 4. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 5. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

1.9 PROJECT CLOSEOUT CHECK LIST

- A. Requirements: Contractor must provide the following prior to the Architect and Construction Manager approving the release of final payment:
1. Verification that final punch list is complete.
 2. Final Affidavit.
 3. Consent of Surety.
 4. Final Lien Waiver.
 5. Affidavit of compliance with Prevailing Wage requirements.
 6. As-Built drawings applicable to this Contract.
 7. Operation and Maintenance Manuals applicable to this Contract.
 8. Current Insurance Certificate.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - d. Remove snow and ice to provide safe access to building, as applicable.
 - e. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g. Sweep concrete floors broom clean in unoccupied spaces.
 - h. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
 - i. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - j. Remove labels that are not permanent.
 - k. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - l. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - m. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - n. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
 - o. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
 - p. Leave Project clean and ready for occupancy.
- C. Pest Control: Comply with pest control requirements in Section 015000 "Temporary Facilities and Controls."
Prepare written report.
- D. Construction Waste Disposal: Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls."

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
 - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
 - 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 - 4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 017700

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Product maintenance manuals.
 - 5. Systems and equipment maintenance manuals.
- B. Related Requirements:
 - 1. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.

1.2 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.3 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Architect and Commissioning Authority, as applicable, will comment on whether content of operations and maintenance submittals are acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. General: Provide one (1) pdf electronic file and one (1) paper copy as follows:
 - a. PDF electronic file: Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
 - 1) Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
 - 2) Enable inserted reviewer comments on draft submittals.
 - b. Paper copy: Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Architect, through Construction Manager, will transmit paper copy to Owner upon acceptance.
- C. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least thirty (30) days before commencing demonstration and training. Architect and Commissioning Authority will return copy with comments.

1. Correct or revise each manual to comply with Architect's and, as applicable, Commissioning Authority's comments. Submit copies of each corrected manual within ten (10) days of receipt of Architect's and Commissioning Authority's comments and prior to commencing demonstration and training.

PART 2 PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information. Include a section in the directory for each of the following:
 1. List of documents.
 2. List of systems
 3. List of equipment.
 4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. General: Submit one (1) paper copy and one (1) copy in pdf electronic file format.
- B. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 1. Title page.
 2. Table of contents.
 3. Manual contents.
- C. Title Page: Include the following information:
 1. Subject matter included in manual.
 2. Name and address of Project.
 3. Name and address of Owner.

4. Date of submittal.
 5. Name and contact information for Contractor and Installer (if applicable).
 6. Name and contact information for Construction Manager.
 7. Name and contact information for Architect.
 8. Name and contact information for Commissioning Authority, as applicable.
 9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
 10. Cross-reference to related systems in other operation and maintenance manuals.
- D. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- E. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- F. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- G. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
1. Binders: Heavy-duty, three-ring, white vinyl-covered, post-type binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
 - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.

2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
4. Supplementary Text: Prepared on 8-1/2-by-11-inch white bond paper.
5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
 1. Type of emergency.
 2. Emergency instructions.
 3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 1. Fire.
 2. Flood.
 3. Flood.
 4. Gas leak.
 5. Water leak.
 6. Power failure.
 7. Water outage.
 8. System, subsystem, or equipment failure.
 9. Chemical release or spill.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
 1. Instructions on stopping.
 2. Shutdown instructions for each type of emergency.
 3. Operating instructions for conditions outside normal operating limits.
 4. Required sequences for electric or electronic systems.

5. Special operating instructions and procedures.

2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
 2. Performance and design criteria if Contractor has delegated design responsibility.
 3. Operating standards.
 4. Operating procedures.
 5. Operating logs.
 6. Wiring diagrams.
 7. Control diagrams.
 8. Piped system diagrams.
 9. Precautions against improper use.
 10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on Contract Documents.
 2. Manufacturer's name.
 3. Equipment identification with serial number of each component.
 4. Equipment function.
 5. Operating characteristics.
 6. Limiting conditions.
 7. Performance curves.
 8. Engineering data and tests.
 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
 2. Equipment or system break-in procedures.
 3. Routine and normal operating instructions.
 4. Regulation and control procedures.
 5. Instructions on stopping.
 6. Normal shutdown instructions.
 7. Seasonal and weekend operating instructions.

8. Required sequences for electric or electronic systems.
 9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Product Information: Include the following, as applicable:
1. Product name and model number.
 2. Manufacturer's name.
 3. Color, pattern, and texture.
 4. Material and chemical composition.
 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
1. Inspection procedures.
 2. Types of cleaning agents to be used and methods of cleaning.
 3. List of cleaning agents and methods of cleaning detrimental to product.
 4. Schedule for routine cleaning and maintenance.
 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
1. Include procedures to follow and required notifications for warranty claims.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.

- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
 - 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
 - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.

PART 3 EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 - 1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 - 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original project record documents as part of operation and maintenance manuals.
 - 2. Comply with requirements of newly prepared record Drawings in Section 017839 "Project Record Documents."
- G. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - 4. Miscellaneous record submittals.
- B. Related Requirements:
 - 1. Section 017300 "Execution" for final property survey.
 - 2. Section 017700 "Closeout Procedures" for general closeout procedures.
 - 3. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.2 CLOSEOUT SUBMITTALS

- A. General: Final Payment will not be made until Project Record Documents are submitted to, reviewed by and are acceptable to the Architect.
- B. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit copies of record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit one paper-copy set(s) of marked-up record prints.
 - 2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal:
 - 1) Submit PDF electronic files of scanned record prints and one (1) paper-copy set of marked-up record prints.
 - 2) Print each drawing, whether or not changes and additional information were recorded.
- C. Record Specifications: Comply with the following:
 - 1. Initial Submittal:
 - a. Submit one paper-copy set(s) of marked-up record specifications.
 - b. Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - 2. Final Submittal:
 - a. Submit PDF electronic files of scanned and marked-up record specifications.
- D. Record Product Data: Submit one (1) paper copy and one (1) annotated PDF electronic file and directory of each submittal.
 - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
- E. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit one (1) paper copy and

one (1) annotated PDF electronic file and directory of each submittal.

- F. Reports: Submit written report weekly, indicating items incorporated into project record documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one (1) set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - l. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files:

1. Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect and Construction Manager. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
 - a. Format: Annotated PDF electronic file with comment function enabled.
 - b. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
 - c. Refer instances of uncertainty to Architect through Construction Manager for resolution.
 - d. Architect will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.
 - 1) See Section 013300 "Submittal Procedures" for requirements related to use of Architect's digital data files.
 - 2) Architect will provide data file layer information. Record markups in separate layers.
- C. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Format: Annotated PDF electronic file with comment function enabled.
 3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Construction Manager.
 - e. Name of Architect.
 - f. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 5. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Refer to previous Article.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders and record Drawings where applicable.
- B. Format: Submit one (1) copy of record Product Data as scanned PDF electronic file(s) of marked-up paper copy of Product Data.
 - 1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as one PDF electronic file and a separate paper copy of marked-up miscellaneous record submittals].
 - 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's and Construction Manager's reference during normal working hours.

END OF SECTION 017839 017839

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
 - 3. Pre-Produced demonstration and training videos.

1.2 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
 - 1. Indicate proposed training modules using manufacturer-produced (pre-produced) demonstration and training video recordings for systems, equipment, and products.
- B. Qualifications: For Instructor.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.

1.3 CLOSEOUT SUBMITTALS

- A. Pre-Produced Demonstration and Training Video Recordings: Submit two (2) copies within seven days of end of training.
 - 1. Identification: On each copy, provide an applied label with the following information:
 - a. Name of Project.
 - b. Name of Architect.
 - c. Name of Construction Manager.
 - d. Name of Contractor.
 - e. Date of video recording.
 - f. Name and address of videographer.
 - 2. Transcript: Prepared in PDF electronic format. Include a cover sheet with same label information as the corresponding video recording and a table of contents with links to corresponding training components. Include name of Project and date of video recording on each page.
 - 3. At completion of training, submit complete training manual(s) for Owner's use. One copy shall be prepared and bound in format matching operation and maintenance manuals, and the second copy shall be in PDF electronic file format on compact disc.

1.4 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in

training or education with a record of successful learning performance.

- B. Videographer Qualifications: A professional videographer who is experienced photographing demonstration and training events similar to those required.
- C. Pre-instruction Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to demonstration and training including, but not limited to, the following:
 - 1. Inspect and discuss locations and other facilities required for instruction.
 - 2. Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.
 - 3. Review required content of instruction.
 - 4. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

1.5 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

PART 2 PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 - 2. Documentation: Review the following items in detail:

- a. Emergency manuals.
 - b. Operations manuals.
 - c. Maintenance manuals.
 - d. Project record documents.
 - e. Identification systems.
 - f. Warranties and bonds.
 - g. Maintenance service agreements and similar continuing commitments.
3. Emergencies: Include the following, as applicable:
- a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
4. Operations: Include the following, as applicable:
- a. Startup and shutdown procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Control sequences.
 - f. Safety procedures.
 - g. Instructions on stopping.
 - h. Normal shutdown instructions.
 - i. Operating procedures for emergencies.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - l. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures.
5. Adjustments: Include the following:
- a. Alignments.
 - b. Checking adjustments.
 - c. Noise and vibration adjustments.
 - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
- a. Diagnostic instructions.
 - b. Test and inspection procedures.
7. Maintenance: Include the following:
- a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
8. Repairs: Include the following:
- a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

PART 3 EXECUTION

3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module.

Assemble training modules into a training manual organized in coordination with requirements in Section 017823

"Operation and Maintenance Data."

- B. Set up instructional equipment at instruction location.

3.2 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. Coordinate with Owner for number of participants, instruction times and location.
 - 2. Describe system design, operational requirements, criteria and regulatory requirements.
 - 3. Owner will furnish Contractor with names and positions of participants.
 - a. Owner will have in attendance a participant to describe Owner's operational philosophy.
- C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with Owner, through Construction Manager, with at least seven (7) days' advance notice.
- D. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- E. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

3.3 DEMONSTRATION AND TRAINING VIDEO RECORDINGS

- A. Pre-Produced Video Recordings. Video recordings may be used as a component of each training module. Upon completion of training, furnish to Owner one (1) copy of each video used for training.

END OF SECTION 017900

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected site elements.

B. Related Requirements:

1. Section 011000 "Summary" for restrictions on use of the premises, Owner-occupancy requirements, and phasing requirements.
2. Section 017300 "Execution" for cutting and patching procedures.
3. Section 311000 "Site Clearing" for site clearing and removal of above- and below-grade improvements not part of selective demolition.

1.2 DEFINITIONS

- A. Remove:** Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.
- B. Remove and Reinstall:** Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.
- C. Dismantle:** To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

1.3 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1. Owner will retain "first right of refusal" for all demolished items.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.4 PREINSTALLATION MEETINGS

A. Predemolition Conference: Conduct conference at Project site.

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
3. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.

4. Review areas where existing construction is to remain and requires protection.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For refrigerant recovery technician.
- B. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.
- C. Schedule of Selective Demolition Activities: Indicate the following:
 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 3. Coordination for shutoff, capping, and continuation of utility services.
- D. Predemolition Photographs or Video: Show existing conditions of adjoining construction, including finish surfaces, that might be misconstrued as damage caused by demolition operations.
 1. Comply with Section 013233 "Photographic Documentation." Submit before Work begins.

1.6 CLOSEOUT SUBMITTALS

- A. Inventory: Submit a list of items that have been removed and salvaged.
 1. Prior to commencement of demolition, representatives of the Owner and the Contractor will inspect the project areas where work will be conducted, and designate items to be salvaged. Items to be salvaged shall be identified by tagging/labeling and listed on the inventory.

1.7 FIELD CONDITIONS

- A. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- B. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
 2. Contractor and Owner's forces shall each conduct work according to all applicable OSHA and EPA regulations.
- C. Storage or sale of removed items or materials on-site is not permitted.
- D. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 1. Maintain fire-protection facilities in service during selective demolition operations.

1.8 COORDINATION

- A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.
- C. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or video.
 - 1. Comply with requirements specified in Section 013233 "Photographic Documentation."
 - 2. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
 - 1. Comply with requirements for existing services/systems interruptions specified in Division 01 Section "Summary"
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. Arrange to shut off utilities with utility companies.
 - 3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 4. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
 - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.

- e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
- f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
- g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material and leave in place.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Section 015000 "Temporary Facilities and Controls."

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals using power-driven saw, and then remove concrete between saw cuts.
- B. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.
- C. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, and then break up and remove.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations.

Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavating and filling for rough grading the Site.
2. Preparing subgrades for slabs-on-grade, walks, pavements, turf and grasses, and plants.
3. Excavating and backfilling for buildings and structures.
4. Drainage course for concrete slabs-on-grade.
5. Subbase course for concrete walks and pavements.
6. Subbase course and base course for asphalt paving.
7. Excavating and backfilling trenches for utilities and pits for buried utility structures.

1.2 DEFINITIONS

A. Backfill: Soil used to fill an excavation.

1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.

C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.

F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, will be without additional compensation.

G. Fill: Soil materials used to raise existing grades.

H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other fabricated stationary features constructed above or below the ground surface.

I. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.

J. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.

K. Utilities: On-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.

1.3 FIELD CONDITIONS

A. Utility Locator Service: Notify utility locator service for area where Project is located before beginning earth-moving operations.

B. Do not commence earth-moving operations until plant-protection measures specified in Section 015639 "Temporary Tree and Plant Protection" are in place.

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth-moving operations.

B. Protect and maintain erosion and sedimentation controls during earth-moving operations.

C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.3 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
 - 2. Pile Foundations: Stop excavations 6 to 12 inches above bottom of pile cap before piles are placed. After piles have been driven, remove loose and displaced material. Excavate to final grade, leaving solid base to receive concrete pile caps.
 - 3. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch. Do not disturb bottom of excavations intended as bearing surfaces.
- B. Excavations at Edges of Tree- and Plant-Protection Zones:
 - 1. Excavate by hand or with an air spade to indicated lines, cross sections, elevations, and subgrades. If excavating by hand, use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
 - 2. Cut and protect roots according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.4 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.5 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.

- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
 - 1. Clearance: 12 inches each side of pipe or conduit.
- C. Trench Bottoms:
 - 1. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.
- D. Trenches in Tree- and Plant-Protection Zones:
 - 1. Hand-excavate to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
 - 2. Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities.
 - 3. Cut and protect roots according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.6 SUBGRADE INSPECTION

- A. Proof-roll subgrade below the building slabs and pavements with a pneumatic-tired dump truck to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
- B. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

3.7 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by Architect.
 - 1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect.

3.8 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.9 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 1. Construction below finish grade.
 2. Surveying locations of underground utilities for Record Documents.
 3. Testing and inspecting underground utilities.
 4. Removing concrete formwork.
 5. Removing trash and debris.
 6. Removing temporary shoring, bracing, and sheeting.
 7. Installing permanent or temporary horizontal bracing on horizontally supported walls.
- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.10 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- C. Trenches under Footings: Backfill trenches excavated under footings and within 18 inches of bottom of footings with satisfactory soil; fill with concrete to elevation of bottom of footings. Concrete is specified in Section 033000 "Cast-in-Place Concrete."
- D. Trenches under Roadways: Provide 4-inch thick, concrete-base slab support for piping or conduit less than 24 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase course. Concrete is specified in Section 033000 "Cast-in-Place Concrete."
- E. Initial Backfill: Place and compact initial backfill of satisfactory soil, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit.
 1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.
- F. Final Backfill: Place and compact final backfill of satisfactory soil to final subgrade elevation.

3.11 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
 - 1. Under grass and planted areas, use satisfactory soil material.
 - 2. Under walks and pavements, use satisfactory soil material.
 - 3. Under steps and ramps, use engineered fill.
 - 4. Under building slabs, use engineered fill.
 - 5. Under footings and foundations, use engineered fill.

3.12 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.13 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D698 or ASTM D1557:
 - 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
 - 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
 - 3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
 - 4. For utility trenches, compact each layer of initial and final backfill soil material at 95 percent.

3.14 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:
 - 1. Turf or Unpaved Areas: Plus or minus 1 inch.
 - 2. Walks: Plus or minus 1/2 inch.
 - 3. Pavements: Plus or minus 1/2 inch.
- C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.15 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.16 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 312000

SECTION 321373 - CONCRETE PAVING JOINT SEALANTS

PART 1 - GENERAL

PART 2 - PRODUCTS

2.1 JOINT SEALANTS, GENERAL

- A. Compatibility: Provide joint sealants, backer materials, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Cleaning of Joints: Before installing joint sealants, clean out joints immediately to comply with joint-sealant manufacturer's written instructions.

3.2 INSTALLATION OF JOINT SEALANTS

- A. Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated unless more stringent requirements apply.
- B. Joint-Sealant Installation Standard: Comply with recommendations in ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions.
- C. Install joint-sealant backers to support joint sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of joint-sealant backer materials.
 - 2. Do not stretch, twist, puncture, or tear joint-sealant backer materials.
 - 3. Remove absorbent joint-sealant backer materials that have become wet before sealant application and replace them with dry materials.
- D. Install joint sealants immediately following backer material installation, using proven techniques that comply with the following:
 - 1. Place joint sealants so they fully contact joint substrates.
 - 2. Completely fill recesses in each joint configuration.

3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Non sag Joint Sealants: Immediately after joint-sealant application and before skinning or curing begins, tool sealants in accordance with the following requirements to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint:
 1. Remove excess joint sealant from surfaces adjacent to joints.
 2. Use tooling agents that are approved in writing by joint-sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - F. Provide joint configuration to comply with joint-sealant manufacturer's written instructions unless otherwise indicated.
 - G. Clean off excess joint sealant as the Work progresses, by methods and with cleaning materials approved in writing by joint-sealant manufacturers.

END OF SECTION 321373

SECTION 334600 - SUBDRAINAGE

PART 1 - GENERAL

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces and areas for suitable conditions where subdrainage systems are to be installed.
- B. If subdrainage is required for landscaping, locate and mark existing utilities, underground structures, and aboveground obstructions before beginning installation and avoid disruption and damage of services.
- C. Verify that drainage panels installed as part of foundation wall waterproofing is properly positioned to drain into subdrainage system.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 EARTHWORK

- A. Excavating, trenching, and backfilling are specified in Section 312000 "Earth Moving."

3.3 FOUNDATION DRAINAGE INSTALLATION

- A. Place impervious fill material on subgrade adjacent to bottom of footing after concrete footing forms have been removed. Place and compact impervious fill to dimensions indicated, but not less than 6 inches deep and 12 inches wide.
- B. Lay flat-style geotextile filter fabric in trench and overlap trench sides.
- C. Place supporting layer of drainage course over compacted subgrade and geotextile filter fabric, to compacted depth of not less than 4 inches.
- D. Encase pipe with sock-style geotextile filter fabric before installing pipe. Connect sock sections with adhesive or tape.
- E. Install drainage piping as indicated in Part 3 "Piping Installation" Article for foundation subdrainage.

- F. Add drainage course to width of at least 6 inches on side away from wall and to top of pipe to perform tests.
- G. After satisfactory testing, cover drainage piping to width of at least 6 inches on side away from footing and above top of pipe to within 12 inches of finish grade.
- H. Install drainage course and wrap top of drainage course with flat-style geotextile filter fabric.
- I. Place layer of flat-style geotextile filter fabric over top of drainage course, overlapping edges at least 4 inches.
- J. Install drainage panels on foundation walls as follows:
 - 1. Coordinate placement with other drainage materials.
 - 2. Lay perforated drainage pipe at base of footing. Install as indicated in Part 3 "Piping Installation" Article.
 - 3. Separate 4 inches of fabric at beginning of roll and cut away 4 inches of core. Wrap fabric around end of remaining core.
 - 4. Attach panels to wall beginning at subdrainage pipe. Place and secure molded-sheet drainage panels, with geotextile facing away from wall.
- K. Place backfill material over compacted drainage course. Place material in loose-depth layers not exceeding 6 inches. Thoroughly compact each layer. Final backfill to finish elevations and slope away from building.

3.4 UNDERSLAB DRAINAGE INSTALLATION

- A. Excavate for underslab drainage system after subgrade material has been compacted but before drainage course has been placed. Include horizontal distance of at least 6 inches between drainage pipe and trench walls. Grade bottom of trench excavations to required slope, and compact to firm, solid bed for drainage system.
- B. Lay flat-style geotextile filter fabric in trench and overlap trench sides.
- C. Place supporting layer of drainage course over compacted subgrade and geotextile filter fabric, to compacted depth of not less than 4 inches.
- D. Encase pipe with sock-style geotextile filter fabric before installing pipe. Connect sock sections with adhesive or tape.
- E. Install drainage piping as indicated in Part 3 "Piping Installation" Article for underslab subdrainage.
- F. Add drainage course to width of at least 6 inches on side away from wall and to top of pipe to perform tests.
- G. After satisfactory testing, cover drainage piping with drainage course to elevation of bottom of slab, and compact and wrap top of drainage course with flat-style geotextile filter fabric.

- H. Install horizontal drainage panels as follows:
 - 1. Coordinate placement with other drainage materials.
 - 2. Lay perforated drainage pipe at inside edge of footing.
 - 3. Place drainage panel over drainage pipe with core side up. Peel back fabric and wrap fabric around pipe. Locate top of core at bottom elevation of floor slab.
 - 4. Butt additional panels against other installed panels. If panels have plastic flanges, overlap installed panel with flange.

3.5 RETAINING-WALL DRAINAGE INSTALLATION

- A. Lay flat-style geotextile filter fabric in trench and overlap trench sides.
- B. Place supporting layer of drainage course over compacted subgrade to compacted depth of not less than 4 inches.
- C. Encase pipe with sock-style geotextile filter fabric before installing pipe. Connect sock sections with adhesive or tape.
- D. Install drainage piping as indicated in Part 3 "Piping Installation" Article for retaining-wall subdrainage.
- E. Add drainage course to width of at least 6 inches on side away from wall and to top of pipe to perform tests.
- F. After satisfactory testing, cover drainage piping to width of at least 6 inches on side away from footing and above top of pipe to within 12 inches of finish grade.
- G. Place drainage course in layers not exceeding 3 inches in loose depth; compact each layer placed and wrap top of drainage course with flat-style geotextile filter fabric.
- H. Place layer of [flat-style geotextile filter fabric] [waterproofing felt] over top of drainage course, overlapping edges at least 4 inches.
- I. Install drainage panels on wall as follows:
 - 1. Coordinate placement with other drainage materials.
 - 2. Lay perforated drainage pipe at base of footing as described elsewhere in this Specification. Do not install aggregate.
 - 3. If weep holes are used instead of drainage pipe, cut 1/2-inch- diameter holes on core side at weep-hole locations. Do not cut fabric.
 - 4. Mark horizontal chalk line on wall at a point 6 inches less than panel width above footing bottom. Before marking wall, subtract footing width.
 - 5. Separate 4 inches of fabric at beginning of roll and cut away 4 inches of core. Wrap fabric around end of remaining core.

6. Attach panel to wall at horizontal mark and at beginning of wall corner. Place core side of panel against wall. Use concrete nails with washers through product. Place nails from 2 to 6 inches below top of panel, approximately 48 inches apart.[Construction adhesives, metal stick pins, or double-sided tape may be used instead of nails.] Do not penetrate waterproofing. Before using adhesives, discuss with waterproofing manufacturer.
 7. If another panel is required on same row, cut away 4 inches of installed panel core and wrap fabric over new panel.
 8. If additional rows of panel are required, overlap lower panel with 4 inches of fabric.
 9. Cut panel as necessary to keep top 12 inches below finish grade.
 10. For inside corners, bend panel. For outside corners, cut core to provide 3 inches for overlap.
- J. Fill to Grade: Place satisfactory soil fill material over compacted drainage course. Place material in loose-depth layers not exceeding 6 inches. Thoroughly compact each layer. Fill to finish grade.

3.6 LANDSCAPING DRAINAGE INSTALLATION

- A. Provide trench width to allow installation of drainage conduit. Grade bottom of trench excavations to required slope, and compact to firm, solid bed for drainage system.
- B. Lay flat-style geotextile filter fabric in trench and overlap trench sides.
- C. Place supporting layer of drainage course over compacted subgrade and geotextile filter fabric, to compacted depth of not less than 4 inches.
- D. Install drainage conduits as indicated in Part 3 "Piping Installation" Article for landscaping subdrainage with horizontal distance of at least 6 inches between conduit and trench walls. Wrap drainage conduits without integral geotextile filter fabric with flat-style geotextile filter fabric before installation. Connect fabric sections with [adhesive] [or] [tape].
- E. Add drainage course to top of drainage conduits.
- F. After satisfactory testing, cover drainage conduit to within 12 inches of finish grade.
- G. Install drainage course and wrap top of drainage course with flat-style geotextile filter fabric.
- H. Place layer of flat-style geotextile filter fabric over top of drainage course, overlapping edges at least 4 inches.
- I. Fill to Grade: Place satisfactory soil fill material over drainage course. Place material in loose-depth layers not exceeding 6 inches. Thoroughly compact each layer. Fill to finish grade.

3.7 PIPING INSTALLATION

- A. Install piping beginning at low points of system, true to grades and alignment indicated, with unbroken continuity of invert. Bed piping with full bearing in filtering material. Install gaskets, seals, sleeves, and couplings in accordance with manufacturer's written instructions and other requirements indicated.
 - 1. Foundation Subdrainage: Install piping level and with a minimum cover of 36 inches unless otherwise indicated.
 - 2. Underslab Subdrainage: Install piping level.
 - 3. Plaza Deck Subdrainage: Install piping level.
 - 4. Retaining-Wall Subdrainage: When water discharges at end of wall into stormwater piping system, install piping level and with a minimum cover of 36 inches unless otherwise indicated.
 - 5. Landscaping Subdrainage: Install piping pitched down in direction of flow, at a minimum slope of percent and with a minimum cover of 36 inches unless otherwise indicated.
 - 6. Lay perforated pipe with perforations down.
 - 7. Excavate recesses in trench bottom for bell ends of pipe. Lay pipe with bells facing upslope and with spigot end entered fully into adjacent bell.
- B. Use increasers, reducers, and couplings made for different sizes or materials of pipes and fittings being connected. Reduction of pipe size in direction of flow is prohibited.
- C. Install thermoplastic piping in accordance with ASTM D2321.

3.8 PIPE JOINT CONSTRUCTION

- A. Join perforated PE pipe and fittings with couplings in accordance with ASTM D3212 with loose banded, coupled, or push-on joints.
- B. Join perforated PVC sewer pipe and fittings in accordance with ASTM D3212 with loose bell-and-spigot, push-on joints.
- C. Special Pipe Couplings: Join piping made of different materials and dimensions with special couplings made for this application. Use couplings that are compatible with and fit materials and dimensions of both pipes.

3.9 BACKWATER VALVE INSTALLATION

- A. Comply with requirements for backwater valves specified in Section 334100 "Storm Utility Drainage Piping."
- B. Install horizontal backwater valves in header piping downstream from perforated subdrainage piping.
- C. Install horizontal backwater valves in piping where indicated.

3.10 CLEANOUT INSTALLATION

- A. Comply with requirements for cleanouts specified in Section 334100 "Storm Utility Drainage Piping."
- B. Cleanouts for Foundation, Retaining-Wall, and Landscaping Subdrainage:
 - 1. Install cleanouts from piping to grade. Locate cleanouts at beginning of piping run and at changes in direction. Install fittings so cleanouts open in direction of flow in piping.
 - 2. In vehicular-traffic areas, use NPS 4 cast-iron soil pipe and fittings for piping branch fittings and riser extensions to cleanout. Set cleanout frames and covers in a cast-in-place concrete anchor, 18 by 18 by 12 inches deep. Set top of cleanout flush with grade.
 - 3. In nonvehicular-traffic areas, use NPS 4 PVC pipe and fittings for piping branch fittings and riser extensions to cleanout. Set cleanout frames and covers in a cast-in-place concrete anchor, 12 by 12 by 4 inches deep. Set top of cleanout 2 inches above grade.
 - 4. Comply with requirements for concrete specified in Section 033000 "Cast-in-Place Concrete."
- C. Cleanouts for Underslab Subdrainage:
 - 1. Install cleanouts and riser extensions from piping to top of slab. Locate cleanouts at beginning of piping run and at changes in direction. Install fittings so cleanouts open in direction of flow in piping.
 - 2. Use NPS 4 cast-iron soil pipe and fittings for piping branch fittings and riser extensions to cleanout flush with top of slab.

3.11 CONNECTIONS

- A. Comply with requirements for piping specified in Section 334100 "Storm Utility Drainage Piping." Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Connect low elevations of subdrainage system to building's solid-wall-piping storm drainage system.
- C. Where required, connect low elevations of foundation subdrainage to stormwater sump pumps. Comply with requirements for sump pumps specified in Section 221429 "Sump Pumps."

3.12 IDENTIFICATION

- A. Arrange for installation of green warning tapes directly over piping. Comply with requirements for underground warning tapes specified in specified in Section 312000 "Earth Moving."
 - 1. Install PE warning tape or detectable warning tape over ferrous piping.

2. Install detectable warning tape over nonferrous piping and over edges of underground structures.

3.13 CLEANING

- A. Clear interior of installed piping and structures of dirt and other superfluous material as work progresses. Maintain swab or drag in piping and pull past each joint as it is completed. Place plugs in ends of uncompleted pipe at end of each day or when work stops.

END OF SECTION 334600

