

Issued for Bid: November 1, 2023

# PROJECT MANUAL

VOLUME 01 OF 04 : DIVISIONS 00-01

## Pawling Central School District 2020 Capital Project - Phase 3

Pawling Elementary School:

SED No. 13-12-01-04-0-001-024

CSArch Project No. 208-2101.03



The design of this project conforms to applicable provisions of the New York State Uniform Fire Prevention and Building Code, the New York State Energy Conservation Construction Code, and the Manual of Planning Standards of the New York State Education Department

CSARCH



DOCUMENT 000011 - CERTIFICATION PAGE

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PROFESSIONAL SEAL

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Thomas M. Ritzenthaler, AIA, Principal-in-Charge

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Jamie Barrett, PE



MECHANICAL / PLUMBING ENGINEER

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Zachary Malison, PE



CIVIL ENGINEERING / LANDSCAPE ARCHITECT

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FX: 607.277.4004  
Michael Herzog



HAZARDOUS MATERIALS DESIGNER

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FX: 845.298.6251



STRUCTURAL ENGINEER

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FX: 518.452.3783



END OF SECTION 000011

It is a violation of the New York State Education Law for any person, unless he is acting under the direction of a licensed Architect, to alter an item on this document in any way.

# QuES&T

Quality Environmental Solutions & Technologies, Inc.

September 7, 2022

University of the State of New York  
The State Education Department  
Bureau of Facilities Planning  
Room 1060  
Education Building Annex  
Albany, New York 12234

**ATTN: Wendy Clark** , Project Manager

Re: Pawling Central School District –  
Pawling Elementary School Capital Improvements – Phase 3  
7 Haight Street  
Pawling, New York 12564  
SED # 13-12-01-04-0-001-024

C.S.I. Section 020800

Dear Ms. Clark,

The work of this project will involve removal of known Asbestos-containing Materials (ACM) and will be done in accordance with Industrial Code Rule #56 as amended 03/21/2007.

Thank you for your attention to this matter.

Sincerely,



Anthony Meluso, P.E.  
Project Designer  
Cert. #AH 94-03914

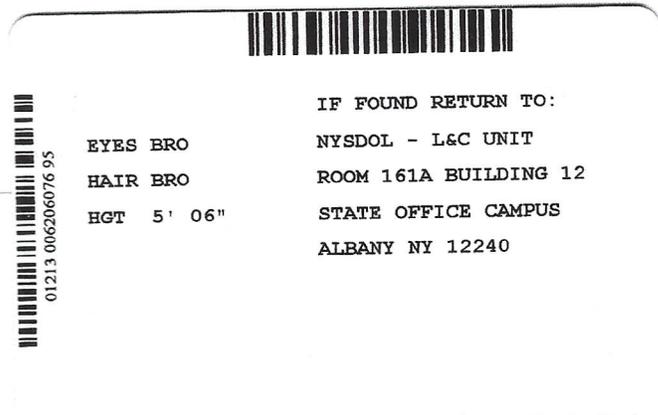
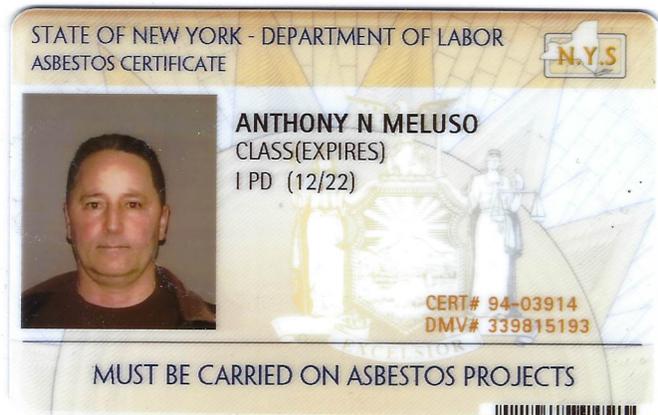


ANTHONY N MELUSO  
61 FERRIS LANE  
NEW PALTZ NY 12561

Enclosed is your new card.

**NYS Department of Labor**  
The Department of Labor is happy to provide this improved card. We welcome your comments:  
nysdol@labor.ny.gov or call (518) 457-2735

YOUR NEW CARD





12-006017472

This card acknowledges that the recipient has successfully completed:

**10-hour Construction Safety and Health**

This card issued to:

Anthony Meluso

David Veit

06/08/2016

Trainer Name

Date of Issue



732.235.9450  
aotc.sph.rutgers.edu

OSHA recommends Outreach Training Courses as an orientation to occupational safety and health for workers. Participation is voluntary. Workers must receive additional training on specific hazards of their job. This course completion card does not expire.

Use or distribution of this card for fraudulent purposes, including false claims of having received training, may result in prosecution under 18 U.S.C. 1001. Potential penalties include substantial criminal fines, imprisonment up to 5 years, or both.



To verify this training, scan the QR code with your mobile device.

Rev. 1/2016

## Office of the Professions

### Verification Searches

The information furnished at this web site is from the Office of Professions' official database and is updated daily, Monday through Friday. The Office of Professions considers this information to be a secure, primary source for license verification.

#### License Information \*

04/26/2021

**Name :** MELUSO ANTHONY N  
**Address :** NEW PALTZ NY  
**Profession :** PROFESSIONAL ENGINEERING  
**License No:** 067937  
**Date of Licensure :** 03/01/1991  
**Additional Qualification :**  
**Status:** REGISTERED  
**Registered through last day of :** 11/22

#### Certificate of Authorization to provide Professional Engineering Services in New York State :

YES CERT# 0017197 EXPIRES 03/23

\* Use of this online verification service signifies that you have read and agree to the [terms and conditions of use](#). See [HELP glossary](#) for further explanations of terms used on this page.

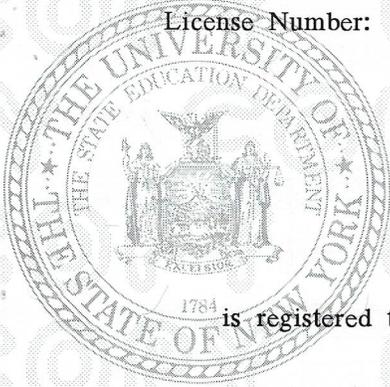
- Use your browser's back key to return to licensee list.
- You may [search](#) to see if there has been recent disciplinary action against this licensee.
- Note: The Board of Regents does not discipline *physicians(medicine)*, *physician assistants*, or *specialist assistants*. The status of individuals in these professions may be impacted by information provided by the NYS Department of Health. To search for the latest discipline actions against individuals in these professions, please check the New York State Department of Health's [Office of Professional Medical Conduct](#) homepage.



The University of the State of New York  
Education Department  
Office of the Professions  
**REGISTRATION CERTIFICATE**  
*Do not accept a copy of this certificate*

License Number: 067937-01

Certificate Number: 0717456



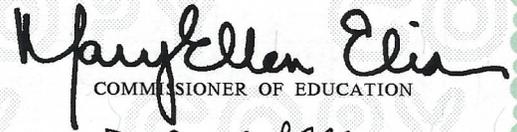
MELUSO ANTHONY N  
61 FERRIS LANE  
NEW PALTZ

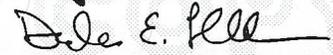
NY 12561-0000

is registered to practice in New York State through 11/30/2022 as a(n)  
**PROFESSIONAL ENGINEER**

LICENSEE/REGISTRANT

  
EXECUTIVE SECRETARY

  
COMMISSIONER OF EDUCATION

  
DEPUTY COMMISSIONER  
FOR THE PROFESSIONS

*This document is valid only if it has not expired, name and address are correct, it has not been tampered with and is an original - not a copy. To verify that this registration certificate is valid or for more information please visit [www.op.nysed.gov](http://www.op.nysed.gov).*

**New York State – Department of Labor**

Division of Safety and Health  
License and Certificate Unit  
State Campus, Building 12  
Albany, NY 12240

**ASBESTOS HANDLING LICENSE**

Quality Environmental Solutions & Technologies, Inc.

1376 Route 9

Wappinger Falls, NY 12590

FILE NUMBER: 99-0018

LICENSE NUMBER: 29085

LICENSE CLASS: RESTRICTED

DATE OF ISSUE: 01/21/2022

EXPIRATION DATE: 01/31/2023

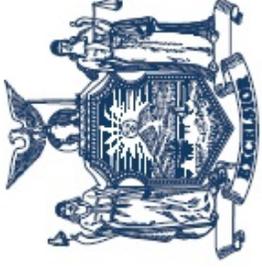
Duly Authorized Representative – Lawrence J Holzapfel:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.



Amy Phillips, Director  
For the Commissioner of Labor



# **NEW YORK STATE MINORITY- AND WOMEN-OWNED BUSINESS ENTERPRISE ("MWBE") CERTIFICATION**

Empire State Development's Division of Minority and Women's Business Development grants a  
**Women Business Enterprise (WBE)**  
pursuant to New York State Executive Law, Article 15-A to:

**Quality Environmental Solutions & Technologies Inc.**

Certification Awarded on: March 28, 2019  
Expiration Date: March 28, 2024  
File ID#: WBE- 49952





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**Appendix**

Appendix A GEOTECHNICAL EVALUATION – TECTONIC

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DOCUMENT 000115 - DRAWING INDEX

PART 1 – GENERAL

- A. DRAWING PROJECT TITLE: Pawling Central School District, 2020 Capital Project – Phase 3
- B. Issued for Bid Date: November 1, 2023
- C. This Drawing Index completes the Project Documents. Bidder shall verify receipt of all within the separately bound drawings.

LIST OF DRAWINGS

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"A113" "PARTIAL FIRST FLOOR PLAN - AREA '3'"  
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"A303" "WALL SECTIONS"  
"A304" "SECTION DETAILS"

"A305"	"SECTION DETAILS"
"A306"	"SECTION DETAILS"
"A351"	"PLAN DETAILS"
"A401"	"OVERALL ROOF PLAN"
"A450"	"ROOF DETAILS"
"A600"	"TYPICAL EQUIPMENT PLANS, ELEVATIONS, AND DETAILS"
"A601"	"ENLARGED PLANS - MAIN OFFICE / ENTRY / NURSE"
"A602"	"INTERIOR ELEVATIONS - MAIN OFFICE / ENTRY / NURSE"
"A603"	"ENLARGED PLANS - INDOOR RECESS / STORAGE"
"A604"	"INTERIOR ELEVATIONS - INDOOR RECESS / STORAGE"
"A605"	"ENLARGED PLANS - KITCHEN / SERVERY / CAFETERIA"
"A606"	"INTERIOR ELEVATIONS - KITCHEN / SERVERY / CAFETERIA"
"A607"	"ENLARGED PLANS - MUSIC / MAKER SPACE"
"A608"	"ENLARGED PLANS - LIBRARY"
"A609"	"ENLARGED PLANS - CONFERENCE ROOM"
"A610"	"ENLARGED PLANS - TOILET ROOMS"
"A611"	"INTERIOR ELEVATIONS - CORRIDORS"
"A650"	"CASEWORK DETAILS"
"A701"	"PARTITION TYPES"
"A801"	"PARTIAL LOWER LEVEL RCP - AREA '1'"
"A811"	"PARTIAL FIRST FLOOR RCP - AREA '1'"
"A812"	"PARTIAL FIRST FLOOR RCP - AREA '2'"
"A813"	"PARTIAL FIRST FLOOR RCP - AREA '3'"
"A814"	"PARTIAL FIRST FLOOR RCP - AREA '4'"
"A821"	"PARTIAL SECOND FLOOR RCP - AREA '1'"
"A850"	"CEILING DETAILS"
"A901"	"DOOR SCHEDULE AND DETAILS"
"A902"	"DOOR DETAILS"
"A920"	"WINDOW ELEVATIONS"
"A921"	"WINDOW DETAILS"

"ARCHITECTURAL FINISH DRAWINGS"

"AF001"	"MATERIALS SCHEDULE"
"AF002"	"ENLARGED PLANS AND DETAILS"
"AF101"	"PARTIAL LOWER LEVEL FINISH PLAN - AREA '1'"
"AF111"	"PARTIAL FIRST FLOOR FINISH PLAN - AREA '1'"
"AF112"	"PARTIAL FIRST FLOOR FINISH PLAN - AREA '2'"
"AF113"	"PARTIAL FIRST FLOOR FINISH PLAN - AREA '3'"
"AF114"	"PARTIAL FIRST FLOOR FINISH PLAN - AREA '4'"
"AF121"	"PARTIAL SECOND FLOOR FINISH PLAN - AREA '1'"
"AF122"	"SIGNAGE TYPES"

"FOOD SERVICE DRAWINGS"

"FS101"	"EXISTING PLAN"
"FS102"	"KITCHEN PLAN"
"FS103"	"KITCHEN PLUMBING PLAN"
"FS104"	"KITCHEN ELECTRICAL PLAN"
"FS105"	"EXHAUST HOOD DETAIL DRAWING"
"FS106"	"WALK-IN DETAIL DRAWING"
"FS107"	"REFRIGERATION DETAIL DRAWING"
"FS108"	"SERVING LINE DETAILS"
"FS109"	"SERVING LINE DETAILS"
"PIPING AND INSTRUMENTATION DIAGRAM GENERAL DRAWING"	
"DJ000"	"GENERAL NOTES, LEGENDS AND ABBREVIATIONS"
"PIPING AND INSTRUMENTATION DIAGRAM DRAWINGS"	
"DJ101"	"MECHANICAL PID"
"PLUMBING GENERAL DRAWING"	
"PG000"	"GENERAL NOTES, LEGENDS AND ABBREVIATIONS"
"PLUMBING DEMOLITION DRAWINGS"	
"PD101"	"GROUND FLOOR DEMOLITION PLAN - AREA '1'"
"PD102"	"CRAWL SPACE DEMOLITION PLAN - AREA '2'"
"PD104"	"CRAWL SPACE DEMOLITION PLAN - AREA '4'"
"PD111"	"FIRST FLOOR DEMOLITION PLAN - AREA '1'"
"PD112"	"FIRST FLOOR DEMOLITION PLAN - AREA '2'"
"PD113"	"FIRST FLOOR DEMOLITION PLAN - AREA '3'"
"PD114"	"FIRST FLOOR DEMOLITION PLAN - AREA '4'"
"PLUMBING DRAWINGS"	
"P101"	"GROUND FLOOR PLAN - AREA '1'"
"P102"	"CRAWL SPACE FLOOR PLAN - AREA '2'"
"P104"	"CRAWL SPACE PLAN - AREA '4'"
"P111"	"FIRST FLOOR PLAN - AREA '1'"
"P112"	"FIRST FLOOR PLAN - AREA '2'"
"P113"	"FIRST FLOOR PLAN - AREA '3'"
"P114"	"FIRST FLOOR PLAN - AREA '4'"
"P140"	"ROOF PLAN - AREA '2'"
"P601"	"DETAILS"
"P901"	"SCHEDULES AND DETAILS"
"MECHANICAL GENERAL DRAWING"	
"MG000"	"GENERAL NOTES, LEGENDS AND ABBREVIATIONS"

"MECHANICAL DEMOLITION DRAWINGS"

"MD101"	"GROUND FLOOR DEMOLITION PLAN - AREA '1'"
"MD111"	"FIRST FLOOR DEMOLITION PLAN - AREA '1'"
"MD112"	"FIRST FLOOR DEMOLITION PLAN - AREA '2'"
"MD113"	"FIRST FLOOR DEMOLITION PLAN - AREA '3'"
"MD114"	"FIRST FLOOR DEMOLITION PLAN - AREA '4'"
"MD121"	"SECOND FLOOR DEMOLITION PLAN - AREA '1'"
"MD131"	"ATTIC DEMOLITION PLAN AREA '1'"
"MD141"	"ROOF DEMOLITION PLAN AREA '1'"
"MD144"	"ROOF DEMOLITION PLAN AREA '4'"

"MECHANICAL DRAWINGS"

"M101"	"GROUND FLOOR PLAN - AREA '1'"
"M111"	"FIRST FLOOR PLAN - AREA '1'"
"M112"	"FIRST FLOOR PLAN - AREA '2'"
"M113"	"FIRST FLOOR PLAN - AREA '3'"
"M114"	"FIRST FLOOR PLAN - AREA '4'"
"M121"	"SECOND FLOOR PLAN - AREA '1'"
"M131"	"ATTIC PLAN - AREA '1'"
"M141"	"ROOF PLAN - AREA '1'"
"M142"	"ROOF PLAN - AREA '2'"
"M143"	"ROOF PLAN - AREA '3'"
"M144"	"ROOF PLAN - AREA '4'"
"M501"	"ATTIC ISOMETRIC RISER DIAGRAM"
"M601"	"DETAILS"
"M901"	"SCHEDULES"
"M902"	"VENTILATION SCHEDULE"

"ELECTRICAL GENERAL DRAWING"

"EG000"	"GENERAL NOTES, LEGENDS AND ABBREVIATIONS"
"ES000"	"SYSTEMS NOTES, LEGENDS AND ABBREVIATIONS"

"ELECTRICAL DEMOLITION DRAWINGS"

"ED101"	"GROUND FLOOR DEMOLITION PLAN - AREA '1'"
"ED111"	"FIRST FLOOR DEMOLITION PLAN - AREA '1'"
"ED112"	"FIRST FLOOR DEMOLITION PLAN - AREA '2'"
"ED113"	"FIRST FLOOR DEMOLITION PLAN - AREA '3'"
"ED114"	"FIRST FLOOR DEMOLITION PLAN - AREA '4'"
"ED121"	"SECOND FLOOR DEMOLITION PLAN - AREA '1'"
"ED131"	"ATTIC DEMOLITION PLAN - AREA '1'"
"ED141"	"ROOF DEMOLITION PLAN - AREA '1'"
"ED142"	"ROOF DEMOLITION PLAN - AREA '2'"
"ED144"	"ROOF DEMOLITION PLAN - AREA '4'"

"ED501"	"DEMOLITION RISER DIAGRAM"
"ELECTRICAL DRAWINGS"	
"E101"	"GROUND FLOOR PLAN - AREA '1'"
"E111"	"FIRST FLOOR PLAN - AREA '1'"
"E112"	"FIRST FLOOR PLAN - AREA '2'"
"E113"	"FIRST FLOOR PLAN - AREA '3'"
"E114"	"FIRST FLOOR PLAN - AREA '4'"
"E121"	"SECOND FLOOR PLAN - AREA '1'"
"E131"	"ATTIC PLAN - AREA '1'"
"E141"	"ROOF PLAN - AREA '1'"
"E142"	"ROOF PLAN - AREA '2'"
"E143"	"ROOF PLAN - AREA '3'"
"E144"	"ROOF PLAN - AREA '4'"
"E201"	"GROUND FLOOR LIGHTING PLAN - AREA '1'"
"E211"	"FIRST FLOOR LIGHTING PLAN - AREA '1'"
"E212"	"FIRST FLOOR LIGHTING PLAN - AREA '2'"
"E501"	"POWER RISER DIAGRAM"
"E601"	"DETAILS"
"E602"	"DETAILS"
"E901"	"REPLACEMENT PANELBOARD SCHEDULES"
"E902"	"SCHEDULES"
"E903"	"PANEL SCHEDULES"
"ES101"	"GROUND FLOOR SYSTEMS PLAN - AREA '1'"
"ES111"	"FIRST FLOOR SYSTEMS PLAN - AREA '1'"
"ES112"	"FIRST FLOOR SYSTEMS PLAN - AREA '2'"
"ES131"	"ATTIC SYSTEMS PLAN"
"ES141"	"ROOF SYSTEMS PLAN - AREA '1'"
"ES142"	"ROOF SYSTEMS PLAN - AREA '2'"
"ES143"	"ROOF SYSTEMS PLAN - AREA '3'"
"ES144"	"ROOF SYSTEMS PLAN - AREA '4'"

END OF DOCUMENT 000115

**DOCUMENT 001113 – ADVERTISEMENT FOR BIDS**

Architect  
CSArch  
19 Front Street  
Newburgh, NY 12550  
PH: 845-561-3179

Project Information  
Pawling Central School District  
515 Route 22  
Pawling, NY 12564  
2020 Capital Project-**Phase 3**

The Owner, Pawling Central School District, will receive sealed bids to furnish materials and labor to complete Additions and Renovations to the Elementary School. Each bid shall be on a stipulated sum basis for the following contracts:

Contract No. 31 GC - General Construction Work  
Contract No. 32 MC – Mechanical Construction Work  
Contract No. 33 EC – Electrical Construction Work  
Contract No. 34 PC – Plumbing Construction Work

One copy of sealed bids will be received until **2:00 PM** on **Tuesday, December 5<sup>th</sup> 2023**, at the **Pawling Central School District, District Office, 515 Route 22, Pawling New York 12564**. Bids received after this time will not be accepted and returned to Bidder unopened. Bids will be opened publicly and read aloud after specified receipt time. All interested parties are invited to attend.

Bidding Document drawings and specifications may be examined starting on 11/3/2023 free of charge at the following locations:

Pawling Central School District  
515 Route 22  
Pawling, NY 12564  
845-229-4000  
Note: Examination by appointment only.

CSArch  
19 Front Street  
Newburgh, New York 12550  
845-561-3179  
[www.csarchpc.com](http://www.csarchpc.com)  
Note: Examination by appointment only.

Northern New York Builders Exchange, Inc.  
22074 Fabco Road  
Watertown, NY 13601  
315-788-1330  
[www.mybe.com](http://www.mybe.com)

Eastern Contractors Association, Inc.  
6 Airline Drive  
Albany, NY 12205  
518-869-0961  
[www.ecainc.org](http://www.ecainc.org)

Syracuse Builders Exchange  
6563 Ridings Road

Dodge Lead Center

CSArch  
208-2101.03

Pawling Central School District  
2020 Capital Project – Phase 3

Syracuse, NY 13206  
315-437-9936  
[www.syrabex.com](http://www.syrabex.com)

Mohawk Valley Builders Exchange  
10 Main Street, Suite 202  
Whitesboro, NY 13492  
315-736-2441  
[www.mvbe.com](http://www.mvbe.com)

Construct Connect  
3825 Edwards Rd.  
Suite 800  
Cincinnati, OH 45209  
800-364-2059  
[www.ConstructConnect.com](http://www.ConstructConnect.com)

McGraw Hill Construction  
2 Penn Plaza, 9th Floor  
New York, NY 10121  
800-393-6343  
[www.dodgeprojects.construction.com](http://www.dodgeprojects.construction.com)

Works In Progress  
20 Farrell Street  
South Burlington, VT 05403  
800-286-3633  
[www.worksinprogress.com](http://www.worksinprogress.com)

It is the intention of this Project to be both environmentally and fiscally conscious of paper use and consumption. Therefore, documents will be distributed as digital sets. Bidding Documents, Drawings, and Specifications, may be viewed online free of charge at [www.csarchplanroom.com](http://www.csarchplanroom.com) or [revplans.biddyhq.com](http://revplans.biddyhq.com) under 'Public Projects', or electronically downloaded for a non-refundable charge of forty nine dollars **(\$49.00)**.

Complete sets of Bidding Documents, Drawings, and Specifications, on compact disc (CD) may be obtained from *Revplans / BiddyHQ, 28 Church Street, Suite #7, Warwick, NY 10990, Tel: 845-651-3845*, upon depositing the refundable sum of one hundred dollars (\$100.00) for each combined set of documents. Checks or money orders shall be made payable to the Pawling Central School District.

Each Bidder must deposit a Bid Security in the amount and form per the conditions provided in Instructions to Bidders. All Bids will remain subject to acceptance for forty-five (45) days after the Bid Opening. Owner may, in its sole discretion, release any Bid and return Bid Security prior to that date.

A Pre-Bid Conference will be held at **3:00 PM** on **November 15<sup>th</sup> 2023**, at the **Pawling Elementary School, 7 Haight Street, Pawling NY 12564**. Attendees are to gather at the Main Entrance to be escorted to the multi-purpose room. Attendance at this meeting is recommended as the Owner, Architect and consultants will be present to discuss the Project. Attendees should anticipate 30 minutes Q & A session. The Architect will transmit to all listed Bidders record of Addenda in response to questions arising at the Conference.

Bids shall not include New York State sales and compensating use taxes on materials and supplies incorporated into the Work, the Owner being exempt therefrom. The Bidders must comply with New York State Department of Labor Prevailing Wage Rate Schedule and conditions of employment.

*The bid qualification meetings will be scheduled the following day after the bid opening and the two (2) low bidders from each trade contract should be prepared to attend.*

The Pawling Central School District reserves the right to waive any informalities or irregularities in the Bids received, or to reject all Bids without explanation.

By Order Of: Pawling Central School District

END OF DOCUMENT 001113

CSArch  
208-2101.03

Pawling Central School District  
2020 Capital Project – Phase 3

DOCUMENT 002113 - INSTRUCTIONS TO BIDDERS

PART 1 – DEFINITIONS

- A. Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Invitation to Bid, Instruction to Bidders, the Bid Form, Supplementary Bid Forms and other sample bidding and contract forms.
- B. Contract Documents include the Contract Forms between the Owner and Contractor, Contractor's executed Bid Form and executed Supplementary Bid Forms, Conditions of the Contract (General, supplemental and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.
- C. Definitions set forth in the General Conditions of the Contract of Construction, or in other Contract Documents are applicable to the Bidding Documents.
- D. Addenda are written or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.
- E. A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.
  - 1. Wherever the word "Bid" occurs in the documents, it refers to Bidders Proposal.
- F. The Base Bid is an amount stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents.
- G. An Alternate is an amount stated on the Bid Form to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.
- H. A Unit Price is an amount stated on the Bid Form as a price per unit of measurement for materials, equipment for services or a portion of the Work as described in the Bidding Documents.
- I. A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

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

## PART 2 – BIDDER'S REPRESENTATIONS

- A. The Bidder by making a Bid represents that:
  1. The Bidder has read and understands the Bidding Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being Bid concurrently or presently under construction.
  2. The Bid is made in compliance with the Bidding Documents.
  3. The Bidder has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.
  4. The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.
- B. Each Bidder is required to form an individual opinion of the quantities and character of construction work by personal examination of the site and all existing facilities where the project work is to be done, and of the plans and specifications relating to it by such means as is preferred. Each Bidder shall inspect accessible concealed areas of existing construction, provided no significant permanent damage is inflicted upon the property. Lack of knowledge about conditions in accessible concealed areas shall not be the basis for additional cost claims at a later time.

## PART 3 – BIDDING DOCUMENTS

### 3.1 COPIES

- A. It is the intention of this Project to be both environmentally and fiscally conscious of paper use and consumption. Therefore, documents will be distributed as digital sets. Bidding Documents, Drawings, and Specifications, may be viewed online free of charge at [www.csarchplanroom.com](http://www.csarchplanroom.com) or [revplans.biddyhq.com](http://revplans.biddyhq.com) under 'Public Projects', or electronically downloaded for a non-refundable charge of forty nine dollars (\$49.00).
  1. Please note, in order to access online documents and information, a log in is required. New users can create a free online account upon visiting site by clicking 'Register for an Account'.

- B. Complete sets of Bidding Documents, Drawings, and Specifications, on compact disc (CD) may be obtained from *Revplans / BidbyHQ, 28 Church Street, Suite #7, Warwick, NY 10990, Tel: 845-651-3845*, upon depositing the sum of one hundred dollars (\$100.00) for each combined set of documents. Checks or money orders shall be made payable to **Pawling Central School District**.
  - 1. Deposit is refundable in accordance with the terms in the Instructions to Bidders to all submitting bids. Any bidder requiring CD(s) to be shipped shall make arrangements with the printer and pay for all packaging and shipping costs.
  - 2. Any bidder requiring paper copies of the Bidding Documents, Drawings, and Specifications, shall make arrangements with the printer, and pay for all printing, packaging, and shipping costs. Such costs are non-refundable.
- C. All bid addenda will be transmitted to registered plan holders via email and will be available at [www.csarchplanroom.com](http://www.csarchplanroom.com) and [www.usinglesspaper.com](http://www.usinglesspaper.com). or [www.csarchbids.com](http://www.csarchbids.com) . Plan holders who have paid for CD's or hard copies of the bid documents will need to make the determination if hard copies of the addenda are required for their use, and coordinate directly with the printer for hard copies of addenda to be issued.
  - 1. There will be no charge for registered plan holders to obtain hard copies of the bid addenda.
- B. Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- C. The Owner and Architect may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

### 3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

- A. The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being Bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered. All reports to the Architect shall be in writing.

- B. No interpretation of the meaning of the Contract Documents, the existing conditions, or of the scope of Work will be made verbally. Provide every request for such interpretation in writing, addressed to CSArch, Attention: Paul Nickerson, 40 Beaver Street, Albany, New York 12207, by e-mail: pnickerson@csarchpc.com, and to be given consideration must be received at least seven (7) working days prior to the date of the Bid Opening.
- C. Interpretations, corrections and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders are not required to rely upon them.
- D. The Bidding Documents for this project have been prepared using certain existing construction documents furnished by the Owner, which pertain to the construction of the existing conditions, and limited observations obtained by the Architect at the project site.
  - 1. More extensive investigations of existing conditions, including disassembly or testing of existing building components, was not undertaken by the Architect.
  - 2. Portrayal of such existing conditions obscured or concealed from the Owner or Architect's view prior to the start of this Project's construction activities, is based on reasonable implications and assumptions. The Owner and Architect do not imply or guarantee to the Bidders, in any way, that such portrayals are accurate or true existing conditions.

### 3.3 EQUIVALENTS

- A. Each Bidder shall base his Bid upon the materials and equipment described in the Bidding Documents to the fullest extent possible.
- B. In the specifications, two or more kinds, types, brands, or manufacturers or materials may be named. Unless noted otherwise they shall be regarded as the required standard of quality, and overall, are judged to be equivalent by the Architect. The Bidder may select one of these named items as the basis for his Bid or, if the Bidder desires to use any other kind, type, brand, or manufacturer or material other than those named in the specification, it shall indicate in writing, when requested, and prior to the award of the Contract, what kind, type, brand, or manufacturer is proposed in lieu of the named specified item(s).

### 3.4 ADDENDA

- A. Addenda will be transmitted to all that are known to have received a complete set of Bidding Documents.
  - 1. Provide Bidding Document distributor with full company name, address, telephone and facsimile numbers and contact person's name.
- B. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.
- C. Addenda will not be issued later than five (5) working days prior to the time specified for receipt of Bids, except any Addendum withdrawing the request for Bids or one which includes postponement of the time for receipt of Bids.
- D. Each Bidder shall ascertain upon submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt on the Bid Form.

### 3.5 TAX LIABILITY

- A. Bidders are exempt from payment of manufacturer's excise taxes for materials purchased for the exclusive use of the Owner, provided that manufacturer has complied with rules and regulation of the Commissioner of Internal Revenue Service.
- B. New York State Sales Tax does not apply to this project. Contractors are exempt from payment on purchase of materials for the execution of this Contract and such taxes shall not be included in Bids. Exemption Certificates will be provided upon request.
- C. All other taxes shall be included in the Bid.

### 3.6 PRE-BID CONFERENCE

- A. There will be a Pre-bid Conference as detailed in the Invitation to Bidders. A lack of representation at the Pre-bid Conference will not be justification for additional costs due to unforeseen conditions during the construction phases of the Contracts.

## PART 4 – BIDDING PROCEDURES

### 4.1 PREPARATION OF BIDS

- A. Bids shall be submitted on forms identical to the Bid Forms contained in this Project Manual, or submitted using unaltered and legible copies thereof.
- B. All blanks on the Bid Form shall be legible and executed in a non-erasable medium.
- C. Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in word shall govern.
- D. Interlineations, alterations and erasures must be initialed by the signer of the Bid.
- E. Bid all requested alternates. If no change in the Base Bid is required, enter "No Change."
- F. Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. The Bidder shall provide evidence of legal authority to perform within the jurisdiction of the Work. Each Bid copy shall be signed by the person or persons legally authorized to bind the Bidder to a Contract. A Bid by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

#### 4.2 BID SECURITY

- A. Each Bid must be accompanied by a certified bank check of the Bidder, or a Bid Bond prepared by a surety company licensed in New York State.
  - 1. Bid Security shall be provided in the amount of five (5) percent of the dollar amount of the Base Bid.
  - 2. Bid Security shall be payable to Pawling Central School District.
  - 3. If certified check is utilized, the Bidder shall provide written confirmation from a licensed New York State Surety company that Performance and Payment Bonds will be available to said Bidder for this project.
  - 4. The apparent successful Bidders, upon failure or refusal to furnish the required Performance and Payment Bonds and execute a Contract within ten (10) calendar days after receipt of notice of the acceptance of Bid, shall forfeit the Bid Security as liquidated damages for such failure to refusal, and not as a penalty.
  - 5. The successful Bidders shall have the Bid Security returned upon execution of an Owner/Contractor Agreement.
  - 6. Unsuccessful Bidders shall have their Bid Security returned following the execution of the Owner/Contractor Agreements or the forty five (45) day period following the Bid Opening, whichever occurs first.

7. The Bid Security shall not be forfeited to the Owner in the event the Owner fails to comply with subparagraph 6.2.
- B. Surety Bond shall be written on AIA Document A310, Bid Bond, and the attorney-in-fact that executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.
- C. The Owner will have the right to retain the Bid Security of Bidders to whom an award is being considered until either:
  1. The Contract has been executed and bonds, when required, have been furnished, or;
  2. The specified time has elapsed so that Bids may be withdrawn or;
  3. All Bids have been rejected.

#### 4.3 SUBMISSION OF BIDS

- A. All copies of the Bid, the Bid Security, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address and, if applicable, the designated Contract for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.
  1. If Bidder submits for different Contracts, each shall be submitted individually and so labeled for that Contract.
- B. Bids shall be deposited at the designated location prior to the time and date indicated in the Invitation to Bidders for the receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.
  1. The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.
  2. Oral, telephonic, telegraphic, facsimile or other electronically transmitted Bids will not be considered.
- C. Bids not exhibiting original signatures or seals will not be accepted as a responsive Bid.
- D. Bids shall be submitted as a single copy. Executed forms required for each submitted Bid are as follows:
  1. Bid Form.

2. Resolution.
3. Non-Collusive Bid Certification.
4. Bid Security.

#### 4.4 MODIFICATION OR WITHDRAWAL OF BID

- A. A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid. No Bidder may withdraw a Bid within the forty-five (45) day period following the time of the Bid Opening.
- B. Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date and time-stamped by the receiving party on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.
- C. Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.

### PART 5 – CONSIDERATION OF BIDS

#### 5.1 OPENING OF BIDS

- A. The properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders.

#### 5.2 REJECTION OF BIDS

- A. The Owner shall maintain the right to reject any or all Bids. A Bid not accompanied by the required Bid Security or by other data required by the Bidding Documents, or which is in any way incomplete or irregular may be subject to rejection.

#### 5.3 AWARD OF BID

- A. It is the intent of the Owner to award Contracts to the lowest qualified Bidder provided the Bid has been submitted in accordance with the requirements of the

Bidding Documents and does not exceed the funds available. The Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's own best interest.

- B. The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

## PART 6 – SUPPLEMENTARY BID FORMS

### 6.1 SUBMITTALS

- A. Within three (3) calendar days following the Bid Opening time, the apparent lowest Bidder, shall furnish to the Owner through the Architect the following information:
  - 1. Draft Schedule of Values (cost breakdown)
  - 2. Proposed Subcontractor List
  - 3. Proposed Substitution List
  - 4. Itemized list of Work to be self-performed
  - 5. Proposed Project Manager & Superintendent resumes
  - 6. Contractor's Qualification Statement, 004513 - AIA Document 305
- B. The Bidder will be required to establish to the satisfaction of the Owner and Construction Manager the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.
- C. Upon request only, the apparent second and third low Bidders shall be prepared to submit the information of paragraphs 6.1 and 6.3.A.
- D. Prior to the execution of the Contract, the Construction Manager will notify the Bidder in writing if either the Owner, Architect/Engineer or Construction Manager, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Construction Manager has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, (1) withdraw the Bid or (2) submit an acceptable substitute person or entity. In the event of withdrawal or disqualification, Bid Security will not be forfeited.
- E. Persons and entities proposed by the Bidder and to whom the Owner and Construction Manager have made no reasonable objection must be used on the

Work for whom they were proposed and shall not be changed except with the written consent of the Owner and Construction Manager.

- F. Any Bidder, upon failure to submit the information required in subparagraphs 6.1.A, 6.3.A, and 6.3.B in the allowed time, may have the Bid rejected. In that event, the Bidder shall forfeit the Bid Security to the Owner as liquidated damages for such failure or refusal, and not as penalty.

## 6.2 BOND REQUIREMENTS

- A. The Owner requires the apparent successful Bidder to furnish and deliver bonds, covering the faithful performance of the Contract Work and payment of all obligations arising thereunder duly executed by the Bidder and a surety company licensed to do business in New York State rating.
- B. The premiums shall be included in the Bid and paid by the Contractor. The Bidder shall proportionally distribute the costs of such bonds between the Base Bid and any Alternates.

## 6.3 TIME OF DELIVERY AND FORM OF BONDS

- A. The Bidder shall deliver the required bonds to the Owner through the Construction Manager on or before the time of execution of the Owner/Contractor Agreement. Bonds shall be payable to Pawling Central School District.
- B. Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond, Version 2010. Both bonds shall be written in the amount of the Contract Sum.
- C. The bonds shall be dated the same as the Owner/Contractor Agreement.
- D. 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.

## PART 7 – AGREEMENT FORM BETWEEN OWNER AND CONTRACTOR

- A. The form of agreement between Owner and Contractor shall be based on an amended Standard Form of Agreement between Owner and Contractor where the basis of payment is a Stipulated Sum, Owner/Contractor Agreement, CM as Adviser – AIA Document A132.

END OF DOCUMENT 002113



## SECTION 003113 - CONSTRUCTION SCHEDULE

### PART 1 – GENERAL

#### 1.1 PROJECT SCHEDULE

- A. This document with its respective attachment(s) are part of Procurement and Contracting Requirements for the Project. They provide Owner's information for Bidder's convenience and are intended to supplement rather than serve in lieu of Bidder's own investigations.

#### 1.2 RELATED DOCUMENTS

- A. All Contract Documents, including but not limited to, General Conditions of the Contract for Construction apply to this Section.
- B. Refer specifically to Division 01 Sections "Submittals" and "Construction Progress Documentation" for administrative requirements.

#### 1.3 SUMMARY

- A. This Section includes Project Milestone Schedule for the Project duration.
- B. The Project Milestone Schedule shall be used by each Prime Contract to reference start and completion dates, and their respective durations, for each activity and/or listed within each Phased work area of the Project.
- C. Refer to schedule and/or sequencing plans enclosed at end of this section, and/or within drawing set.

#### 1.4 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 activities are activities on the critical path. They must start and finish on the planned early start and finish times.
  - 2. Predecessor activity is an activity that must be completed before a given activity can be started.
- B. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall Project duration.

- C. Event: The starting or ending point of an activity.
- D. Milestone: A key or critical point in time for reference or measurement.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

- A. Refer to the Construction Sequence Narrative (Milestone Schedule) at the end of this Section.
- B. Refer to the Construction Sequence Plans at the end of this Section.

END OF SECTION 003113

# Pawling ES – Phase 3 Sequence Plan (Milestone Schedule)

## Sequence 1 - Spring 2024 (March through June 2<sup>nd</sup> Shift)

- Begin renovation work to create the new library space from 3/4 to 5/29 2024. Proposed HVAC system should be fully functional upon completion of this space.
- Move Library space from existing to new 5/30 & 5/31 2024 **by others**.
- Begin above ceiling domestic water & glycol piping in Area 2&4 from 3/4 to 6/28 2024.

## Sequence 1A - Spring 2024 (June to August)

- Renovation of existing library space into new main office on 2<sup>nd</sup> shift from 6/3 to 6/28.
- Complete new main office renovation on regular shift from 7/1 to 8/23 2024. Proposed HVAC system should be fully functional upon completion of this space.
- Move into new main office 8/26 to 8/30 2024 **by others**.

## Sequence 2 - Summer 2024 (7/1/24 to 8/30/24 Regular Shift)

- HVAC & related renovation work in Areas 2 & 4 (12 classrooms) inclusive of above ceiling piping. Existing UV & FTR will remain in place until new HVAC system is 100% functional in summer 2025.
- Domestic water line connections from new overhead piping to sinks & bathrooms.
- Renovate toilet rooms 101 to 104, 112, 122, 166 & 167 (8 bathrooms).
- Replace Transformer, vault & Secondary feeders to building inclusive of cabling and temporary measures to power “select” proposed panels.
- Complete ALL exterior (Civil) scope of work.
- Build proposed entrance Canopy (Base bid) / Security vestibule (Alternate #2).
- HVAC & related renovation work in proposed rooms 158 & 151 from 8/5 to 8/28 2024. Existing UV & FTR will remain in place and new duct penetrations up to 2<sup>nd</sup> floor will occur summer 2025.
- Associated roof work for **ALL** penetrations in Areas 2, 3 & 4. Includes abatement, structural support framing, penetration(s), and temporary measures over proposed equipment curbs. This will allow work on the roof to continue during the school year with no impact on daily program. Existing infills need to be coordinated with new work and may need to be done during the summer of 2025.
- Alternate #1B & 1D Window replacements in Areas 2 & 4.
- **\*\*Rooms will need to be turned over in an order to allow owner to wax floors and place furniture prior to 8/30/24.\*\***

## Sequence 3 - Fall / Winter 2024 (School Year)

- HVAC & related renovation work in proposed rooms 154 & 155 from 9/3 to 9/30 2024. Existing UV & FTR will remain in place and new duct penetrations up to 2<sup>nd</sup> floor will occur summer 2025.

# Pawling ES – Phase 3 Sequence Plan (Milestone Schedule)

- Alternate #3 – new kitchen & kitchen storage space from 9/30/24 to 1/3/25. It is not expected that this space is ready for use in February 2025. Underground Sanitary in lower level would be completed Summer 2025.
- Renovate existing 135, 135b, c, d, & e to new Staff & central conference 135/135B from 10/1 to 11/29 2024. Proposed HVAC system should be fully functional upon completion of this space.
- Install Rooftop equipment & duct work on roof for Areas 2, 3 & 4 Fall 2024.

## **Sequence 4 – Winter / Spring 2025 (School Year)**

- HVAC & related renovation work in Areas 2 & 3 (12 classrooms) from 1/6 to 6/20 2025. Existing UV & FTR will remain in place until new HVAC system is 100% functional in summer 2025. This work would be done 1 room at a time with a duration of 2 weeks per room.
- Install Rooftop equipment & duct work on roof for Areas 2, 3 & 4 Spring 2025.

## **Sequence 5 - Summer 2025 (6/30/25 to 8/29/25)**

- Area 1 HVAC work including balance of 1<sup>st</sup> floor, all 2<sup>nd</sup> floor & equipment in the attic (11+ rooms)
- Alternate #1A & #1C Window replacements in Area 1 & 3 (all levels).
- Any remaining frame, door & hardware replacements for classrooms, offices, vestibules etc.
- Renovate toilet rooms 123, 131 & 133 & Convert boys locker room shower to bathrooms 147 A&B.
- Replace Electrical switchgear and associated connections to new and existing panels from 6/30 to 7/18 2025.
- Commission all installed equipment and begin removing existing UV's and install FTR or scheduled work as indicated on the documents beginning 6/30/25 through 8/22/25.
- Alternate #3 – complete work in B19 & B20 (existing cafeteria & kitchen). The intent is for the new kitchen to be fully functional and the indoor recess area to be complete prior to the start of school.
- **\*\*Rooms will need to be turned over in an order to allow owner to wax floors and place furniture prior to 8/30/25.\*\***

## **Project is Substantially Complete by 8/30/25**

**Sequence 1 - Spring 2024 (March through June 2nd Shift)**

- Begin renovation work to create the new library space from 3/4 to 5/29 2024.
- Proposed HVAC system should be fully functional upon completion of this space.
- Move Library space from existing to new 5/30 & 5/31 2024 by others.
- Begin above ceiling domestic water & glycol piping in Area 2&4 from 3/4 to 6/28 2024.

**Sequence 1A - Spring 2024 (June to August)**

- Renovation of existing library space into new main office on 2nd shift from 6/3 to 6/28.
- Complete new main office renovation on regular shift from 7/1 to 8/23 2024.
- Proposed HVAC system should be fully functional upon completion of this space.
- Move into new main office 8/26 to 8/30 2024 by others.

**Sequence 2 - Summer 2024 (7/1/24 to 8/30/24 Regular Shift)**

- HVAC & related renovation work in Areas 2 & 4 (12 classrooms) inclusive of above ceiling piping. Existing UV & FTR will remain in place until new HVAC system is 100% functional in summer 2025.
  - Domestic water line connections from new overhead piping to sinks & bathrooms.
  - Renovate toilet rooms 101 to 104, 112, 122, 166 & 167 (8 bathrooms).
  - Replace Transformer, vault & Secondary feeders to building inclusive of cabling and temporary measures to power "select" proposed panels.
  - Complete ALL exterior (Civil) scope of work.
  - Build proposed entrance Canopy (Base bid) / Security vestibule (Alternate #2).
  - HVAC & related renovation work in proposed rooms 158 & 151 from 8/5 to 8/28 2024.
- Existing UV & FTR will remain in place and new duct penetrations up to 2nd floor will occur summer 2025.

**Sequence 2 - Summer 2024 (7/1/24 to 8/30/24 Regular Shift) CONTINUED**

- Associated roof work for ALL penetrations in Areas 2, 3 & 4. Includes abatement, structural support framing, penetration(s), and temporary measures over proposed equipment curbs. This will allow work on the roof to continue during the school year with no impact on daily program. Existing infills need to be coordinated with new work and may need to be done during the summer of 2025.
- Alternate #1B & 1D, window replacements in Areas 2 & 4.
- \*\*Rooms will need to be turned over in an order to allow owner to wax floors and place furniture prior to 8/30/24.\*\*

**Sequence 3 - Fall / Winter 2024 / 2025 (School Year)**

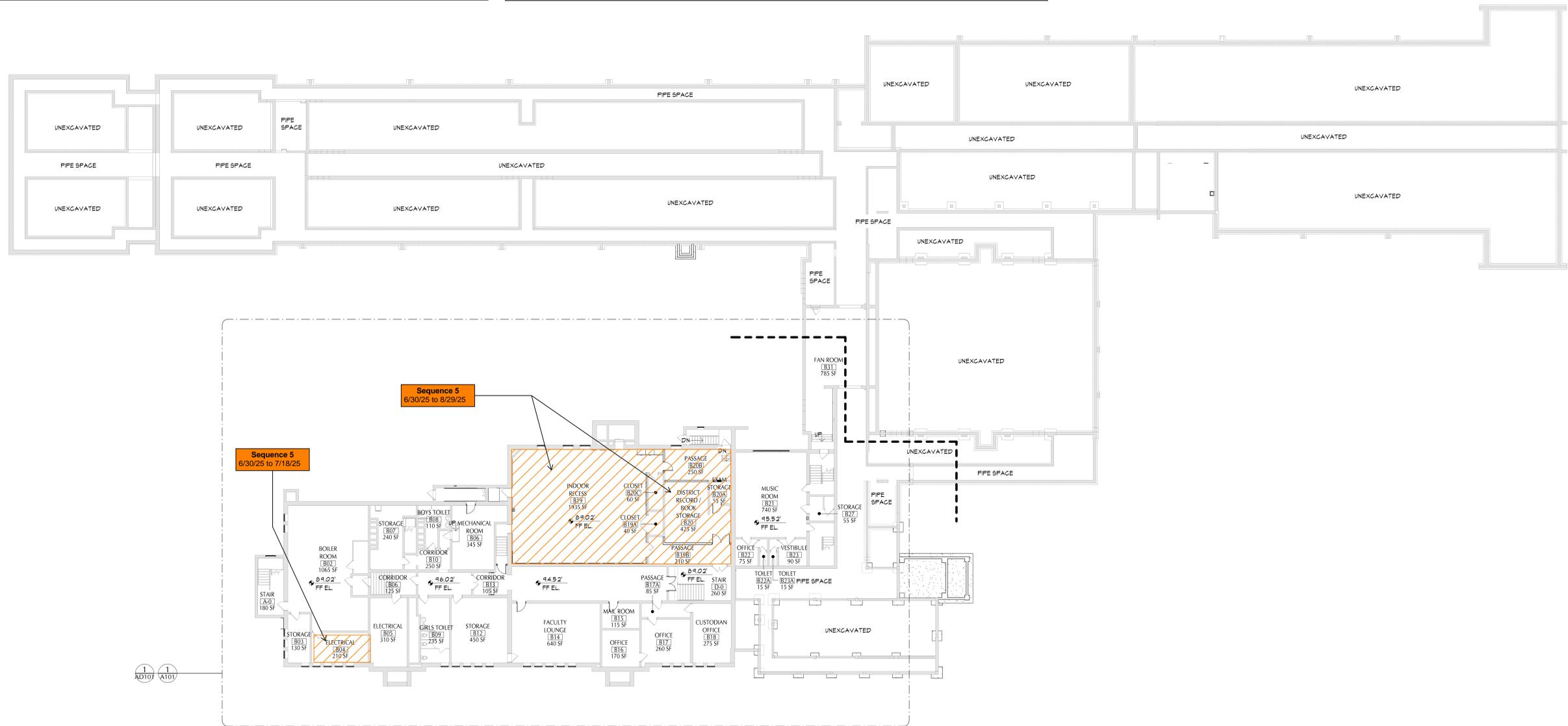
- HVAC & related renovation work in proposed rooms 154 & 155 from 9/3 to 9/27 2024. Existing UV & FTR will remain in place and new duct penetrations up to 2nd floor will occur summer 2025.
- Alternate #3 - new kitchen & kitchen storage space from 9/30/24 to 1/31/25. It is not expected that this space is ready for use in February 2025. Underground Sanitary in lower level would be completed Summer 2025.
- Renovate existing 135, 135b, c, d, & e to new Staff & central conference 135/135B from 10/1 to 11/29 2024. Proposed HVAC system should be fully functional upon completion of this space.
- Install Rooftop equipment & duct work on roof for Areas 2, 3 & 4 Fall 2024.

**Sequence 4 - Winter / Spring 2025 (School Year)**

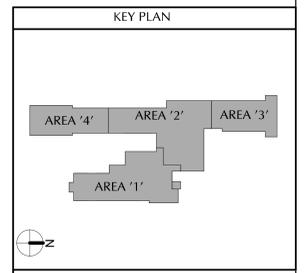
- HVAC & related renovation work in Areas 2 & 3 (12 classrooms) from 1/6 to 6/20 2025. Existing UV & FTR will remain in place until new HVAC system is 100% functional in summer 2025. This work would be done 1 room at a time with a duration of 2 weeks per room.
- Install Rooftop equipment & duct work on roof for Areas 2, 3 & 4 Spring 2025.

**Sequence 5 - Summer 2025 (6/30/25 to 8/29/25)**

- Area 1 HVAC work including balance of 1st floor, all 2nd floor & equipment in the attic (11+ rooms)
- Alternate #1A & #1C, window replacements in Area 1 & 3 (all levels).
- Any remaining frame, door & hardware replacements for classrooms, offices, vestibules etc.
- Renovate toilet rooms 123, 131 & 133 & Convert boys locker room shower to bathrooms 147 A&B.
- Replace Electrical switchgear and associated connections to new and existing panels from 6/30 to 7/18 2025.
- Commission all installed equipment and begin removing existing UV's and install FTR or scheduled work as indicated on the documents beginning 6/30/25 through 8/22/25.
- Alternate #3 - complete work in B19 & B20 (existing cafeteria & Kitchen). The intent is for the new kitchen to be fully functional and the indoor recess area to be complete prior to the start of school.
- \*\*Rooms will need to be turned over in an order to allow owner to wax floors and place furniture prior to 8/30/24.\*\*



**1** OVERALL LOWER LEVEL  
G100 1/16" = 1'-0"





**Sequence 1 - Spring 2024 (March through June 2nd Shift)**

- Begin renovation work to create the new library space from 3/4 to 5/29 2024. Proposed HVAC system should be fully functional upon completion of this space.
- Move Library space from existing to new 5/30 & 5/31 2024 by others.
- Begin above ceiling domestic water & glycol piping in Area 2&4 from 3/4 to 6/28 2024.

**Sequence 1A - Spring 2024 (June to August)**

- Renovation of existing library space into new main office on 2nd shift from 6/3 to 6/28.
- Complete new main office renovation on regular shift from 7/1 to 8/23 2024. Proposed HVAC system should be fully functional upon completion of this space.
- Move into new main office 8/26 to 8/30 2024 by others.

**Sequence 2 - Summer 2024 (7/1/24 to 8/30/24 Regular Shift)**

- HVAC & related renovation work in Areas 2 & 4 (12 classrooms) inclusive of above ceiling piping. Existing UV & FTR will remain in place until new HVAC system is 100% functional in summer 2025.
- Domestic water line connections from new overhead piping to sinks & bathrooms.
- Renovate toilet rooms 101, 104, 112, 122, 166 & 167 (8 bathrooms).
- Replace Transformer, vault & Secondary feeders to building inclusive of cabling and temporary measures to power "select" proposed panels.
- Complete ALL exterior (Civil) scope of work.
- Build proposed entrance Canopy (Base bid) / Security vestibule (Alternate #2).
- HVAC & related renovation work in proposed rooms 158 & 151 from 8/5 to 8/28 2024. Existing UV & FTR will remain in place and new duct penetrations up to 2nd floor will occur summer 2025.

**Sequence 2 - Summer 2024 (7/1/24 to 8/30/24 Regular Shift) CONTINUED**

- Associated roof work for ALL penetrations in Areas 2, 3 & 4. Includes abatement, structural support framing, penetration(s), and temporary measures over proposed equipment curbs. This will allow work on the roof to continue during the school year with no impact on daily program. Existing infills need to be coordinated with new work and may need to be done during the summer of 2025.
- Alternate #1B & 1D, window replacements in Areas 2 & 4.
- \*\*\*Rooms will need to be turned over in an order to allow owner to wax floors and place furniture prior to 8/30/24.\*\*\*

**Sequence 3 - Fall / Winter 2024 / 2025 (School Year)**

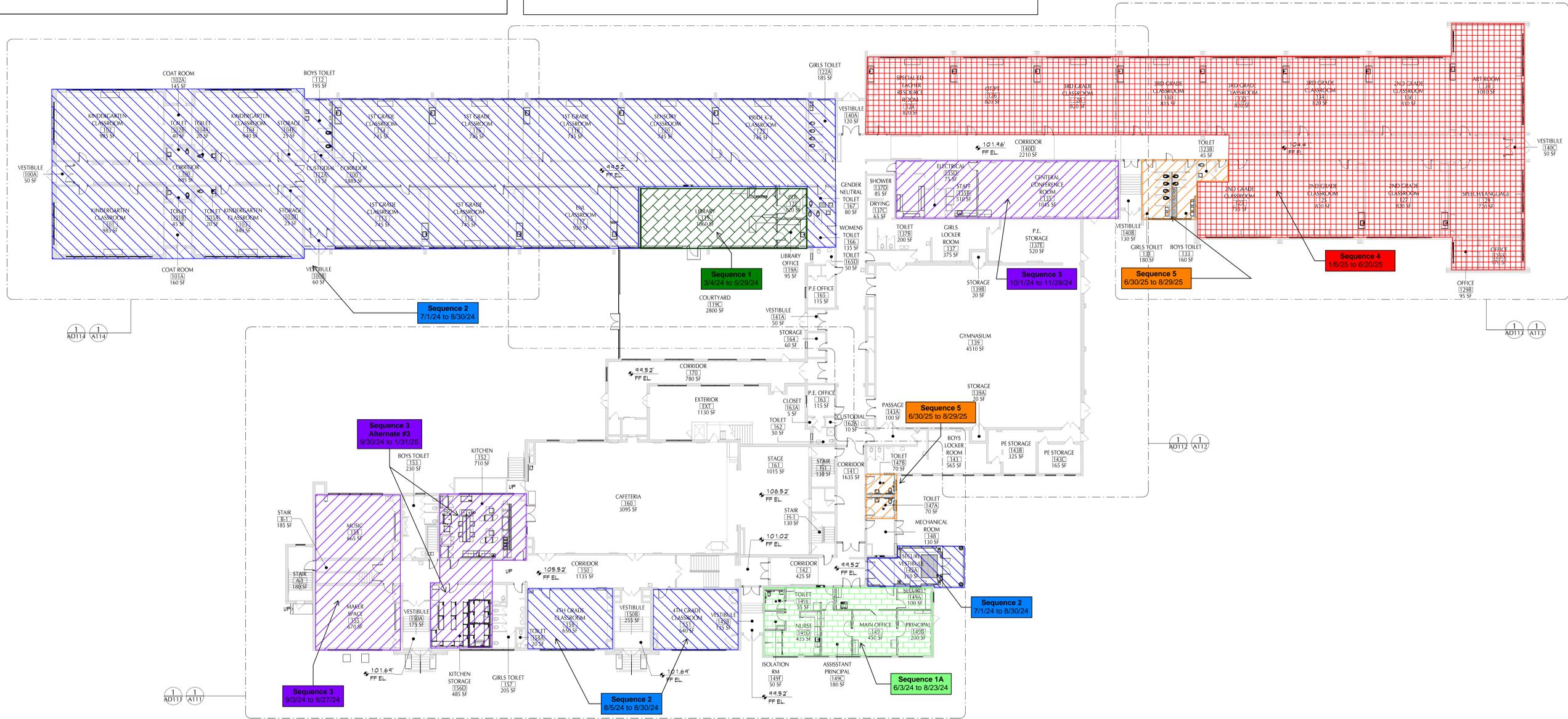
- HVAC & related renovation work in proposed rooms 154 & 155 from 9/3 to 9/27 2024. Existing UV & FTR will remain in place and new duct penetrations up to 2nd floor will occur summer 2025.
- Alternate #3 - new kitchen & kitchen storage space from 9/30/24 to 1/31/25. It is not expected that this space is ready for use in February 2025. Underground Sanitary in lower level would be completed Summer 2025.
- Renovate existing 135, 135b, c, d, & e to new Staff & central conference 135/135B from 10/1 to 11/29 2024. Proposed HVAC system should be fully functional upon completion of this space.
- Install Rooftop equipment & duct work on roof for Areas 2, 3 & 4 Fall 2024.

**Sequence 4 - Winter / Spring 2025 (School Year)**

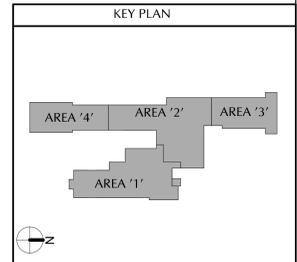
- HVAC & related renovation work in Areas 2 & 3 (12 classrooms) from 1/6 to 6/20 2025. Existing UV & FTR will remain in place until new HVAC system is 100% functional in summer 2025. This work would be done 1 room at a time with a duration of 2 weeks per room.
- Install Rooftop equipment & duct work on roof for Areas 2, 3 & 4 Spring 2025.

**Sequence 5 - Summer 2025 (6/30/25 to 8/29/25)**

- Area 1 HVAC work including balance of 1st floor, all 2nd floor & equipment in the attic (11+ rooms)
- Alternate #1A & #1C, window replacements in Area 1 & 3 (all levels).
- Any remaining frame, door & hardware replacements for classrooms, offices, vestibules etc.
- Renovate toilet rooms 123, 131 & 133 & Convert boys locker room shower to bathrooms 147 A&B.
- Replace Electrical switchgear and associated connections to new and existing panels from 6/30 to 7/18 2025.
- Commission all installed equipment and begin removing existing UV's and install FTR or scheduled work as indicated on the documents beginning 6/30/25 through 8/22/25.
- Alternate #3 - complete work in B19 & B20 (existing cafeteria & Kitchen). The intent is for the new kitchen to be fully functional and the indoor recess area to be complete prior to the start of school.
- \*\*\*Rooms will need to be turned over in an order to allow owner to wax floors and place furniture prior to 8/30/24.\*\*\*



**1 OVERALL FIRST FLOOR**  
G110 1/16" = 1'-0"





**Sequence 1 - Spring 2024 (March through June 2nd Shift)**

- Begin renovation work to create the new library space from 3/4 to 5/29 2024.
- Proposed HVAC system should be fully functional upon completion of this space.
- Move Library space from existing to new 5/30 & 5/31 2024 by others.
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**Sequence 1A - Spring 2024 (June to August)**

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- Complete new main office renovation on regular shift from 7/1 to 8/23 2024.
- Proposed HVAC system should be fully functional upon completion of this space.
- Move into new main office 8/26 to 8/30 2024 by others.

**Sequence 2 - Summer 2024 (7/1/24 to 8/30/24 Regular Shift)**

- HVAC & related renovation work in Areas 2 & 4 (12 classrooms) inclusive of above ceiling piping. Existing UV & FTR will remain in place until new HVAC system is 100% functional in summer 2025.
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- Renovate toilet rooms 101 to 104, 112, 122, 166 & 167 (8 bathrooms).
- Replace Transformer, vault & Secondary feeders to building inclusive of cabling and temporary measures to power "select" proposed panels.
- Complete ALL exterior (Civil) scope of work.
- Build proposed entrance Canopy (Base bid) / Security vestibule (Alternate #2).
- HVAC & related renovation work in proposed rooms 158 & 151 from 8/5 to 8/28 2024. Existing UV & FTR will remain in place and new duct penetrations up to 2nd floor will occur summer 2025.

**Sequence 2 - Summer 2024 (7/1/24 to 8/30/24 Regular Shift) CONTINUED**

- Associated roof work for ALL penetrations in Areas 2, 3 & 4. Includes abatement, structural support framing, penetration(s), and temporary measures over proposed equipment curbs. This will allow work on the roof to continue during the school year with no impact on daily program. Existing infills need to be coordinated with new work and may need to be done during the summer of 2025.
- Alternate #1B & 1D, window replacements in Areas 2 & 4.
- \*\*\*Rooms will need to be turned over in an order to allow owner to wax floors and place furniture prior to 8/30/24.\*\*

**Sequence 3 - Fall / Winter 2024 / 2025 (School Year)**

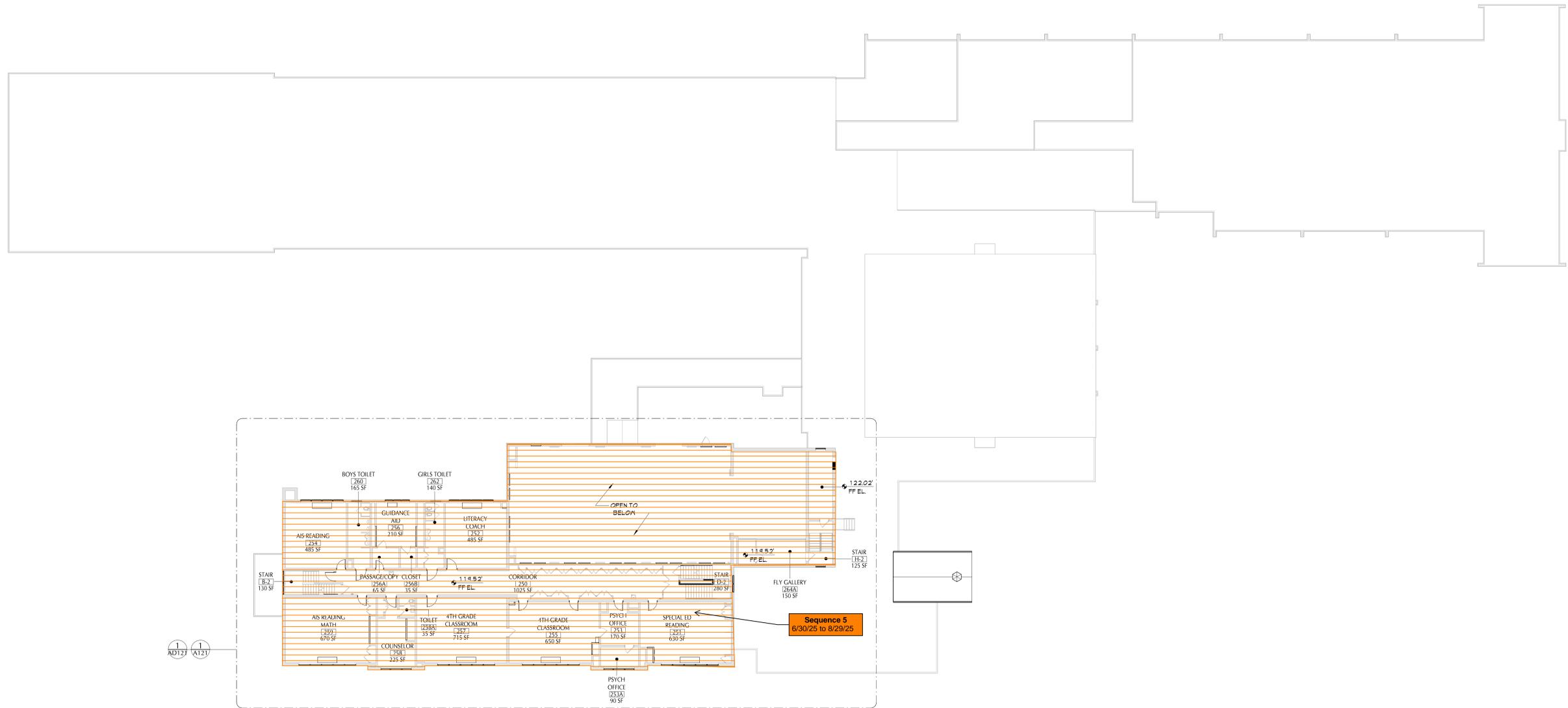
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- Alternate #3 - new kitchen & kitchen storage space from 9/30/24 to 1/31/25. It is not expected that this space is ready for use in February 2025. Underground Sanitary in lower level would be completed Summer 2025.
- Renovate existing 135, 135b, c, d, & e to new Staff & central conference 135/135B from 10/1 to 11/29 2024. Proposed HVAC system should be fully functional upon completion of this space.
- Install Rooftop equipment & duct work on roof for Areas 2, 3 & 4 Fall 2024.

**Sequence 4 - Winter / Spring 2025 (School Year)**

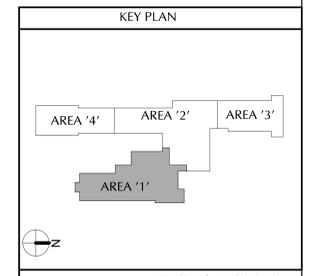
- HVAC & related renovation work in Areas 2 & 3 (12 classrooms) from 1/6 to 6/20 2025. Existing UV & FTR will remain in place until new HVAC system is 100% functional in summer 2025. This work would be done 1 room at a time with a duration of 2 weeks per room.
- Install Rooftop equipment & duct work on roof for Areas 2, 3 & 4 Spring 2025.

**Sequence 5 - Summer 2025 (6/30/25 to 8/29/25)**

- Area 1 HVAC work including balance of 1st floor, all 2nd floor & equipment in the attic (11+ rooms)
- Alternate #1A & #1C, window replacements in Area 1 & 3 (all levels).
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- \*\*\*Rooms will need to be turned over in an order to allow owner to wax floors and place furniture prior to 8/30/24.\*\*



**1 OVERALL SECOND FLOOR**  
G120 1/16" = 1'-0"



PAWLING CENTRAL SCHOOL DISTRICT  
PAWLING ELEMENTARY SCHOOL  
2020 CAPITAL PROJECT - PHASE 3

the Palombo Group

OVERALL SECOND FLOOR PLAN

CONSTRUCTION DOCUMENTS

40 Beaver St., Albany, New York 12207-1511  
518-483-8088 www.csarch.com

Consultant

Project Title

Sheet Title

CS ARCH



DOCUMENT 003119 - EXISTING CONDITION INFORMATION

1.1 EXISTING CONDITION INFORMATION

- A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of the Bidders' own investigations. They are made available for Bidders' convenience and information, but are not a warranty of existing conditions. This Document and its attachments are not part of the Contract Documents.
- B. Existing drawings that include information on existing conditions including previous construction at Project site are available for viewing at the office of Architect.
- C. Geotechnical Evaluation information that includes information on existing conditions is available for viewing as part of the Project Manual Appendix.

END OF DOCUMENT 003119



DOCUMENT 003126 - EXISTING HAZARDOUS MATERIAL INFORMATION

1.1 EXISTING HAZARDOUS MATERIAL INFORMATION

- A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of Bidders' own investigations. They are made available for Bidders' convenience and information, but are not a warranty of existing conditions. This Document and its attachments are not part of the Contract Documents.
- B. Asbestos reports for this project, are available for viewing at the engineer's office (QuES&T) by appointment.
- C. Related Requirements:
  - 1. Document 002113 "Instructions to Bidders" for the Bidder's responsibilities for examination of Project site and existing conditions.
  - 2. Section 024119 "Selective Demolition" for notification requirements if materials suspected of containing hazardous materials are encountered.

END OF DOCUMENT 003126



SECTION 004116.01 - BID FORM CONTRACT NO. 31 – GENERAL CONSTRUCTION

PAWLING CENTRAL SCHOOL DISTRICT

BIDDER INFORMATION

CONTACT: \_\_\_\_\_

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

TELEPHONE: (     ) \_\_\_\_\_

FACSIMILE: (     ) \_\_\_\_\_

E-MAIL: \_\_\_\_\_

BID TO (Owner):                      Attention:  
  
   Pawling Central School District  
   515 Route 22  
   Pawling, NY 12564  
   2020 Capital Project-Phase 3

PRIME CONTRACT:                      Contract No. 31

PROJECT TITLE:                        Pawling Central School District  
   2020 Capital Project-Phase 3

Pawling Elementary School:        SED No. 13-12-01-04-0-001-024

ARCHITECTS  
PROJECT NO.:                            208-2101.03

1. Representations: By making this Bid, the Bidder represents that:

The Bidder (identified above) hereby certifies that they have examined and fully understands the requirements and intent of the Bidding and Contract Documents, including Drawings, Project Manuals, and Addenda; and proposes to provide all labor, material, and equipment necessary to complete the Work on, or before, the dates specified in the Agreement for the Base Bid of:

2. Base Bid: \_\_\_\_\_  
(Words) (\$ \_\_\_\_\_ )  
(Figures)

In all locations sums shall be expressed in both words and figures. In case of discrepancy, written word governs.

3. Addenda: The Bidder acknowledges receipt of the following Addendum:

No. _____	Dated _____	No. _____	Dated _____
No. _____	Dated _____	No. _____	Dated _____
No. _____	Dated _____	No. _____	Dated _____

4. Alternates:

Alternate #1A: Add Replacement of Windows at area indicated on the drawing elevations.  
ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
(Words) (Figures)

Alternate #1B: Add Replacement of Windows at area indicated on the drawing elevations.  
ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
(Words) (Figures)

Alternate #1C: Add Replacement of Windows at area indicated on the drawing elevations.  
ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
(Words) (Figures)

Alternate #1D: Add Replacement of Windows at area indicated on the drawing elevations.  
ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_)  
(Words) (Figures)

Alternate #2: Add Vestibule addition construction instead of base-bid canopy at building entrance.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_)  
(Words) (Figures)

Alternate #3: Add Kitchen / Cafeteria renovation construction.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_)  
(Words) (Figures)

Alternate #4: Add Central Conference renovation construction.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_)  
(Words) (Figures)

5. Unit Costs: Not applicable to this contract.
6. Bid Security: Attached hereto is Bid Security in the form of (circle correct form) Bid Bond, Certified Check, Cash in the amount of 5 percent of the written Base Bid amount.
7. Allowances: The Bidder affirms that all allowances listed in the Bidding Documents have been included in the Base Bid and include the overhead and profit for said Allowance.
8. Time of Commencement and Completion: The Bidder agrees to commence Work on the stipulated starting date(s) and will substantially complete the Work in accordance with the project schedule stipulated in Specification Section 01 12 50 – Summary of Work.
9. Rejection of Bids: The Bidder acknowledges that the Owner reserves the right to waive any informality in, or to reject any or all Bids.
10. Execution of Contract: If notice of the acceptance of this Bid is mailed, telegraphed, or otherwise delivered to the undersigned within forty-five (45) days after the date of the Bid

Opening, or any time thereafter, the undersigned will, within ten (10) working days after the receipt of the form of Agreement, execute and deliver the Contract.

11. Site Visit: By initialing at the end of this paragraph the Bidder acknowledges visiting the project Site as requested by the Bidding Documents.

\_\_\_\_\_  
(Name-Printed) (Initials)

12. Signature: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name – Printed)

\_\_\_\_\_  
(Title – Printed) (Date)

13. Attachments: As itemized in the "Instructions to Bidders" for a complete Bid Form include the following:

- a. Bid Form.
- b. Resolution.
- c. Non-Collusive Bid Certification.
- d. Bid Security.
- e. Iran Divestment Act Certificate.

14. Supplementary Bid Information: If apparent lowest Bidder upon Bid Opening, submit in accordance with the "Instruction To Bidders" within 3 working days the following:

- a. Contractor Statement of Qualifications – AIA Document A305.
- b. Subcontractor List.
- c. Proposed Equivalent List.
- d. Schedule of Values.
- e. Project Manager Resume.
- f. Qualification Statement.
- g. List of Materials and Equipment.

END OF SECTION 004116.01

SECTION 004116.02 - BID FORM CONTRACT NO. 32 – MECHANICAL CONSTRUCTION

PAWLING CENTRAL SCHOOL DISTRICT

BIDDER INFORMATION

CONTACT: \_\_\_\_\_

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

TELEPHONE: (     ) \_\_\_\_\_

FACSIMILE: (     ) \_\_\_\_\_

E-MAIL: \_\_\_\_\_

BID TO (Owner):                      Attention:

Pawling Central School District  
515 Route 22  
Pawling, NY 12564  
2020 Capital Project-Phase 3

PRIME CONTRACT:                      Contract No. 32

PROJECT TITLE:                      Pawling Central School District  
2020 Capital Project-Phase 3

Pawling Elementary School:        SED No. 13-12-01-04-0-001-024

ARCHITECTS  
PROJECT NO.:                      208-2101.03

1. Representations: By making this Bid, the Bidder represents that:

The Bidder (identified above) hereby certifies that they have examined and fully understands the requirements and intent of the Bidding and Contract Documents, including Drawings, Project Manuals, and Addenda; and proposes to provide all labor, material, and equipment necessary to complete the Work on, or before, the dates specified in the Agreement for the Base Bid of:

2. Base Bid: \_\_\_\_\_  
*(Words)*  
\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Figures)*

In all locations sums shall be expressed in both words and figures. In case of discrepancy, written word governs.

3. Addenda: The Bidder acknowledges receipt of the following Addendum:

No. _____	Dated _____	No. _____	Dated _____
No. _____	Dated _____	No. _____	Dated _____
No. _____	Dated _____	No. _____	Dated _____

4. Alternates:

Alternate #2: Add Vestibule addition construction instead of base-bid canopy at building entrance.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Words)* *(Figures)*

Alternate #3: Add Kitchen / Cafeteria renovation construction.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Words)* *(Figures)*

Alternate #4: Add Central Conference renovation construction.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Words)* *(Figures)*

Alternate #5: Add / Deduct cost for providing specific Basis-of-Design HVAC Equipment scheduled on drawing PES M901, instead of acceptable equivalents.

ADD / (-DEDUCT) to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_)  
*(Words)* *(Figures)*

5. Unit Costs: Not applicable to this contract.
6. Bid Security: Attached hereto is Bid Security in the form of (circle correct form) Bid Bond, Certified Check, Cash in the amount of 5 percent of the written Base Bid amount.
7. Allowances: The Bidder affirms that all allowances listed in the Bidding Documents have been included in the Base Bid and include the overhead and profit for said Allowance.
8. Time of Commencement and Completion: The Bidder agrees to commence Work on the stipulated starting date(s) and will substantially complete the Work in accordance with the project schedule stipulated in Specification Section 01 12 50 – Summary of Work.
9. Rejection of Bids: The Bidder acknowledges that the Owner reserves the right to waive any informality in, or to reject any or all Bids.
10. Execution of Contract: If notice of the acceptance of this Bid is mailed, telegraphed, or otherwise delivered to the undersigned within forty-five (45) days after the date of the Bid Opening, or any time thereafter, the undersigned will, within ten (10) working days after the receipt of the form of Agreement, execute and deliver the Contract.
11. Site Visit: By initialing at the end of this paragraph the Bidder acknowledges visiting the project Site as requested by the Bidding Documents.

\_\_\_\_\_  
(Name-Printed)

\_\_\_\_\_  
(Initials)

12. Signature:

\_\_\_\_\_  
*(Signature)*

\_\_\_\_\_  
*(Name – Printed)*

\_\_\_\_\_  
*(Title – Printed)*

\_\_\_\_\_  
*(Date)*

13. Attachments: As itemized in the "Instructions to Bidders" for a complete Bid Form include the following:
  - a. Bid Form.
  - b. Resolution.
  - c. Non-Collusive Bid Certification.
  - d. Bid Security.
  - e. Iran Divestment Act Certificate.
  
14. Supplementary Bid Information: If apparent lowest Bidder upon Bid Opening, submit in accordance with the "Instruction To Bidders" within 3 working days the following:
  - a. Contractor Statement of Qualifications – AIA Document A305.
  - b. Subcontractor List.
  - c. Proposed Equivalent List.
  - d. Schedule of Values.
  - e. Project Manager Resume.
  - f. Qualification Statement.
  - g. List of Materials and Equipment.

END OF SECTION 004116.02

SECTION 004116.03 - BID FORM CONTRACT NO. 33 – ELECTRICAL CONSTRUCTION

PAWLING CENTRAL SCHOOL DISTRICT

BIDDER INFORMATION

CONTACT: \_\_\_\_\_

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

TELEPHONE: (     ) \_\_\_\_\_

FACSIMILE: (     ) \_\_\_\_\_

E-MAIL: \_\_\_\_\_

BID TO (Owner):                      Attention:  
  
   Pawling Central School District  
   515 Route 22  
   Pawling, NY 12564  
   2020 Capital Project-Phase 3

PRIME CONTRACT:                      Contract No. 33

PROJECT TITLE:                         Pawling Central School District  
   2020 Capital Project-Phase 3

Pawling Elementary School:         SED No. 13-12-01-04-0-001-024

ARCHITECTS  
PROJECT NO.:                             208-2101.03

1. Representations: By making this Bid, the Bidder represents that:

The Bidder (identified above) hereby certifies that they have examined and fully understands the requirements and intent of the Bidding and Contract Documents, including Drawings, Project Manuals, and Addenda; and proposes to provide all labor, material, and equipment necessary to complete the Work on, or before, the dates specified in the Agreement for the Base Bid of:

2. Base Bid: \_\_\_\_\_  
*(Words)*  
\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Figures)*

In all locations sums shall be expressed in both words and figures. In case of discrepancy, written word governs.

3. Addenda: The Bidder acknowledges receipt of the following Addendum:

No. _____	Dated _____	No. _____	Dated _____
No. _____	Dated _____	No. _____	Dated _____
No. _____	Dated _____	No. _____	Dated _____

4. Alternates:

Alternate #2: Add Vestibule addition construction instead of base-bid canopy at building entrance.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Words)* *(Figures)*

Alternate #3: Add Kitchen / Cafeteria renovation construction.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Words)* *(Figures)*

Alternate #4: Add Central Conference renovation construction.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Words)* *(Figures)*

5. Unit Costs: Not applicable to this contract.
6. Bid Security: Attached hereto is Bid Security in the form of (circle correct form) Bid Bond, Certified Check, Cash in the amount of 5 percent of the written Base Bid amount.
7. Allowances: The Bidder affirms that all allowances listed in the Bidding Documents have been included in the Base Bid and include the overhead and profit for said Allowance.
8. Time of Commencement and Completion: The Bidder agrees to commence Work on the stipulated starting date(s) and will substantially complete the Work in accordance with the project schedule stipulated in Specification Section 01 12 50 – Summary of Work.
9. Rejection of Bids: The Bidder acknowledges that the Owner reserves the right to waive any informality in, or to reject any or all Bids.
10. Execution of Contract: If notice of the acceptance of this Bid is mailed, telegraphed, or otherwise delivered to the undersigned within forty-five (45) days after the date of the Bid Opening, or any time thereafter, the undersigned will, within ten (10) working days after the receipt of the form of Agreement, execute and deliver the Contract.
11. Site Visit: By initialing at the end of this paragraph the Bidder acknowledges visiting the project Site as requested by the Bidding Documents.

---

(Name-Printed)

(Initials)

12. Signature:

---

*(Signature)*

---

*(Name – Printed)*

---

*(Title – Printed)*

*(Date)*

13. Attachments: As itemized in the "Instructions to Bidders" for a complete Bid Form include the following:
  - a. Bid Form.
  - b. Resolution.
  - c. Non-Collusive Bid Certification.
  - d. Bid Security.

e. Iran Divestment Act Certificate.

14. Supplementary Bid Information: If apparent lowest Bidder upon Bid Opening, submit in accordance with the "Instruction To Bidders" within 3 working days the following:

- a. Contractor Statement of Qualifications – AIA Document A305.
- b. Subcontractor List.
- c. Proposed Equivalent List.
- d. Schedule of Values.
- e. Project Manager Resume.
- f. Qualification Statement.
- g. List of Materials and Equipment.

END OF SECTION 004116.03

SECTION 004116.04 - BID FORM CONTRACT NO. 34 – PLUMBING CONSTRUCTION

PAWLING CENTRAL SCHOOL DISTRICT

BIDDER INFORMATION

CONTACT: \_\_\_\_\_

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

TELEPHONE: (     ) \_\_\_\_\_

FACSIMILE: (     ) \_\_\_\_\_

E-MAIL: \_\_\_\_\_

BID TO (Owner):                      Attention:  
  
   Pawling Central School District  
   515 Route 22  
   Pawling, NY 12564  
   2020 Capital Project-Phase 3

PRIME CONTRACT:                      Contract No. 34

PROJECT TITLE:                        Pawling Central School District  
   2020 Capital Project-Phase 3

Pawling Elementary School:        SED No. 13-12-01-04-0-001-024

ARCHITECTS  
PROJECT NO.:                            208-2101.03

1. Representations: By making this Bid, the Bidder represents that:

The Bidder (identified above) hereby certifies that they have examined and fully understands the requirements and intent of the Bidding and Contract Documents, including Drawings, Project Manuals, and Addenda; and proposes to provide all labor, material, and equipment necessary to complete the Work on, or before, the dates specified in the Agreement for the Base Bid of:

2. Base Bid: \_\_\_\_\_  
*(Words)*  
\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Figures)*

In all locations sums shall be expressed in both words and figures. In case of discrepancy, written word governs.

3. Addenda: The Bidder acknowledges receipt of the following Addendum:

No. _____	Dated _____	No. _____	Dated _____
No. _____	Dated _____	No. _____	Dated _____
No. _____	Dated _____	No. _____	Dated _____

4. Alternates:

Alternate #3: Add Kitchen / Cafeteria renovation construction.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Words)* *(Figures)*

Alternate #4: Add Central Conference renovation construction.

ADD to the base bid, the sum of:

\_\_\_\_\_ (\$ \_\_\_\_\_ )  
*(Words)* *(Figures)*

5. Unit Costs: Not applicable to this contract.

6. Bid Security: Attached hereto is Bid Security in the form of (circle correct form) Bid Bond, Certified Check, Cash in the amount of 5 percent of the written Base Bid amount.

7. Allowances: The Bidder affirms that all allowances listed in the Bidding Documents have been included in the Base Bid and include the overhead and profit for said Allowance.

8. Time of Commencement and Completion: The Bidder agrees to commence Work on the stipulated starting date(s) and will substantially complete the Work in accordance with the project schedule stipulated in Specification Section 01 12 50 – Summary of Work.
9. Rejection of Bids: The Bidder acknowledges that the Owner reserves the right to waive any informality in, or to reject any or all Bids.
10. Execution of Contract: If notice of the acceptance of this Bid is mailed, telegraphed, or otherwise delivered to the undersigned within forty-five (45) days after the date of the Bid Opening, or any time thereafter, the undersigned will, within ten (10) working days after the receipt of the form of Agreement, execute and deliver the Contract.
11. Site Visit: By initialing at the end of this paragraph the Bidder acknowledges visiting the project Site as requested by the Bidding Documents.

\_\_\_\_\_  
(Name-Printed) (Initials)

12. Signature:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name – Printed)

\_\_\_\_\_  
(Title – Printed) (Date)

13. Attachments: As itemized in the "Instructions to Bidders" for a complete Bid Form include the following:
  - a. Bid Form.
  - b. Resolution.
  - c. Non-Collusive Bid Certification.
  - d. Bid Security.
  - e. Iran Divestment Act Certificate.
14. Supplementary Bid Information: If apparent lowest Bidder upon Bid Opening, submit in accordance with the "Instruction To Bidders" within 3 working days the following:
  - a. Contractor Statement of Qualifications – AIA Document A305.
  - b. Subcontractor List.

- c. Proposed Equivalent List.
- d. Schedule of Values.
- e. Project Manager Resume.
- f. Qualification Statement.
- g. List of Materials and Equipment.

END OF SECTION 004116.04

# AIA<sup>®</sup> Document A310™ – 2010

## **Bid Bond**

**CONTRACTOR:**

*(Name, legal status and address)*

**SURETY:**

*(Name, legal status and principal place of business)*

**OWNER:**

*(Name, legal status and address)*

Pawling Central School District  
515 Route 22  
Pawling, NY 12564

**BOND AMOUNT: \$**

**PROJECT:**

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

Pawling Central School District  
2020 Capital Project – Phase 3

Pawling Elementary School  
7 Haight Street  
Pawling, NY 12564

SED No. 13-12-01-04-0-001-024

CSArch Project # 208-2101.03

**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.

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

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

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

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

Signed and sealed this    day of    ,

\_\_\_\_\_  
*(Principal)* *(Seal)*

\_\_\_\_\_  
*(Witness)*

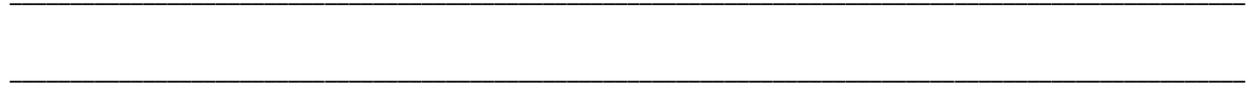
\_\_\_\_\_  
*(Title)*

\_\_\_\_\_  
*(Surety)* *(Seal)*

\_\_\_\_\_  
*(Witness)*

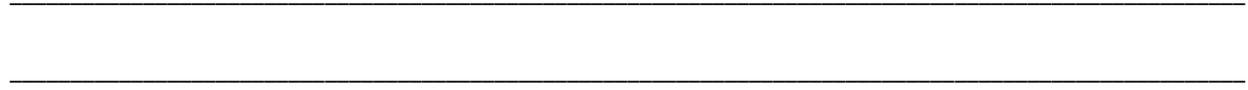
\_\_\_\_\_  
*(Title)*





END OF SECTION 004325





END OF SECTION 004333



END OF SECTION 004336

## Contractor's Qualification Statement

*(Paragraph deleted)*

**SUBMITTED BY:**

*(Organization name and address.)*

**SUBMITTED TO:**

*(Organization name and address.)*

**NAME OF PROJECT:**

Pawling Central School District  
2020 Capital Project – Phase 3

Pawling Elementary School  
7 Haight Street  
Pawling, NY 12564

SED No. 13-12-01-04-0-001-024

CSArch Project No. 208-2101.03

**TYPE OF WORK TYPICALLY PERFORMED**

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

**THIS CONTRACTOR'S QUALIFICATION STATEMENT INCLUDES THE FOLLOWING:**

*(Check all that apply.)*

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

**CONTRACTOR CERTIFICATION**

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

\_\_\_\_\_  
**Organization's Authorized Representative**  
Signature

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Printed Name and Title**

**NOTARY**

State of:

County of:

Signed and sworn to before me this    day of

**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.

\_\_\_\_\_  
**Notary Signature**

**My commission expires:**

DOCUMENT 004519 - NON-COLLUSION AFFIDAVIT

The following provisions of the New York State General Municipal Law form a part of the Bidding Requirements:

NON-COLLUSIVE BIDDING CERTIFICATE

- (a) By submission of this Bid, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint Bid, each party thereto certifies as to its own organization, under penalty of perjury, that, to the best of his or her knowledge and belief:
- (1) The prices in this Bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
  - (2) Unless otherwise required by law, the prices which have been quoted in this Bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
  - (3) No attempt has been made or will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
- (b) A Bid shall not be considered for award nor shall any award be made where (a) (1), (2) and (3) above have not been complied with; provided, however, that if in any case the Bidder cannot make the foregoing certification, the Bidder shall so state and shall so furnish with the Bid, a signed statement which sets forth in detail the reasons therefore. Where (a) (1), (2) and (3) above have not been complied with, the Bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the Bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

The fact that a bidder (a) has published price lists, rates, or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items, or (c) has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of subparagraph (a).

- (c) Any bid hereafter made to any political subdivision of the State or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation, or local law, and where such bid contains the certification referred to in subdivision one of this section, shall be deemed to have been authorized by the board of directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to non-collusion as the act and deed of the corporation.
  
- (d) The person signing this Bid or Proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification, and under the penalties of perjury, affirms the truth thereof, such penalties being applicable to the Bidder as well to the person signing in his behalf.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_ Federal ID No.: \_\_\_\_\_

Business Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

END OF DOCUMENT 004519

DOCUMENT 004520 - IRAN DIVESTMENT ACT AFFIDAVIT

The following provisions of the New York State General Municipal Law form a part of the Bidding Requirements:

IRAN DIVESTMENT ACT CERTIFICATE

(a) By submission of this Bid, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint Bid, each party thereto certifies as to its own organization, under penalty of perjury, that, to the best of his or her knowledge and belief:

(1) That the Bidder is not on the list created pursuant to Paragraph (b) of Subdivision 3 of Section 165-a of the New York State finance law.

(2) By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, Bidder / Contractor (or any assignee) certifies that once the prohibited entities list is posted on the Office of General Services (OGS) website, it will not utilize on such Contract any subcontractor that is identified on the prohibited entities list; and

(3) Additionally, Bidder / Contractor is advised that once the list is posted on the OGS website, any Contractor seeking to renew or extend a Contract or assume the responsibility of a contract awarded in response to the solicitation, must certify at the time the Contract is renewed, extended or assigned that it is not included on the prohibited entities list.

(b) A bid shall not be considered for award nor shall any award be made where the condition set forth in paragraph a of this subdivision has not been complied with; provided, however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefor. A political subdivision may award a bid to a bidder who cannot make the certification pursuant to paragraph (a) of this subdivision on a case-by-case basis if:

(1) The investment activities in Iran were made before the effective date of this section, the investment activities in Iran have not been expanded or renewed after the effective date of this section, and the person has adopted, publicized, and is implementing a formal plan to cease the

investment activities in Iran and to refrain from engaging in any new investments in Iran; or

(2) The political subdivision makes a determination that the goods or services are necessary for the political subdivision to perform its functions and that, absent such an exemption, the political subdivision would be unable to obtain the goods or services for which the contract is offered. Such determination shall be made in writing and shall be a public document.

(c) Any bid hereafter made to any political subdivision of the State or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation, or local law, and where such bid contains the certification referred to in subdivision one of this section, shall be deemed to have been authorized by the board of directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to non-engagement in investment activities in Iran as the act and deed of the corporation.

(d) The person signing this Bid or Proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification, and under the penalties of perjury, affirms the truth thereof, such penalties being applicable to the Bidder as well to the person signing in his behalf.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_ Federal ID No.: \_\_\_\_\_

Business Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

END OF DOCUMENT 004520

DOCUMENT 004543 - CORPORATE RESOLUTIONS

INCLUDE WITH BID FORM(S) IF BIDDER IS AN INDIVIDUAL:

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print or type individual's name and title)

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

\_\_\_\_\_

Business Phone

Facsimile

INCLUDE WITH BID FORM(S) IF BIDDER IS A PARTNERSHIP:

---

(Print or type name of firm)

BY: \_\_\_\_\_  
(Signature of general partner)

---

(Print or type general partner's name and title)

---

(Business Address)

---

Business Phone

Facsimile

INCLUDE WITH BID FORM(S) IF BIDDER IS A CORPORATION:

---

(Print or type name of corporation)

---

(State of incorporation)

BY: \_\_\_\_\_  
(Signature of president or vice-president)

---

(Print or type individual's name and title)

---

(Business Address)

---

Business Phone

Facsimile

ATTEST: \_\_\_\_\_  
(By corporate secretary or assistant secretary)

\_\_\_\_\_  
(Print name and title)

Corporate Seal

END OF DOCUMENT 004543

# AIA<sup>®</sup> Document A132<sup>™</sup> – 2019

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

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

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

Pawling Central School District  
515 Route 22  
Pawling, NY 12564

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

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

Pawling Central School District  
2020 Capital Project – Phase 3

Pawling Elementary School  
7 Haight Street  
Pawling, NY 12564

SED No. 13-12-01-04-0-001-024

CSArch Project # 208-2101.03

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

The Palombo Group  
P.O. Box 4976  
22 Noxon Street  
Poughkeepsie, New York 12601

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

Collins+Scoville Architecture | Engineering | Construction Management, D.P.C.  
dba CSArch  
19 Front Street  
Newburgh, New York 12550

The Owner and Contractor agree as follows.

### **ADDITIONS AND DELETIONS:**

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

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

**TABLE OF ARTICLES**

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

**EXHIBIT A INSURANCE AND BONDS**

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

**ARTICLE 1 THE CONTRACT DOCUMENTS**

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

**ARTICLE 2 THE WORK OF THIS CONTRACT**

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

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

**§ 3.1** The date of commencement of the Work shall be:

*(Check one of the following boxes.)*

- The date of this Agreement.
- A date set forth in a notice to proceed issued by the Owner.
- Established as follows:  
*(Insert a date or a means to determine the date of commencement of the Work.)*

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

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

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

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

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

As per Specification Section 011100 – Special Provisions, Exhibit 'A', Milestone Schedule

*(Paragraph deleted)*

*(Table deleted)*

*(Paragraphs deleted)*

*(Table deleted)*

*(Paragraph deleted)*

**ARTICLE 4 CONTRACT SUM**

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

*(Check the appropriate box.)*

- [ X ] Stipulated Sum, in accordance with Section 4.2 below
- [ ] Cost of the Work plus the Contractor's Fee, in accordance with Section 4.3 below
- [ ] Cost of the Work plus the Contractor's Fee with a Guaranteed Maximum Price, in accordance with Section 4.4 below

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

**§ 4.2 Stipulated Sum**

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

**§ 4.2.2 Alternates**

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

Item	Price
------	-------

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

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

Item	Price	Conditions for Acceptance
------	-------	---------------------------

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

*(Identify each allowance.)*

Item	Price
------	-------

§ 4.2.4 Unit prices, if any:

*(Identify the item and state the unit price, and quantity limitations, if any, to which the unit price will be applicable.)*

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

*(Paragraphs deleted)*

*(Table deleted)*

*(Paragraphs deleted)*

## **ARTICLE 5 PAYMENTS**

### **§ 5.1 Progress Payments**

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

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

**§ 5.1.3** Provided that an Application for Payment is received by the Construction Manager not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the last day of the following month. If an Application for Payment is received by the Construction Manager after the application date fixed above, payment of the amount certified shall be made by the Owner not later than the last day of the second month after the Construction Manager receives the Application for Payment.

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

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

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

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

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

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

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

**§ 5.1.4.3.2** The amount of each progress payment shall then be reduced by:

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

*(Paragraphs deleted)*

**§ 5.1.7 Retainage**

**§ 5.1.7.1** For each progress payment made prior to when the Work of this Contract is substantially complete, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

*(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)*

Five Percent (5%)

**§ 5.1.7.1.1** The following items are not subject to retainage:

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

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

*(If the retainage established in Section 5.1.7.1 is to be modified prior to when the entire Work of this Contract is substantially complete, including modifications for completion of portions of the Work as provided in Section 3.4.2, insert provisions for such modifications.)*

N/A

*(Paragraphs deleted)*

**§ 5.2 Final Payment**

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

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

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

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

*(Paragraphs deleted)*

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

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

Zero % 0

**ARTICLE 6 DISPUTE RESOLUTION**

**§ 6.1 Initial Decision Maker**

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

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

**§ 6.2 Binding Dispute Resolution**

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

*(Check the appropriate box.)*

Arbitration pursuant to Article 15 of AIA Document A232–2019.

Litigation in a court of competent jurisdiction.

Other: *(Specify)*

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

**ARTICLE 7 TERMINATION OR SUSPENSION**

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

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

*(Paragraphs deleted)*

**ARTICLE 8 MISCELLANEOUS PROVISIONS**

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

**§ 8.2** The Owner’s representative:

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

Lou Rodriguez  
The Palombo Group  
P.O. Box 4976  
22 Noxon Street  
Poughkeepsie, New York 12601

**§ 8.3** The Contractor’s representative:

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

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

**§ 8.5 Insurance and Bonds**

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

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

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

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

**§ 8.7 Relationship of the Parties**

Where the Contract is based on the Cost of the Work plus the Contractor’s Fee, with or without a Guaranteed Maximum Price, the Contractor accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Contractor’s skill and judgment in furthering the interests of the Owner; to furnish efficient business administration and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner’s interests. The Owner agrees to furnish and approve, in a timely manner, information required by the Contractor and to make payments to the Contractor in accordance with the requirements of the Contract Documents.

§ 8.8 Other provisions:

**ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS**

§ 9.1 This Agreement is comprised of the following documents:

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

.5 Drawings

Number	Title	Date
Exhibit B	List of Drawings	

.6 Specifications

Section	Title	Date	Pages
Exhibit A	Table of Contents		

.7 Addenda, if any:

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

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

.8 Other Exhibits:

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

- AIA Document A132™–2019, Exhibit B, Determination of the Cost of the Work
- AIA Document E235™–2019, Sustainable Projects Exhibit, Construction Manager as Adviser Edition, dated as indicated below:  
(Insert the date of the E235-2019 incorporated into this Agreement.)

- The Sustainability Plan:

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

- Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
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- 9** Other documents, if any, listed below:

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

Exhibit C – Prevailing Rate of Wages Specification 007343 outlining responsibility and instructions to obtain the Prevailing Wage Schedule and respective updates.

*Execution of this Agreement acknowledges the receipt of these Exhibits and access to this information hereto.*

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

\_\_\_\_\_  
OWNER (Signature)

\_\_\_\_\_  
CONTRACTOR (Signature)

\_\_\_\_\_  
(Printed name and title)

\_\_\_\_\_  
(Printed name and title)

DOCUMENT 006000 - PROJECT FORMS

1.1 FORM OF AGREEMENT AND GENERAL CONDITIONS

- A. The following form of Owner/Contractor Agreement and form of the General Conditions shall be used for Project:
1. AIA Document A101, "Standard Form of Agreement between Owner and Contractor, Stipulated Sum."
    - a. The General Conditions for Project are AIA Document A201, "General Conditions of the Contract for Construction."
  2. AIA Document A132, "Standard Form of Agreement between Owner and Contractor, Construction Manager as Adviser Edition."
    - a. The General Conditions for Project are AIA Document A232, "General Conditions of the Contract for Construction, Construction Manager as Adviser Edition."
  3. The General Conditions are included in the Project Manual.
  4. The Supplementary Conditions for Project are incorporated into a modified copy of the General Conditions included in the Project Manual.
  5. NYSIR Insurance Requirements for Capital Construction are included after the General Conditions. The NYSIR Insurance Requirements take precedent.

1.2 ADMINISTRATIVE FORMS

- A. Administrative Forms: Additional administrative forms are specified in Division 01 General Requirements.
- B. Copies of AIA standard forms may be obtained from the American Institute of Architects; <http://www.aia.org/contractdocs/purchase/index.htm>; [docspurchases@aia.org](mailto:docspurchases@aia.org); (800) 942-7732.
- C. Preconstruction Forms:
1. Form of Performance Bond and Labor and Material Bond: AIA Document A312, "Performance Bond and Payment Bond."
  2. Form of Certificate of Insurance: AIA Document G715, "Supplemental Attachment for ACORD Certificate of Insurance 25-S."
- D. Information and Modification Forms:

1. The Contractor will be responsible to provide information for the duration of the Project on the following forms which will be provided following Contract award, except for form indicated as bound in manual.
  - a. Submittal Cover Sheet
  - b. Request for Information (bound in manual).
  - c. Request for Shutdown
  - d. Daily Report, or approved Contractor's equivalent
  - e. Labor Rate Sheet
  - f. Two Week Look-Ahead Schedule
  - g. Bi-Weekly Material Equipment Status Report
  - h. Substantial Completion Inspection Request

E. Payment Forms:

1. Schedule of Values Form: AIA Document G703, "Continuation Sheet."
2. Payment Application: AIA Document G702/703, "Application and Certificate for Payment and Continuation Sheet."
3. Form of Contractor's Affidavit: AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
4. Form of Affidavit of Release of Liens: AIA Document G706A, "Contractor's Affidavit of Payment of Release of Liens."
5. Form of Consent of Surety: AIA Document G707, "Consent of Surety to Final Payment."

END OF DOCUMENT 006000

## Request for Information

---

**CSArch RFI No.** Enter CSArch RFI Number

**PROJECT** Pawling Central School District, 2020 Capital Project – Phase 3

**DATE:** Enter Date

**CONTRACT No.** Enter Number

**CONTRACT FOR:** Enter Name

**CSARCH PROJECT No.** 208.2101.03

**REVIEWED BY** (Prior to presenting this RFI to the Project Architect)

**Contractor:**  
Enter Name

**CSArch Construction Site Coordinator:**  
Enter Name

**Date:** Enter Date

**Date:** Enter Date

**Contractor RFI No.** Enter Number

### REQUEST

**Subject/Title:** Enter Subject/Title for Reference Purposes

**Date Response Needed:** Enter Date

**Attachment:** Enter Text

**Diagram No.** Enter Number

**Reference Drawing No.** Enter Number

**Spec No.** Enter Number

**Detail(s)/Paragraph(s):** Enter Text

**Question:** Enter Text

**By:** Enter Name

**Date:** Enter Date

### RESPONSE

**Reference Attached** Enter Text

**Sketch No.** Enter Number

**Response:** Enter Text

**By:** Enter Name

**Date:** Enter Date



## Submittal Cover

---

**CSArch Submittal No.** Enter Number

**PROJECT:** Pawling Central School District, 2020 Capital Project – Phase 3

**CSARCH PROJECT No.** 208-2101.03

**CONTRACT No.** Enter Number

**CONTRACT FOR:** Enter text.

**CONTRACTOR:** Enter text.

**SUBCONTRACTOR:** Enter text.

### SUBMITTAL INFORMATION

<input type="checkbox"/> 1 <sup>ST</sup> Submission	Date: Enter Date	<input type="checkbox"/> 1 <sup>st</sup> Re-Submittal	Date: Enter Date	<input type="checkbox"/> 2 <sup>nd</sup> Re-Submittal	Date: Enter Date
--	------------------	--	------------------	--	------------------

Description: Enter text.  
Shop Drawing Title: Enter text.  
Shop Drawing No. Enter Number

Contents:       Product Data       Samples       Tests       Schedules

Manufacturer: Enter text.  
SPEC SECTION: Enter text.      Paragraph(s): Enter text.      Drawing Number: Enter Number

### CONTRACTOR'S APPROVAL

### CSARCH REMARKS

Date: Enter Date      By: Enter Name      Enter text.

Submitted product has been reviewed for release to Architect/Engineer

Submitted product is as specified

Submitted product is equal to specific product

Upon Approval, delivery lead time Enter Number days

### ARCHITECT'S ACTION:

Date: Enter Date      By: Enter Name

No Exception Taken       Make Corrections Needed

Rejected       Revise & Resubmit

Reviewing is only for conformance with the Project's design concept and compliance with the information in the Contract Documents. The Contractor is responsible for quantities and dimensions to be confirmed and correlated at the site; for information that pertains solely to the fabrication processes or to the mean, methods, techniques, sequences & procedures of construction; and for coordination of the Work of all trades. Any corrections on the submittal shall not be deemed an order for extra work.



# AIA<sup>®</sup> Document A312™ – 2010

## Payment Bond

**CONTRACTOR:**

(Name, legal status and address)

**SURETY:**

(Name, legal status and principal place of business)

**OWNER:**

(Name, legal status and address)

Pawling Central School District  
515 Route 22  
Pawling, NY 12564

**CONSTRUCTION CONTRACT**

Date:

Amount: \$

Pawling Central School District  
2020 Capital Project – Phase 3

Pawling Elementary School  
7 Haight Street  
Pawling, NY 12564

SED No. 13-12-01-04-0-001-024

CSArch Project # 208-2101.03

**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.

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

**BOND**

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond:  None  See Section 18

**CONTRACTOR AS PRINCIPAL**

Company: (Corporate Seal)

**SURETY**

Company: (Corporate Seal)

Signature: \_\_\_\_\_

Name and

Title:

Signature: \_\_\_\_\_

Name and

Title:

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

(FOR INFORMATION ONLY — Name, address and telephone)

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

(Architect, Engineer or other party:)

Collins+Scoville Architecture |

Engineering | Construction  
Management, D.P.C.  
dba CSArch  
19 Front Street  
Newburgh, New York 12550

*(Row deleted)*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

#### § 16 Definitions

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

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

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

Init.

required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

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

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

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

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

**§ 18** Modifications to this bond are as follows:

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

**CONTRACTOR AS PRINCIPAL**

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

Signature: \_\_\_\_\_

Name and Title: \_\_\_\_\_

Address: \_\_\_\_\_

**SURETY**

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

Signature: \_\_\_\_\_

Name and Title: \_\_\_\_\_

Address: \_\_\_\_\_

# AIA<sup>®</sup> Document A312™ – 2010

## Performance Bond

**CONTRACTOR:**

(Name, legal status and address)

**SURETY:**

(Name, legal status and principal place of business)

**OWNER:**

(Name, legal status and address)

Pawling Central School District  
515 Route 22  
Pawling, NY 12564

**CONSTRUCTION CONTRACT**

Date:

Amount: \$

Description:

(Name and location)

Pawling Central School District  
2020 Capital Project – Phase 3

Pawling Elementary School  
7 Haight Street  
Pawling, NY 12564

SED No. 13-12-01-04-0-001-024

CSArch Project # 208-2101.03

**BOND**

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond:  None  See Section 16

**CONTRACTOR AS PRINCIPAL**

Company: (Corporate Seal)

**SURETY**

Company: (Corporate Seal)

Signature: \_\_\_\_\_

Name and

Title:

Signature: \_\_\_\_\_

Name and

Title:

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

(FOR INFORMATION ONLY — Name, address and telephone)

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

(Architect, Engineer or other party:)

Collins+Scoville Architecture |  
Engineering | Construction

**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.

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

Management, D.P.C.  
dba CSArch  
19 Front Street  
Newburgh, New York 12550

*(Row deleted)*

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

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

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

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

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

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

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

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

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

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

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

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any

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User Notes:

(1097887058)

remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

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

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

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

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

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

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

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

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

#### **§ 14 Definitions**

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

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

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

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

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

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

§ 16 Modifications to this bond are as follows:

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

**CONTRACTOR AS PRINCIPAL**

**SURETY**

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

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

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Name and Title:

Name and Title:

Address:

Address:

# **AIA** Document C106™ – 2013

## **Digital Data Licensing Agreement**

**AGREEMENT** made as of the \_\_\_\_\_ day of \_\_\_\_\_ in the year Two Thousand Twenty-Two  
*(In words, indicate day, month and year.)*

**BETWEEN** the Party transmitting Digital Data ("Transmitting Party"):  
*(Name, address and contact information, including electronic addresses)*

Collins+Scoville Architecture | Engineering | Construction Management D.P.C.  
dba CSArch  
19 Front Street  
Newburgh, New York 12550

and the Party receiving the Digital Data ("Receiving Party"):  
*(Name, address and contact information, including electronic addresses)*

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

Pawling Central School District  
2020 Capital Project – Phase 3

Pawling Elementary School  
7 Haight Street  
Pawling, NY 12564

SED No. 13-12-01-04-0-001-024

CSArch Project # 208-2101.03

The Transmitting Party and Receiving Party agree as follows.

### **TABLE OF ARTICLES**

- 1 GENERAL PROVISIONS**
- 2 TRANSMISSION OF DIGITAL DATA**
- 3 LICENSE CONDITIONS**
- 4 LICENSING FEE OR OTHER COMPENSATION**
- 5 DIGITAL DATA**

### **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.

## ARTICLE 1 GENERAL PROVISIONS

§ 1.1 The purpose of this Agreement is to grant a license from the Transmitting Party to the Receiving Party for the Receiving Party's use of Digital Data on the Project, and to set forth the license terms.

§ 1.2 This Agreement is the entire and integrated agreement between the parties. Except as specifically set forth herein, this Agreement does not create any other contractual relationship between the parties.

§ 1.3 For purposes of this Agreement, the term Digital Data is defined to include only those items identified in Article 5 below.

§ 1.3.1 Confidential Digital Data is defined as Digital Data containing confidential or business proprietary information that the Transmitting Party designates and clearly marks as "confidential."

## ARTICLE 2 TRANSMISSION OF DIGITAL DATA

§ 2.1 The Transmitting Party grants to the Receiving Party a nonexclusive limited license to use the Digital Data identified in Article 5 solely and exclusively to perform services for, or construction of, the Project in accordance with the terms and conditions set forth in this Agreement.

§ 2.2 The transmission of Digital Data constitutes a warranty by the Transmitting Party to the Receiving Party that the Transmitting Party is the copyright owner of the Digital Data, or otherwise has permission to transmit the Digital Data to the Receiving Party for its use on the Project in accordance with the terms and conditions of this Agreement.

§ 2.3 If the Transmitting Party transmits Confidential Digital Data, the transmission of such Confidential Digital Data constitutes a warranty to the Receiving Party that the Transmitting Party is authorized to transmit the Confidential Digital Data. If the Receiving Party receives Confidential Digital Data, the Receiving Party shall keep the Confidential Digital Data strictly confidential and shall not disclose it to any other person or entity except as set forth in Section 2.3.1.

§ 2.3.1 The Receiving Party may disclose the Confidential Digital Data as required by law or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity. The Receiving Party may also disclose the Confidential Digital Data to its employees, consultants or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of Confidential Digital Data as set forth in this Agreement.

§ 2.4 The Transmitting Party retains its rights in the Digital Data. By transmitting the Digital Data, the Transmitting Party does not grant to the Receiving Party an assignment of those rights; nor does the Transmitting Party convey to the Receiving Party any right in the software used to generate the Digital Data.

§ 2.5 To the fullest extent permitted by law, the Receiving Party shall indemnify and defend the Transmitting Party from and against all claims arising from or related to the Receiving Party's modification to, or unlicensed use of, the Digital Data.

## ARTICLE 3 LICENSE CONDITIONS

The parties agree to the following conditions on the limited license granted in Section 2.1:

*(State below rights or restrictions applicable to the Receiving Party's use of the Digital Data, requirements for data format, transmission method or other conditions on data to be transmitted.)*

Revit and/or AutoCAD files will be provided as an accommodation at your request. Due to the nature of electronic data files, the Transmittal Party does not guarantee that the information in these files is identical to the bidding documents. Bid addenda may not have been incorporated into these files. If there are any discrepancies, the bidding documents and subsequent addenda constitute the contract requirements.

The Receiving Party agrees to transmit to the Transmitting Party at the end of the term of this agreement the Revit model including any information added by the Receiving Party.

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**ARTICLE 4 LICENSING FEE OR OTHER COMPENSATION**

The Receiving Party agrees to pay the Transmitting Party the following fee or other compensation for the Receiving Party's use of the Digital Data:  
*(State the fee, in dollars, or other method by which the Receiving Party will compensate the Transmitting Party for the Receiving Party's use of the Digital Data.)*

N/A

**ARTICLE 5 DIGITAL DATA**

The Parties agree that the following items constitute the Digital Data subject to the license granted in Section 2.1:  
*(Identify below, in detail, the information created or stored in digital form the parties intend to be subject to this Agreement.)*

Revit model  
AutoCAD plans

This Agreement is entered into as of the day and year first written above and will terminate upon Substantial Completion of the Project, as that term is defined in AIA Document A201™-2007, General Conditions of the Contract for Construction, unless otherwise agreed by the parties and set forth below.  
*(Indicate when this Agreement will terminate, if other than the date of Substantial Completion.)*

\_\_\_\_\_  
**TRANSMITTING PARTY** *(Signature)*

\_\_\_\_\_  
**RECEIVING PARTY** *(Signature)*

\_\_\_\_\_  
*(Printed name and title)*

\_\_\_\_\_  
*(Printed name and title)*





# AIA

## Document G732™ – 2019

### Application and Certificate for Payment, Construction Manager as Adviser Edition

**TO OWNER:** Pawling Central School District      **PROJECT:** Pawling Central School District      **APPLICATION NO.:** 001      **Distribution to:**

District  
515 Route 22  
Albany, New York  
12564

2020 Capital Project - Phase 3

**PERIOD TO:**

OWNER  
 CONSTRUCTION MANAGER  
 ARCHITECT  
 CONTRACTOR  
 FIELD  
 OTHER

**FROM:** Pawling Central School District      **VIA CONSTRUCTION MANAGER:** The Polombo Group      **CONTRACT DATE:**

**CONTRACTOR:**      **MANAGER:**      **VIA ARCHITECT:** CSArch      **PROJECT NOS:** 208 / 2101 / 03

#### CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract AIA Document G703™, Continuation Sheet, is attached.

1. ORIGINAL CONTRACT SUM ..... 0.00 payments received from the Owner, and that current payment shown herein is now due.

2. NET CHANGES IN THE WORK ..... 0.00 CONTRACTOR:

3. CONTRACT SUM TO DATE (Line 1 ± 2) ..... 0.00 By: \_\_\_\_\_ Date: \_\_\_\_\_

4. TOTAL COMPLETED AND STORED TO DATE (Column G on G703) ..... 0.00 State of: \_\_\_\_\_

5. RETAINAGE:      County of: \_\_\_\_\_  
 a. 0 % of Completed Work      Subscribed and sworn to before  
 b. 0 % of Stored Material      me this \_\_\_\_\_ day of \_\_\_\_\_  
 (Column F on G703)      Notary Public: \_\_\_\_\_  
 My Commission expires: \_\_\_\_\_

Total Retainage (Lines 5a + 5b or Total in Column I of G703) ..... 0.00 **CERTIFICATE FOR PAYMENT**

6. TOTAL EARNED LESS RETAINAGE ..... 0.00 In accordance with the Contract Documents, based on evaluations of the Work and the data comprising this application, the Construction Manager and Architect certify to the Owner that to the best of their knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT ..... 0.00 **AMOUNT CERTIFIED** ..... 0.00

8. CURRENT PAYMENT DUE ..... 0.00 (Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

9. BALANCE TO FINISH, INCLUDING RETAINAGE ..... 0.00 **CONSTRUCTION MANAGER:**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
 ARCHITECT: (NOTE: If multiple Contractors are responsible for performing portions of the Project, the Architect's Certification is not required.)

SUMMARY OF CHANGES IN THE WORK	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	0.00	0.00
Total approved this month including Construction Change Directives	0.00	0.00
<b>TOTALS</b>	<b>0.00</b>	<b>0.00</b>
<b>NET CHANGES IN THE WORK</b>	<b>0.00</b>	<b>0.00</b>

By: \_\_\_\_\_ Date: \_\_\_\_\_  
 This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

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 User Notes: (359ADA62)









# AIA<sup>®</sup> Document G706<sup>™</sup> – 1994

## Contractor's Affidavit of Payment of Debts and Claims

**PROJECT:** *(Name and address)*  
Pawling Central School District  
2020 Capital Project - Phase 3

**ARCHITECT'S PROJECT NUMBER:**  
208-2101.03

OWNER:   
ARCHITECT:   
CONTRACTOR:   
SURETY:   
OTHER:

**TO OWNER:** *(Name and address)*  
Pawling Central School District  
515 Route 22  
Pawling, NY 12564

**CONTRACT FOR:**  
**CONTRACT DATED:**

**STATE OF:** New York  
**COUNTY OF:**

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

**EXCEPTIONS:**

**SUPPORTING DOCUMENTS ATTACHED HERETO:**

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose

Indicate Attachment  Yes  No

**CONTRACTOR:** *(Name and address)*

BY: \_\_\_\_\_

*(Signature of authorized representative)*

\_\_\_\_\_  
*(Printed name and title)*

*The following supporting documents should be attached hereto if required by the Owner:*

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.
3. Contractor's Affidavit of Release of Liens (AIA Document G706A).

Subscribed and sworn to before me on this date:

Notary Public:  
My Commission Expires:



 **AIA** Document G706A™ – 1994

**Contractor's Affidavit of Release of Liens**

---

<b>PROJECT:</b> <i>(Name and address)</i> Pawling Central School District 2020 Capital Project - Phase 3	<b>ARCHITECT'S PROJECT NUMBER:</b> 208-2101.03	OWNER: <input checked="" type="checkbox"/>
<b>TO OWNER:</b> <i>(Name and address)</i> Pawling Central School District 515 Route 22 Pawling, NY 12564	<b>CONTRACT FOR:</b> <b>CONTRACT DATED:</b>	ARCHITECT: <input checked="" type="checkbox"/> CONTRACTOR: <input checked="" type="checkbox"/> SURETY: <input type="checkbox"/> OTHER: <input checked="" type="checkbox"/>

---

**STATE OF:** New York  
**COUNTY OF:**

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

**EXCEPTIONS:**

**SUPPORTING DOCUMENTS ATTACHED HERETO:**

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

**CONTRACTOR:** *(Name and address)*

**BY:**

\_\_\_\_\_  
*(Signature of authorized representative)*

\_\_\_\_\_  
*(Printed name and title)*

Subscribed and sworn to before me on this date:

Notary Public:

My Commission Expires:





# AIA® Document G707™ – 1994

## Consent Of Surety to Final Payment

**PROJECT:** *(Name and address)*

Pawling Central School District  
2020 Capital Project - Phase 3

**ARCHITECT'S PROJECT NUMBER:**

208-2101.03

**OWNER:**

**ARCHITECT:**

**CONTRACTOR:**

**SURETY:**

**OTHER:**

**CONTRACT FOR:**

**TO OWNER:** *(Name and address)*

Pawling Central School District  
515 Route 22  
Pawling, NY 12564

**CONTRACT DATED:**

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the  
*(Insert name and address of Surety)*

on bond of  
*(Insert name and address of Contractor)*

, SURETY,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety of any of  
its obligations to  
*(Insert name and address of Owner)*

, CONTRACTOR,

as set forth in said Surety's bond.

, OWNER,

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:  
*(Insert in writing the month followed by the numeric date and year.)*

\_\_\_\_\_  
*(Surety)*

\_\_\_\_\_  
*(Signature of authorized representative)*

Attest:  
(Seal):

\_\_\_\_\_  
*(Printed name and title)*



 **AIA**® Document A232™ – 2019**General Conditions of the Contract for Construction, Construction Manager as Adviser Edition****for the following PROJECT:***(Name, and location or address)*

Pawling Central School District  
2020 Capital Project – Phase 3

Pawling Elementary School  
7 Haight Street  
Pawling, NY 12564

SED No. 13-12-01-04-0-001-024

CSArch Project # 208-2101.03

**THE CONSTRUCTION MANAGER:***(Name, legal status, and address)*

The Palombo Group  
P.O. Box 4976  
22 Noxon Street  
Poughkeepsie, New York 12601

**THE OWNER:***(Name, legal status, and address)*

Pawling Central School District  
515 Route 22  
Pawling, NY 12564

**THE ARCHITECT:***(Name, legal status, and address)*

Collins+Scoville Architecture | Engineering | Construction Management D.P.C.  
dba CSArch  
19 Front Street  
Newburgh, New York 12550

**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.

This document is intended to be used in conjunction with AIA Documents A132™–2019, Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition; B132™–2019, Standard Form of Agreement Between Owner and Architect, Construction Manager as Adviser Edition; and C132™–2019, Standard Form of Agreement Between Owner and Construction Manager as Adviser.

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## ARTICLE 1 GENERAL PROVISIONS

### § 1.1 Basic Definitions

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

**§ 1.1.2 The Contract.** The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and the Construction Manager or the Construction Manager's consultants, (3) between the Owner and the Architect or the Architect's consultants, (4) between the Contractor and the Construction Manager or the Construction Manager's consultants, (5) between the Owner and a Subcontractor or Sub-subcontractor (6) between the Construction Manager and the Architect, or (7) between any persons or entities other than the Owner and Contractor. The Construction Manager and Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of their duties.

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

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

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

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

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

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

**§ 1.1.9 Instruments of Service.** Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

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

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

**§ 1.2.1** The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. If, in the interpretation of Contract Documents, conflicting requirements within the Drawings and Specifications occur, or if it appears that the Drawings and Specifications are not in agreement, the requirement to be followed shall be decided by the Architect. Addenda supersede the provisions they amended. 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. All dimensions shown on the Drawings are for bidding purposes only. It is the responsibility of the Contractor to verify all dimensions in the field to ensure proper and accurate fit of materials and items to be installed.
2. The lists of equipment, tabulations of data and schedules appearing in the Specifications or Drawings are included for assistance and guidance in arriving at a more complete understanding of the intended installation. They are not intended, or to be construed, as relieving the responsibility of the Prime Contractors in making their own takeoffs.
3. It is intended that all mechanical and electrical systems will be complete and in proper operation and that all construction components will be complete and in compliance with accepted construction practice upon completion of the Work. Even if items are missing from the Plans and/or Specifications, but are normally required for proper operation of mechanical and electrical systems, or to complete otherwise incomplete construction or to meet governing code requirements, they shall be included by the Contractor, unless he sought and received contradictory interpretation or clarification from the Architect.

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

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

1. Sections of the General Requirements, Division 01, govern the execution of all remaining Divisions of the Specifications.
2. It shall be the Contractor's responsibility, when subcontracting any portion of Work, to arrange or group items of work under particular trades to conform with prevailing customs of the trade, regardless of the particular Divisions and Sections of the Specifications in which the work is described.

**§ 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** Within the Contract Documents for which each Prime Contractor is responsible, any Work included by reference in any section to another Specification's Section shall be included as Work under the Contract, whether or not it is called for under the Section referred to. Failure to cross-reference such items shall not relieve the Prime Contractor from the obligations to provide such work.

## **§ 1.3 Capitalization**

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

#### **§ 1.4 Interpretation**

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

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

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

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

#### **§ 1.6 Notice**

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

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

#### **§ 1.7 Digital Data Use and Transmission**

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

#### **§ 1.7.2 Contractor's Use of Instruments of Service in Electronic Form**

**§ 1.7.2.1** The Architect may, with the concurrence of the Owner furnish to the Contractor versions of Instruments of Service in digital form. The Instruments of Service executed or identified in accordance with Subparagraph 1.1.7 shall prevail in case of an inconsistency with subsequent versions made through manipulatable electronic means.

**§ 1.7.2.2** The Contractor shall not transfer or reuse Instruments of Service in electronic or machine-readable form without the prior written consent of the Architect.

#### **§ 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.

## § 1.9 COMMUNICATION

§ 1.9.1 Construction Manager, Contractor and Architect shall 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 these meetings, the parties do not intend to create additional contractual obligations or modify the legal relationships which may already exist.

## ARTICLE 2 OWNER

### § 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Construction Manager and the Architect do not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

*(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. Unless otherwise provided under the Contract Documents, the Owner, assisted by the Construction Manager, shall secure and pay for the building permit.

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

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

§ 2.3.4 If the employment of the Construction Manager or Architect terminates, the Owner shall employ a successor construction manager or architect and whose status under the Contract Documents shall be that of the Construction Manager or Architect, respectively.

*(Paragraphs deleted)*

### § 2.3.7

The Prime Contracts will be furnished, free of charge, two sets of the Contract Drawings and Project Manuals. Additional sets will be furnished at cost of reproduction and postage and handling when applicable. Subcontractors and other entities desiring copies of Drawings and Project Manuals shall obtain them from the Contractor.

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

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

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

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

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to

review by the Construction Manager and prior approval of the Architect, and the Construction Manager or Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Construction Manager's and Architect's and their respective consultants' additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

## **§ 2.6 ACCELERATION CLAUSE**

**§ 2.6.1** The Owner reserves the right to accelerate the work of the Contract. In the event that the Owner directs acceleration, such directive will be only in written form. The Contractor shall keep cost and other project records related to the acceleration directive separately from normal project costs and records and shall provide a written record of acceleration cost to the Owner on a daily basis.

**§ 2.6.2** In the event that the Contractor believes that some action or inaction on the part of the Owner constitutes an acceleration directive, the Contractor shall immediately notify the Owner in writing that the Contractor considers the actions an acceleration directive, with copies to the Architect and Construction Manager. This written notification shall detail the circumstances of the claimed acceleration directive. The Contractor shall not accelerate their work efforts until the Owner responds in writing to the written notification. If acceleration is then directed or required by the Owner, all cost records referred to above shall be maintained by the Contractor and provided to the Owner on a daily basis.

**§ 2.6.3** In order to preserve a claim to recover additional costs due to acceleration, the Contractor must document that additional expenses were incurred and paid by the Contractor. Labor costs recoverable will be only overtime or shift premium costs or the cost of additional laborers brought to the site to accomplish the accelerated work effort. Equipment costs recoverable will be only the cost of added equipment mobilized to the site to accomplish the accelerated work effort.

## **ARTICLE 3 CONTRACTOR**

### **§ 3.1 General**

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

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

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

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

**§ 3.2.1** Execution of the contract by the Contractor is a representation that the Contractor has carefully examined the Contract Documents and the site, and represents that the Contractor is thoroughly familiar with the nature and location of the Work, the site, the specific conditions under which the Work is to be performed, and all matters which may in any way affect the Work or its performance. The Contractor further represents that as a result of such examinations and investigations, the Contractor thoroughly understands the Contract Documents and their intent and purpose, and is familiar with all applicable codes, ordinances, laws, regulations, and rules as they apply to the Work, and that the Contractor will abide by same. Claims for additional time or additional compensation as a result of the Contractor's failure to follow the foregoing procedure and to familiarize itself with all local conditions and the Contract Documents will not be permitted.

**§ 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

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the information furnished by the Owner pursuant to Section 2.2.3, 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 submitted in writing on 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. If the Contractor performs any construction activity which involves an error, inconsistency or omission in the Contract Documents without first providing notice to the Owner, Architect and Construction Manager of such condition and receiving authorization to proceed, the Contractor shall assume responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.

*(Paragraph deleted)*

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

**§ 3.2.5** Where existing conditions are obscured or concealed from the Owner or Architect's view prior to the start of this Project's construction activities, portrayal of such conditions in the documents is based on reasonable implications and assumptions. The Owner and Architect do not imply or guarantee to the Contractor in any way that such portrayals in the Documents are accurate or true.

**§ 3.2.5.1** Physical investigations and testing of existing conditions were not undertaken by the Architect, unless so indicated in the Contract Documents.

**§3.2.5.2** The Contractor may submit requests for information to the Architect to help facilitate the Contractor's performance of the contract. Prior to submitting each request for information, the Contractor shall first carefully study and compare the Contract Documents, field conditions, other Owner provided information, Contractor prepared Coordination Drawings, and prior Project correspondence and documentation to determine that the information to be requested is not reasonably obtainable from such sources.

**§ 3.2.5.3** Each request for information shall be submitted to the Construction Manager, in writing. Each request for information shall identify the specific sources which were reviewed by the Contractor in an effort to determine the information requested, and a statement to the effect that the information being requested could not be determined from such sources. After review, the Construction Manager will forward the request to the Architect.

**§ 3.2.5.4** The Contractor shall submit each request for information sufficiently in advance of the date by which such information is requested in order to allow the Architect sufficient time, in the Architect's professional judgment, to permit adequate review and response and to permit Contractor compliance with the latest construction schedule.

**§ 3.2.5.5** The Construction Manager shall maintain a log at the Project site that sequentially numbers and lists each request for information. This log shall contain the Drawings reference or Specification section to which the request pertains, the date of the request, to whom the request was made, by whom the request was made, the nature of the request, and the Architect's resolution thereof. This log shall be reviewed at each Project meeting and the status of the requests for information shall be made part of the minutes of such meetings.

**§ 3.2.5.6** The Contractor shall reimburse the Owner amounts charged to the Owner by the Architect or Construction Manager for responding to Contractor requests for information where such information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, other Owner provided information, Contractor prepared Coordination Drawings, or prior Project correspondence or documentation.

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

**§ 3.3.1** The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner, the Construction Manager, and the Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. The Construction Manager shall review the proposed alternative for sequencing, constructability, and coordination impacts on the other Contractors. Unless the Architect or the Construction Manager objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures. The Contractor shall be responsible for and coordinate any and all inspections required by any governmental body having jurisdiction over the project. Failure to obtain any permits, licenses or other approvals because of the failure of the Contractor to conform to this requirement shall not extend the Contract time, and the Contractor shall not be entitled to any increase in the contract sum therefor. In addition, any additional costs and/or expenses of any nature incurred by the Owner as a result of the Contractor's failure to conform to this requirement shall constitute a charge against the Contractor's contract. Each contractor shall be responsible for complying with union regulations existing under current labor agreements in performing construction work on the project.

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

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

**§ 3.3.4** During period of active Construction, consult daily and cooperate with the Construction Manager. On a daily basis, keep the Construction Manager and Architect notified of when Work will be starting, restarting, suspended and temporarily or permanently concluding.

**§ 3.3.5** Within 15 days of the date of the Notice to Proceed, each Contractor shall submit to the Construction Manager and Architect a list of all Contractor's principal staff assignments, including the Superintendent and other personnel in attendance at the site; identify individuals, their duties and responsibilities.

### **§ 3.4 Labor and Materials**

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

**§ 3.4.2** After the Contract has been executed, the Architect in conjunction with the Construction Manager, will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the General Requirements (Division 01 of the Specifications). Substitutions shall satisfy the following conditions:

1. The materials, products and equipment described in the Contract Documents establish the standard of required quality, function, dimension and appearance expected.
2. Substitution requests will be considered only if standards are met or exceeded as described above and are subsequently approved by the Architect and Owner.
3. Each such request shall include the name of the material, product or equipment item for which substitution is requested and a complete description of the proposed substitute, including drawings, cuts, performance and test data and any other information necessary for a complete evaluation.

4. Each such request shall include a statement setting forth any changes in other materials, product or equipment or other work that incorporation of the substitution would require.
5. The burden of proof of the merit of the proposed substitution is upon the proposer.
6. The Architect's decision of approval or disapproval of a proposed substitution shall be final and will be set forth in writing.
7. Additional substitution requests, during construction, will be considered only if substitution is caused by specific material, product or equipment's subsequent removal from, or unavailability in the market place and only at "no change" or "credit" to Contract amount.
8. Contractor's Responsibilities: If any of the following conditions occur due to substitutions, the contractor making the substitution shall bear the cost of such conditions, including payment for services rendered by the Architect:
  - (a) Redesign required for any of the Work.
  - (b) Material or quantity changes for any of the Work.
  - (c) Delays in any of the Work.
  - (d) Request for information generated due to substitutions."

**§ 3.4.3** The Contractor, as indicated in the Instructions to Bidders, shall furnish in writing to the Owner through the Construction Manager a list showing the name of the manufacturer proposed to be used for equivalents of products identified in the Specifications, and where applicable, the name of the installing subcontractor. The Construction Manager, in conjunction with the Architect will promptly reply to the Contractor in writing stating whether or not the Owner, Construction Manager or Architect, after due investigation, have reasonable objection to any such proposed manufacturer or installer.

- .1 If adequate data on a proposed equivalent manufacturer or installer is not available, the Architect may state that the action will be deferred until the Contractor provides additional data.
- .2 Failure of the Owner, Construction Manager or Architect to reply in writing within thirty (30) days shall constitute notice of no reasonable objection.
- .3 Failure of the Owner, Construction Manager or Architect to object to a manufacturer or installer shall not constitute a waiver of the requirements of the Contract Documents.
- .4 Products furnished by the listed manufacturer shall conform to such requirements of the Contract Documents.

**§ 3.4.4** The Contractor shall comply with the most current Contract Requirements and Prevailing Wage Rate Schedules as published by the Bureau of Public Works, State of New York, Department of Labor established for this Project.

**§ 3.4.5** No materials or supplies for the Work shall be purchased by the Contractor or by any subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that he has full title to all materials and supplies used by him in the Work, or resold to the Owner, pursuant to this Contract Document, free from all liens, claims or encumbrances.

**§ 3.4.6** All materials used permanently in the Work shall be new unless otherwise specified. The apparent silence of the Specifications as to any detail described concerning any Work to be done and materials to be furnished shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the first quality are to be used, and all interpretations of the Specifications shall be made on this basis. All material incorporated in the Project Work shall be clean and exhibit no appearance of aging, exposure to weather, prior use, handling or damage of any kind.

**§ 3.4.7** Manufacturer's identifications shall be inconspicuous, but where nameplates contain information relative to characteristics or maintenance, they shall be clearly visible and located for easy access.

**§ 3.4.8** Equipment intended for permanent installation shall not be operated for temporary purposes without the written permission of the Architect.

**§ 3.4.9** Materials shall be delivered in manufacturer's original sealed containers, with complete identification of contents and manufacturer, and kept sealed in original containers until used. Labels shall not be removed until materials have been installed and inspected.

§ 3.4.10 Whenever the Contract Documents require delivery by the Contractor of any materials, equipment or other items, the term delivery shall be deemed to include unloading and storing with proper protection where directed.

§ 3.4.11 Materials shall be applied or installed under proper climactic conditions, not when they may be affected by temperature, moisture, humidity or dust.

§ 3.4.12 As defined by Federal and State Laws, no materials incorporated into the Project Work shall contain asbestos. Material shall be "asbestos-free" containing zero percent (0%) asbestos. The Architect reserves the right to request certification from the material manufacturer through the Contractor for certification that materials installed contain zero percent (0%) asbestos.

§ 3.4.13 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.

- .1 A sufficient force of competent experienced workman, foreman and superintendents shall be employed at all times to permit the Work to be pursued with diligence until completion.

### § 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner, Construction Manager, and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Construction Manager or Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

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

### § 3.6 Taxes

Exempt from Sales Tax: New York State Sales Tax is not applicable to any materials and supplies to be incorporated into Work under the terms of the Contract, the Owner being exempt therefrom. There is no exemption from the sales or use tax on charges to the Contractor or subcontractor for lease of tools, machinery, equipment or other property used in conjunction with the Project. The Contractors and subcontractors shall be solely responsible for and pay any and all applicable taxes, including sales and compensating use taxes, on such leased tools, machinery, equipment or other property, and for materials not incorporated in the Project and the amount of such taxes, if any, shall be deemed included in executed Base Bid.

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

§ 3.7.1 The Owner, through the Construction Manager, shall secure and pay for the building permit. The Contractor shall secure and pay for other permits, fees, licenses, and inspections by government agencies necessary for proper execution of and completion of the contract, which are legally required.

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

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

§ 3.7.4 **CONCEALED OR UNKNOWN CONDITIONS.** If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found

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

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

### **§ 3.8 Allowances**

**§ 3.8.1** The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents

- 1 Contingency Allowances shall cover the direct cost to the Contractor for labor, materials and equipment, including delivery, unloading, storage, handling and installation. They do not include the Contractor's overhead and profit, including the costs of bonds, insurance, administration and supervision, which costs should be carried as part of the Contract Sum.

*(Paragraphs deleted)*

**§ 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 full time during performance of the Work. The Superintendent shall be the same individual throughout the duration of the project. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

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

**§ 3.9.3** The Contractor shall not employ a proposed superintendent to whom the Owner, Construction Manager, or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed. The Owner reserves the right to bar any employee or agent of the Contractor or any Subcontractor from the Owner's property who fails to comply with the rules, regulations or procedures of the Owner.

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

**§ 3.10.1** The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information, and the Construction Manager's use in developing the Project schedule, a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an

apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project. The Contractor shall cooperate with the Construction Manager in scheduling and performing the Contractor's Work to avoid conflict with, and as to cause no delay in, the work or activities of other Contractors, or the construction or operations of the Owner's own forces or Separate Contractors.

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

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

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

### § 3.11 Documents and Samples at the Site

The Construction Manager shall maintain at the Project site for the Owner two sets of record Drawings and one set of record Specifications, Addenda, Change Orders, Allowance Authorizations, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples, and similar required submittals in good order and condition. Each Prime Contractor shall mark these documents on a weekly basis to record all approved changes, and to record the dimensional locations of his installed work if it deviates from that shown on the Contract or Shop Drawings. Particular attention shall be given to site utilities, the location of valves, HVAC equipment, and all ductwork and major electrical conduit. These shall be in electronic form or paper copy, available to the Construction Manager, Architect, and Owner, and delivered to the Construction Manager for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

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

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

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

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

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

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

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, indicate approval in writing and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents or requested by the Architect 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, Construction Manager, and Architect, that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 Work performed without approved shop drawings, product data, samples or similar submittals as required by the Specifications is subject to all comments and conditions of approval regardless of Work progress. Completed work must be in accordance with all comments and conditions of approval regardless of Work progress. Completed work must be in accordance with all comments on approved submittals. Any portion of the Work performed prior to review and approval by the Architect of required Shop Drawings, Product Data, Samples, or other Submittals, is performed at Contractor's risk. No Contract adjustments will be made to correct or modify Work installed without approval.

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

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

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

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

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

**§ 3.13 Use of Site**

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

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

**§ 3.14 Cutting and Patching**

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

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

**§ 3.15 Cleaning Up**

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

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

**§ 3.16 Access to Work**

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

**§ 3.17 Royalties, Patents and Copyrights**

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

**§ 3.18 Indemnification**

**§ 3.18.1** To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the Owner, Construction Manager, Architect, each of their consultant's, officers, board members, agents, and employees from and against any suits, claims, damages, losses, or expenses, including but not limited to attorneys' fees and litigation costs, arising out of or resulting from performance of the Work, provided that such suit, claim, damage, loss or expense is attributable to any bodily injury, sickness, disease, or death, or injury to or destruction of any tangible property, including loss of use resulting therefrom, but only to the extent caused in whole or in part by the act, omission, fault, or statutory violation of the Contractor, a subcontractor, or any person or entity directly or indirectly employed by them, or any person or entity for whose acts they may be liable or arises out of operation of law as a consequence of any act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of the above may be liable, regardless of whether any of them has been negligent. This provision shall not be construed to require the Contractor to indemnify the Owner, Construction Manager, or Architect for the negligence of the Owner, Construction Manager, or Architect to the extent such

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negligence, in whole or in part, proximately caused the damages resulting in the suit, claim, damage, loss or expense."

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

### § 3.19 DAILY RECORDS CLAUSE

§3.19.1 The Contractor shall prepare and maintain Daily Inspection Records to document the progress of the work on a daily basis. Such daily records shall include a daily accounting of all labor and all equipment on the site for the Contractor and all subcontractors, at any tier. Such daily records will make a clear distinction between work being performed under Change Order, base scope work and/or disputed work.

3.19.2 In the event that any labor or equipment is idled, solely as a result of Owner actions or inactions, the daily records shall record which laborers and equipment were idled and for how long. In the event that specific work activities were stopped, solely as a result of Owner actions or inactions, and labor and equipment was reassigned to perform work on other activities, the daily records will make a clear record of which activities were stopped and where labor and equipment was redirected to.

§3.19.3 Such daily records shall be copied and provided to the Owner through the Construction Manager at the end of every week.

## ARTICLE 4 ARCHITECT AND CONSTRUCTION MANAGER

### § 4.1 General

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

§ 4.1.2 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 and Architect.

*(Paragraph deleted)*

### § 4.2 Administration of the Contract

§ 4.2.1 The Construction Manager and Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's Representative (1) during construction, (2) until 90 days after issuance of the State Education Department's Certificate of Substantial Completion or issuance of the Final Project Certificate for Payment, whichever is later, and (3) with the Owner's concurrence, from time to time during the one-year period for correction of Work described in Section 12.2. The Construction Manager and Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

§ 4.2.2 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.

*(Paragraph deleted)*

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

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

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

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

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

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

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

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

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

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

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

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

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

§ 4.2.17 The Owner shall notify the Construction Manager of any change in the duties, responsibilities and limitations of authority of the Project representatives.

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

§ 4.2.19 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings.

*(Paragraph deleted)*

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

## **ARTICLE 5 SUBCONTRACTORS**

### **§ 5.1 Definitions**

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

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

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

§ 5.2.1 As stated in the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall notify in writing for review by the Construction Manager and Architect, of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Construction Manager may notify the Contractor whether the Owner, the Construction Manager or the Architect (1) has reasonable objection to any such proposed person or entity or, (2)

requires additional time for review. Failure of the Construction Manager to provide notice within the 14-day period shall constitute notice of no reasonable objection.

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

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

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

### **§ 5.3 Subcontractual Relations**

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

### **§ 5.4 Contingent Assignment of Subcontracts**

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

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

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

*(Paragraph deleted)*

**§ 5.4.3** Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor Contractor or other entity

## **ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS**

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

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

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

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

## § 6.2 Mutual Responsibility

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

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

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

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

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

## § 6.3 Owner's Right to Clean Up

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

## ARTICLE 7 CHANGES IN THE WORK

### § 7.1 General

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

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

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

## § 7.2 Change Orders

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

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

## § 7.3 Construction Change Directives

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

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

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

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

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

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance directly related to the work, and other employee costs approved by the Construction Manager and Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools and equipment normally encumbered to perform the work, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, directly related to the work; and
- .5 Costs of supervision by the Site Superintendent directly attributable to the change, if the change requires an extension of time beyond that time indicated in the Contract.

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

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

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

*(Paragraph deleted)*

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

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

#### § 7.4 Minor Changes in the Work

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

#### § 7.5 OVERHEAD AND PROFIT

§ 7.5.1 The combined overhead and profit included in the total cost to the Owner shall be based on the following schedule:

§ 7.5.1.a Prime Contractor: For Work performed by the Prime Contractor's own forces, markup shall not exceed a total of fifteen percent (15%), of the value of labor and materials (L+M).

.1 Example: Total Prime Contractor Amount = (L+M) + 15% O&P

§ 7.5.1.b Prime Contractor's Subcontractor: For Work performed by the Subcontractor's own forces, markup shall not exceed a total of ten percent (10%), of the value of labor and material (L+M). For the Prime Contractor, for work performed by that Prime Contractor's Subcontractor, markup shall not exceed five percent (5%) for the value of the Subcontractor amount.

.1 Example: Total Subcontractor Amount = (L+M) + 10% O&P

.2 Example: Total Prime Contractor Amount = Total Subcontract Amount + 5% O&P

§ 7.5.1.c Sub-Subcontractor: For Work performed by the Subcontractor's own forces, markup shall not exceed a total of five percent (5%) of the value of labor and materials (L+M). For the Subcontractor, for work performed by the Subcontractor's Sub-subcontract, markup shall not exceed 5% of the Subcontractor Amount. For the Prime Contractor, for Work performed by the Subcontractor's Sub-subcontractor, markup shall not exceed 5% of the Subcontractor Amount.

.1 Example: Total Sub-subcontractor Amount = (L+M) + 5% O&P

.2 Example: Total Subcontractor Amount = Sub-subcontractor Amount + 5% O&P

.3 Example: Total Prime Contractor Amount = Subcontractor Amount + 5% O&P

§ 7.5.2 Performance and Payment Bond Adjustments: Do not itemize increases for bond premiums for each individual Change Order per General Conditions of the Contract, Paragraph 11.4.

## ARTICLE 8 TIME

### § 8.1 Definitions

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

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

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8. The Work of this Project shall be substantially complete on or before the dates indicated in Milestone Construction Schedule for those portions of the Work so stipulated. Actual damages may be assessed by the Owner if specified completion dates are not adhered to by the Contractor.

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

### § 8.2 Progress and Completion

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

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

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

### § 8.3 Delays and Extensions of Time

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

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

§ 8.3.3 The Owner shall not be liable to the Contractor and/or any subcontractor for claims or damages of any nature caused by or arising out of delays. The sole remedy against the Owner for delays shall be the allowance of additional time for completion of the Work, the amount of which shall be subject to the claims procedure set forth herein. Except to the extent, if any, expressly prohibited by law, the Contractor expressly agrees not to make and hereby waives any claim for damages for delay, including, but not limited to, those resulting from increased labor or material costs; directions given or not given by the Owner, Construction Manager or Architect, including scheduling and coordination of the Work; the Architect's preparation of drawings and specifications or review of shop drawings and requests for instruction(s); or, on account of any delay, obstruction or hindrance for any cause whatsoever by the Owner, Construction Manager, Architect, or any other contractor on the project, whether or not foreseeable or anticipated. The Contractor agrees that its sole right and remedy therefor shall be an extension of time, if appropriate. **IT IS EMPHASIZED THAT NO MONETARY RECOVERY MAY BE OBTAINED BY THE CONTRACTOR FOR DELAY AGAINST THE OWNER, CONSTRUCTION MANAGER, OR ARCHITECT BASED ON ANY REASON AND THAT THE CONTRACTOR'S SOLE REMEDY, IF APPROPRIATE, IS ADDITIONAL TIME."**

## ARTICLE 9 PAYMENTS AND COMPLETION

### § 9.1 Contract Sum

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

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

### § 9.2 Schedule of Values

As indicated in the Contract Documents, the Contractor shall submit a schedule of values to the Construction Manager, before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Construction Manager and the Architect. This schedule, unless objected to by the Construction Manager or Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. The Construction Manager shall forward to the Architect the Contractor's schedule of values. Any changes to the schedule of values shall be submitted to the Construction Manager and supported by such data to substantiate its accuracy as the Construction Manager and the Architect may require, and unless objected to by the Construction Manager or the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

### § 9.3 Applications for Payment

§ 9.3.1 The Contractor shall submit applications for payment in accordance with Specification Section "Payment Procedures."

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

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

§ 9.3.1.3 Until Substantial Completion, the Owner shall pay ninety-five percent (95%) of the amount due to the Contractor on account of progress payments.

§ 9.3.1.4 When the work or major portions thereof as contemplated by the terms of the Contract are substantially complete, the Contractor shall submit to the Construction Manager and Architect a requisition for payment of the remaining amount of the Contract balance. Upon receipt of such requisition, the Owner shall approve and promptly pay the remaining amount of the Contract less two times the value of any remaining items to be completed and an amount necessary to satisfy any claims, liens or judgments against the Contractor, which have not been suitably discharged, as determined by the Architect in conjunction with the Construction Manager. Any claims, liens or judgments referred to in this clause shall pertain to the Project and shall be filed in accordance with the terms of the Contract, and applicable laws.

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

§ 9.3.2.1 Proof of insurance for items stored off site and copies of invoices are to be provided with Applications for Payment requesting payment for stored materials.

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

encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials and equipment relating to the Work.

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

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

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

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

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

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

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

**§ 9.4.6** The issuance of a Certificate for Payment or a Project Certificate for Payment will not be a representation that the Construction Manager or Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to

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substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

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

**§ 9.5.1** The Construction Manager or Architect may withhold a Certificate for Payment or Project Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Construction Manager's or Architect's opinion the representations to the Owner required by Section 9.4.3 and 9.4.4 cannot be made. If the Construction Manager or Architect is unable to certify payment in the amount of the Application, the Construction Manager will notify the Contractor and Owner as provided in Section 9.4.1 and 9.4.2. If the Contractor, Construction Manager and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment or a Project Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Construction Manager or Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment or Project Certificate for Payment previously issued, to such extent as may be necessary in the Construction Manager's or Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from the 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 or other Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

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

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

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

### **§ 9.6 Progress Payments**

**§ 9.6.1** After the Architect has issued a Certificate for Payment or Project Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Construction Manager and Architect.

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

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

**§ 9.6.4** 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, Construction Manager nor Architect shall have

an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

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

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

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

§ 9.6.8 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.

*(Paragraphs deleted)*

**§ 9.8 Substantial Completion**

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

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall notify the Construction Manager, and the Contractor and Construction Manager shall jointly prepare and submit to the Architect a comprehensive written list of items to be completed or corrected prior to Architect's first (1<sup>st</sup>) inspection. 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 punchlist, the Architect, assisted by the Construction Manager, will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's punchlist, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect, assisted by the Construction Manager, to determine Substantial Completion.

§ 9.8.3.1 Except with the consent of the Owner, the Architect in conjunction with the Construction Manager will perform no more than two (2) inspections to determine whether the Work or a designated portion thereof has attained Substantial Completion in accordance with the Contract Documents. The three (3) inspections will include not only determining if the area is substantially complete, but will also include any follow-up inspection to confirm *all* open punchlist items have been completed for that specific item. The Owner may deduct from the Contract Sum amounts paid to the Architect for any additional inspections necessitated by the Contractor's misrepresentation of conditions.

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

Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

**§ 9.8.5** The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents. The payment shall be sufficient to increase the total payments to one-hundred percent (100%) of the Contract Sum, less two times the value of any remaining items to be completed and any amount necessary to satisfy claims, liens or judgments against the Contractor which have not been suitably discharged, as determined by the Architect assisted by the Construction Manager.

**§ 9.9 Partial Occupancy or Use**

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

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

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

**§ 9.10 Final Completion and Final Payment**

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

**§ 9.10.1.1** Except with the consent of the Owner, the Architect in conjunction with the Construction Manager will perform no more than two (2) inspections to determine whether the Work or a designated portion thereof has attained Final Completion in accordance with the Contract Documents. The Owner may deduct from the Contract Sum amounts paid to the Architect for any additional inspections necessitated by the Contractor's misrepresentation of final completion.

**§ 9.10.2** Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect through the Construction Manager (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner and (7) all Project closeout documents per the General Conditions of the Contract. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

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

**§ 9.10.3.1** Exception is made for the Contractor expressly retained for the removal of lead, asbestos or polychlorinated (PCB) from the site. In this condition, all Contract Specifications and Drawings shall govern the handling of this material.

**§ 9.10.4** The making of final payment shall not constitute a waiver of Claims by the Owner including those arising from

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

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

**§ 9.10.6** In the event the Contractor does not achieve final completion within ninety (90) days after the date of substantial completion, allowing for any approved extensions of the contract time, Contractor shall not be entitled to any further payment and Contractor hereby agrees that such failure to complete the work within the time set forth above shall constitute a waiver of all claims by the Contractor to any money that may be due. This provision shall not operate as a waiver by the Owner of any claims or remedies of any nature against the Contractor arising out of the contract.

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

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

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

## **§ 10.2 Safety of Persons and Property**

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

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

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

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

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

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

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

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

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

If the Contractor or its agents or employees suffers injury or damage to person or property because of an act or omission of the Owner, 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 Owner within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the Owner to investigate the matter.

## **§ 10.3 Hazardous Materials**

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

*(Paragraphs deleted)*

§ 10.3.2.1 Exception is made for the Contractor expressly retained for the removal of lead, asbestos or polychlorinated (PCB) from the site. In this condition, all Contract Specifications and Drawings shall govern the handling of this material.

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

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

*(Paragraph deleted)*

§ 10.4 Emergencies

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

**ARTICLE 11 INSURANCE AND BONDS**

§ 11.1 Contractor's Insurance and Bonds

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

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

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

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

§ 11.1.5 MISCELLANEOUS PROVISIONS

§ 11.1.5.1 The Contractor must have in place coverage with the following minimum limits of liability:

a. **Commercial General Liability Insurance**

\$1,000,000 per occurrence/ \$2,000,000 general and products/completed operations aggregates. The general aggregate shall apply on a per-project basis.

b. **Automobile Liability**

\$1,000,000 combined single limit for owned, hired and borrowed and non-owned motor vehicles.

c. **Workers' Compensation, Employers Liability and NYS Disability Insurance**

Statutory Workers' Compensation, Employers' Liability Insurance and NYS Disability Insurance for all employees. Proof of coverage must be on the approved specific form, as required by the New York State Workers' Compensation Board. ACORD certificates are not acceptable.

d. **Excess Insurance**

\$5,000,000 each Occurrence and Aggregate. Excess coverage shall be on a follow-form basis.

e. **Owners Contractors Protective Insurance**

\$1,000,000 per occurrence/\$2,000,000 aggregate, with the Owner as the named insured.

§ 11.1.5.2 In addition to the above, Contractor will also satisfy any insurance required by any governmental authority.

§ 11.1.5.3 Each insurance certificate shall name the Owner, the Architect, the Construction Manager, and their consultants and employees as an "additional insured" on a primary and non-contributory basis with waivers of subrogation. Listing the above entities as "certificate holder" is NOT acceptable.

§ 11.1.5.4 Two (2) certificates of insurance shall be submitted to, and reviewed by, the Owner prior to start of construction. If the Owner is damaged or subject to loss due to failure of the Contractor to obtain and maintain such insurance, then the Contractor shall bear all cost and responsibilities attributable thereto.

§ 11.1.5.5 Certificates shall be accompanied by a statement of any deductibles, self-insured retentions and exclusion in the policy, including endorsements affecting the coverage for additional insureds.

§ 11.1.5.6 The Contractor shall exhibit any and all policies within three (3) days if demanded by the Owner, Construction Manager or Architect.

§ 11.1.5.7 This insurance must be purchased from a New York State licensed, A.M. Best Rated "A-", "A", or "A+" carrier, and

§ 11.1.5.8 A copy of the requirements for insurance set forth herein shall be forwarded by the Contractor to the Contractor's insurance carrier to ensure that required coverage is provided.

§ 11.2 **Owner's Insurance**

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

*(Paragraphs deleted)*

§ 11.3 **Waivers of Subrogation**

§ 11.3.1 The Contractor waives all rights against the Owner, the Construction Manager and Construction Manager's consultants, the Architect and Architect's consultants, and any of their 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 Contractor, shall require similar written waivers in favor of the individuals and entities identified above from the 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.

*(Paragraphs deleted)*

§ 11.3.1.1 Owner and Contractor intend that any policies provided in response to the insurance provisions shall protect all of the parties insured and provide primary coverage for losses and damages caused by perils covered thereby. Accordingly, all such policies shall contain provisions to the effect that in the event of payment for loss or damage, the insurer will have no right of recovery against any of the parties named as insureds or additional insureds.

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

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

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

#### § 11.4 PERFORMANCE BOND AND PAYMENT BOND

§ 11.4.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

§ 11.4.1.1 The Contractor shall furnish bonds covering faithful performance of the contract and payment of obligations arising thereunder. The value of each bond shall be for one-hundred percent (100%) of the Contract Sum and shall be adjusted during the Project construction period to reflect changes in the Contract Sum. Bonds shall be issued by a bonding company licensed in the State of New York, on AIA Document A312, Performance and Payment Bond.

§ 11.4.1.2 Contractor shall deliver bonds in conjunction with executed Agreement and they shall be dated the same date as Agreement.

§ 11.4.1.3 The attorney in fact who executes the required bonds on behalf of the surety, shall affix thereto a certified and current copy of the power of attorney.

§ 11.4.1.4 Status Reports issued by a Bonding Company shall be sent to and completed by the Owner and then returned to the Bonding Company by the Owner.

§ 11.4.1.5 Any additional cost for bonding premium shall not be itemized within individual Change Orders. Adjustments for Contractor's bonding cost shall be adjusted at the end of the Project based on approved executed changes in the Work and the Bonding Company's final adjusted premium at project closeout.

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

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

### **§ 12.1 Uncovering of Work**

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

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

### **§ 12.2 Correction of Work**

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

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

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

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

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

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

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

**§ 12.2.3.1** Upon request by the Owner and prior to expiration of one year from the date of Substantial Completion, the Construction Manager and the Architect will conduct and the Contractor shall attend a meeting with the Owner to review the facility operations and performance.

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

**§ 12.2.5** Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

**§ 12.3 Acceptance of Nonconforming Work**

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

**ARTICLE 13 MISCELLANEOUS PROVISIONS**

**§ 13.1 Governing Law**

The Contract shall be governed by the law of the place where the Project is located. The parties expressly agree that any claim, dispute or other controversy of any nature arising out of the Contract or performance of the Work shall be commenced and maintained in New York State Supreme Court located in Dutchess County.

**§ 13.1.2** The Contractor shall at all times observe and comply with all Federal and State Laws, and all Laws, Ordinances and Regulations of the Owner, in any manner affecting the work, and all such orders decreed as exist at present and those which may be enacted later, by bodies or tribunals having jurisdiction or authority over the Work, and the Contractor shall indemnify and save harmless the Owner and all its officers, agents or servants against any claim or liability arising from, or based on, a violation of any such law, ordinances, regulation or order, whether by himself or by his employee or agents.

**§ 13.1.3** The Contractor specifically agrees as required by Labor Law, Sections 220 and 220-d, as amended that:

1. No laborer, workman or mechanic in the employ of the Contractor, subcontractor or other person doing contracting or contracting to do the whole or any part of the work contemplated by the Contract, shall be permitted or required to work more than eight hours in one calendar day or more than five days in one week, except in the emergencies set forth in the Labor Law.
2. The wages paid for a legal day's work shall not be less than the prevailing rate of wages as defined by law, and
3. The minimum hourly rate of wages to be paid shall not be less than that stated in the Specifications, and any re-determination of the prevailing rate of wages after the Contract is approved shall be deemed to be incorporated herein by reference as of the effective date of re-determination and shall form a part of this Contract. The Labor Law provides that the Contract may be forfeited and no sum paid for any work done thereunder on a second conviction of willfully paying less than:
  - a. the stipulated wage scale as provided in Labor Law, Section 220, Sub-division 3, as amended; or
  - b. the stipulated minimum hourly wage scale as provided in Labor Law, 220-d, as amended.

**§ 13.1.4** The Contractor specifically agrees as required by the provisions of Labor Law, Section 220-e, as amended that:

1. In hiring of employees for the performance of work under this Contract or any subcontract hereunder or for the manufacture, sale, or distribution of materials, equipment or supplies, hereunder, no Contractor or Subcontractor nor any person acting on behalf of such Contractor or Subcontractor, shall by reason of race, creed, color, disability, sex, or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates.
2. No Contractor, Subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee under this Contract on account of race, creed, color, disability, sex, or national origin.
3. There may be deducted from the amount payable to the Contractor by the Owner under this Contract, a penalty of fifty dollars (\$50) for each person for each calendar day during which such a person was discriminated against or intimidated in violation of the provisions of the Contract, and
4. The provisions of this section covering every Contract for or on behalf of the Owner, the State or a municipality for the manufacture or sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York.

**§ 13.1.5** During the performance of this Contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, sexual orientation, military status, sex, disability, predisposing genetic characteristics, marital status, or domestic violence victim status.
2. If directed to do so by the Owner or the State Commissioner of Human Rights, the Contractor will send to each labor union or representative of workers which with the Contractor has or is bound by a collective bargaining or other agreement or understanding, a notice, to be provided by the State Commissioner of Human Rights, advising such labor union or representative of the Contractor's agreement under clauses (1) through (6) (hereinafter called "non-discrimination clauses"). If the Contractor was directed to do so by the Owner as part of the bid or negation of this Contract, the Contractor shall request such labor union or representative to furnish a written statement that such a labor union representative will not discriminate because of age, race, creed, color, national origin, sexual orientation, military status, sex, disability, predisposing genetic characteristics, or marital status, and that such labor union or representative will cooperate, within the limits of its legal contractual authority, in the implementation of the policy and provisions of these non-discrimination clauses and that it consents and agrees that the recruitment, employment and the terms and conditions of employment under this Contract shall be in accordance with the purposes and provision of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request that it furnish such a statement, the Contractor shall promptly notify the Owner and the State Commissioner of Human Rights of such failure or refusal.
3. If directed to do so by the Owner or the Commissioner of Human Rights, the Contractor will post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Commissioner of Human Rights setting forth the substance of provisions of clauses (1) and (2) and such provision of the State's law against discrimination as the State Commissioner of Human Rights shall determine.
4. The Contractor will state in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will be afforded equal employment opportunities without discrimination because of age, race, creed, color, national origin, sexual orientation, military status, sex, disability, predisposing genetic characteristics, marital status, or domestic violence victim status.
5. The Contractor will comply with the provisions of Sections 290-299 of the Executive Law, and with the Civil Rights Law, will furnish all information and reports deemed necessary by the State Commissioner of Human Rights under these non-discrimination clauses and such section of the Executive Law, and will permit access to the Contractor's books, records, and accounts by the Owner, the State Commissioner of Human Rights, the Attorney General and the Industrial Commissioner for the purposes of investigation to ascertain compliance with the non-discrimination clauses and such sections of the Executive Law Civil Rights Law.
6. This Contract may be forthwith cancelled, terminated or suspended, in whole or in part, by the Owner upon the basis of a finding made by the State Commissioner of Human Rights that the Contractor has not complied with the non-discrimination clauses, and that the Contractor may be declared ineligible for future contracts made by or on behalf of the Owner, the State or a public authority or agency of the State, until the Contractor satisfies the State Commissioner of Human Rights that the Contractor has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such findings may be made by the State Commissioner of the Human Rights after conciliation efforts by the Commissioner have failed to achieve compliance with these non-discrimination clauses and after a verified complaint has been filed with the Commissioner, notice thereof has been given to the Contractor to be heard publicly in accordance with the Executive Law. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions and remedies otherwise provided by law, and
7. The Contractor will include the provisions of clauses .1 through .6 in every subcontract or purchase order in such a manner that such provisions will be binding upon each subcontractor or vendor as to operations to be performed within the State of New York. The Contractor will take action in enforcing such provisions of such subcontract or purchase order as the State Commissioner of Human Rights or the Owner may direct, including sanctions or remedies for non-compliance. If the Contractor becomes involved or is threatened with litigation with a subcontractor or vendor as a result of such directions by the State Commissioner of Human Rights or the Owner, the Contractor shall promptly so notify the Owner and the Attorney General requesting the Attorney General to intervene and protect the interests of the State of New York.

## **§ 13.2 Successors and Assigns**

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

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

## **§ 13.3 Rights and Remedies**

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

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

## **§ 13.4 Tests and Inspections**

**§ 13.4.1** Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Construction Manager timely notice of when and where tests and inspections are to be made so that the Construction Manager 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. This does not apply to code required Special Inspections, the requirements for which are identified elsewhere, and are paid for by the Owner.

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

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

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

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

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

### § 13.5 Interest

Payments to Contractor, including any interest, shall be consistent with this Agreement and in accordance with New York State General Municipal Law Section 106-b.

### § 13.6 TIME LIMITS ON CLAIMS

The Owner and the Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement within the time period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and the Contractor waive all claims and causes of action not commenced in accordance with this Section 13.7.

### §13.7 EQUAL OPPORTUNITY

§13.7.1 The Contractor shall maintain policies of employment as follows:

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

## ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

### § 14.1 Termination by the Contractor

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

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Construction Manager has not certified or the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or

*(Paragraph deleted)*

§ 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 thirty days' notice to the Owner, Construction Manager and Architect, terminate the Contract and recover from the Owner payment for Work properly executed up to the date of termination..

§ 14.1.4 If the Work is stopped for a period of 90 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees, or any other persons performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon thirty additional days' notice to the

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Owner, Construction Manager and Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

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

**§ 14.2.1** The Owner may terminate the Contract if the Contractor

- .1 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 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 breaches any warranty made by the Contractor under or pursuant to the Contract Documents.
- .6 fails to furnish the Owner with assurances satisfactory to the Owner evidencing the Contractor's ability to complete the Work in compliance with all of the requirements of the Contract Documents."

**§ 14.2.2** When any of the reasons described in Section 14.2.1 exist the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work. The costs of finishing the Work include, without limitations, all reasonable attorney's fees, additional Architect/Engineering and Construction Manager costs, insurance, additional interest because of any delay in completing the Work, and all other direct and indirect and consequential damages incurred by the Owner by reason of the termination of the Contractors stated herein.

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

**§ 14.2.4** If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Construction Manager's and Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner.

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

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

**§ 14.3.2** The Contract Sum and the Contract Time may be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. No adjustment shall be made to the extent:

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

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

**§ 14.4.1** Notwithstanding any other provision to the contrary in this Agreement, the Owner reserves the right at any time and in its absolute discretion to terminate the services of the Contractor and/or the Work for the Owner's convenience and without cause by giving written notice to the Contractor. This termination for the convenience of the Owner provision allows and authorizes the Owner to terminate this Agreement at any time and for any reason whatsoever. This right may be exercised by the Owner in its complete discretion.

**§ 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 the case of such termination for the Owner's convenience, the Contractor shall be entitled to, and the Owner shall reimburse the Contractor for the Work properly completed before the effective date of termination. Contractor's entitlement to payment for all such work shall be predicated on its performance of such work in accordance with the Contract Documents as certified by the Architect and Construction Manager. Contractor shall be entitled to no other payment and waives any claim for damages.

## **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. The Owner may refer a claim to the Construction Manager and or the Architect for their review and assistance; however, such is not required by this Agreement.

### **§ 15.1.2 Time Limits on Claims**

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

### **§ 15.1.3 Notice of Claims**

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

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

**§ 15.1.3.3** Claims by the Contractor must be made by written notice in accordance with the following procedures.

- .1 the Contractor may submit a claim concerning a matter properly noticed in accordance with the time requirements of this Contract set forth in paragraph 15.1.3 and elsewhere;
- .2 failure by the Contractor to furnish the required claim documentation within the time set forth above shall constitute waiver of the Contractor's right to compensation for such claim.
- .3 Contractor shall furnish three (3) certified copies of the required claim documentation. The claim documentation shall be complete when furnished. The evaluation of the Contractor's claim will be based, among other things, upon the Owner's Project Records and the Contractor's furnished claim documentation
- .4 claim documentation shall conform to Generally Accepted Accounting Principles and shall be in the following format:
  - a. general introduction;
  - b. general background discussion
  - c. issues

- i. index of issues (listed numerically);
  - ii. for each issue:
    - (1) background
    - (2) chronology
    - (3) Contractor's position (reason for Owner's potential liability)
    - (4) supporting documentation of merit or entitlement
    - (5) supporting documentation of damages
    - (6) begin each issue on a new page
  - d. all critical path method schedules (as-planned, monthly updates, schedule revisions and as-built, along with computer disks of all schedules related to the claim;
  - e. productivity exhibits (if appropriate); and
  - f. summary of issues and damages.
- .5 supporting documentation of merit for each issue shall be cited by reference, photocopies or explanation. Supporting documentation may include, but shall not be limited to General Conditions, General Requirements, technical specifications, drawings, correspondence, conference notes, shop drawings and submittals, shop drawing logs, survey books, inspection reports, delivery schedules, test reports, daily reports, subcontracts, fragmentary CPM schedules or time impact analyses, photographs, technical reports, requests for information, field instructions and all other related records necessary to support the Contractor's claim.
- .6 supporting documentation of damages for each issue shall be cited, photocopied or explained. Supporting documentation may include, but shall not be limited to, any or all documents related to the preparation and submission of the bid; certified, detailed labor records including labor distribution reports; material and equipment procurement records; construction equipment ownership, cost records or rental records; subcontractor or vendor files and cost records; service cost records; purchase orders; invoices; Project as-planned and as-built cost records; general ledger records; variance reports; accounting adjustment records, and any other accounting material necessary to support the Contractor's claims.
- .7 each copy of the claim documentation shall be certified by a responsible officer of the Contractor in accordance with the requirements of these Contract Documents.

**§ 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 Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

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

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

**§ 15.1.6 Claims for Additional Time**

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

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

**§ 15.1.6.3** Claims for increase in the Contract time shall set forth in detail the circumstances that form the basis for the Claim, the date upon which each cause of delay began to affect the progress of Work, the date upon which each cause of delay ceased to affect the progress of the Work and the number of days increased in the Contract time

claimed as a consequence of each such cause of delay. The Contractor shall provide such supporting documentation as the Owner may require including, where appropriate, a revised construction schedule indicating all the activities affected by the circumstances forming the basis of the Claim.

§ 15.1.6.4 The Contractor shall not be entitled to a separate increase in the Contract time for each one of the number of causes of delay which may have concurrent or interrelated effects on the progress of the Work, or for concurrent delays due to the fault of the Contractor.

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

- .1 damages incurred by the Contractor 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.

#### §15.1.8 CLAIM PROCEDURE

§15.1.8.1 Claims by the Contractor must be made by written notice in accordance with the following procedures:

- .1 the Contractor may submit a claim concerning a matter properly noticed in accordance with the time requirements of this Contract.
- .2 failure by the Contractor to furnish the required claim documentation within the time set forth above shall constitute waiver of the Contractor's right to compensation for such claim.
- .3 Contractor shall furnish three (3) certified copies of the required claim documentation, with a copy submitted to the Owner, Architect, and Construction Manager. The claim documentation shall be complete when furnished. The evaluation of the Contractor's claim will be based, among other things, upon the Owner project records and the Contractor's furnished claim documentation.
- .4 claim documentation shall conform to Generally Accepted Accounting Principles and shall be in the following format:
  - a. General Introduction
  - b. General Background Discussion
  - c. Issues
  - A. Index of Issues (listed numerically)
  - B. For each issue
    - (1) Background
    - (2) Chronology
    - (3) Contractor's position (reason for Owner's potential liability)
    - (4) Supporting documentation of merit or entitlement
    - (5) Supporting documentation of damages
    - (6) Begin each issue on a new page
4. all critical path method schedules, (as-planned, monthly updates, schedule revisions, and as-built) along with the computer disks of all schedules related to the claim.
5. Productivity exhibits (if appropriate)
6. Summary of Issues and Damages
7. Supporting documentation of merit for each issue shall be cited by reference, photocopies, or explanation. Supporting documentation may include, but shall not be limited to, general conditions; general requirements; technical specifications; drawings; correspondence; conference notes; shop drawings and submittals; shop drawing logs; survey books; inspection reports; delivery schedules; test reports; daily reports; subcontracts; fragmentary CPM schedules or time impact analyses; photographs; technical reports; requests for information; field instructions; and all other related records necessary to support the Contractor's claim.
8. Supporting documentation of damages for each issue shall be cited, photocopies, or explained. Supporting documentation may include, but shall not be limited to, any or all documents related to the preparation and submission of the bid; certified, detailed labor records including labor distribution reports; material and equipment procurement records; construction equipment ownership cost records or rental records; subcontractor or vendor files and cost records; service cost records; purchase orders;

invoices; project as-planned and as-built cost records; general ledger records; variance reports; accounting adjustment records; and any other accounting materials necessary to support the Contractor's claim.

9. Each copy of the claim documentation shall be certified by a responsible officer of the Contractor in accordance with the requirements of these Contract Documents.

**§15.1.8.2 Claims and Actions Thereon.** No claim against the Owner for damages for breach of contract or compensation for extra work shall be made or asserted in any action or proceeding at law, or in equity, unless the Contractor shall have strictly complied with all the requirements relating to the giving of notice and of information with respect to such claims all as provided in this Agreement.

**§15.1.8.3 No Estoppel.** Neither the Owner nor any department officer, agent or employees thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this Contract by the Owner, or any officer, agent or employee of the Owner, either before or after the final completion and acceptance of the Work and payment therefor: (1) from showing the true and correct classification, amount, quality or character of the Work actually done; or that any such termination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular matter, or that the Work or any part thereof does not in fact conform to the requirements of this Contract; or (2) from demanding and recovering from the Contractor any overpayments made to him, or such damages as it may sustain by reason of his failure to perform each and every part of this Contract in strict accordance with its terms; or (3) both (1) and (2) hereto."

## § 15.2 Initial Decision

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

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

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

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

**§ 15.2.5** If a Claim has not been resolved after consideration of the foregoing and of further evidence presented by the parties or requested by the Architect, the Architect will render to the parties the Architect's written recommendation relative to the Claim, including any recommended change in the Contract Sum or Contract Time or both. If there is a surety and there appears to be a possibility of a Contractor's default, the Architect may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

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

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

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

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

§ 15.2.9 Nothing contained in this Agreement is intended to alter or replace any provisions of the laws of the state of New York relating to claims made against the Owner or to relieve Contractor from any obligations thereunder.

### § 15.3 Mediation

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

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. Mediation shall proceed in advance of binding dispute resolution proceedings.

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

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

### § 15.4 Arbitration

§ 15.4.1 The parties expressly agree to **delete** the requirement that any and all controversies and claims arising out of the contract be referred to arbitration. By so agreeing, the parties express their mutual intent that there is **no agreement** to arbitrate such disputes, notwithstanding the use and reference to arbitration elsewhere in the contract documents."

*(Paragraphs deleted)*

§ 15.5 The parties expressly agree that any claim, dispute, or other controversy of any nature arising out of the contract or performance of the work shall be commenced and maintained in New York State Supreme Court located in Dutchess County.



007216.01

## **SAMPLE INSURANCE REQUIREMENTS – CAPITAL CONSTRUCTION**

1. Notwithstanding any terms, conditions or provisions, in any other writing between the parties, the contractor hereby agrees to effectuate the naming of the District/BOCES as an Additional Insured on the contractor's insurance policies, except for workers' compensation and N.Y. State Disability insurance.
2. The policy naming the District as an Additional Insured shall:
  - a. Be an insurance policy from an A.M. Best A- rated or better insurer, licensed to conduct business in New York State. A New York licensed and admitted insurer is strongly preferred. The decision to accept non-licensed and non-admitted carriers lies exclusively with the District/BOCES and may create significant vulnerability and costs for the District/BOCES.
  - b. State that the organization's coverage shall be primary and non-contributory coverage for the District/BOCES, its Board, employees and volunteers with a waiver of subrogation in favor of the District/BOCES.
  - c. Additional insured status shall be provided by standard or other endorsements that extend coverage to the District/BOCES for on-going operations (CG 20 38) and products and completed operations (CG 20 37). The decision to accept an endorsement rests solely with the District/BOCES. A completed copy of the endorsements must be attached to the Certificate of Insurance.
3.
  - a. The certificate of insurance must describe the services provided by the contractor (e.g., roofing, carpentry or plumbing) that are covered by the liability policies.
  - b. At the District's/BOCES' request, the contractor shall provide a copy of the declaration page of the liability and umbrella/excess policies with a list of endorsements and forms. If requested, the contractor will provide a copy of the policy endorsements and forms.
  - c. There will be no coverage restrictions and/or exclusions involving New York State Labor Law statutes or gravity related injuries.
  - d. A fully completed New York Construction Certificate of Liability Insurance Addendum (ACORD 855 2014/15) must be included with the certificates of insurance. For any "Yes" answers on Items G through L on this Form– additional details must be provided in writing. Policy exclusions may not be accepted.
4. The contractor agrees to indemnify the District/BOCES for applicable deductibles and self-insured retentions.



007216.01

5. Minimum Required Insurance:

a. **Commercial General Liability Insurance**

\$1,000,000 per Occurrence/\$2,000,000 Aggregate

\$2,000,000 Products and Completed Operations

\$1,000,000 Personal and Advertising Injury

\$100,000 Fire Damage

\$10,000 Medical Expense

The general aggregate shall apply on a per-project basis.

b. **Owners Contractors Protective (OCP) Insurance**

For projects less than or equal to \$1,000,000 and work on 1 story (10 feet) only; \$1 million per occurrence, \$2 million aggregate with the District/BOCES as the Named Insured.

For projects greater than \$1,000,000 and/or work over 1 story (10 feet); \$2 million per occurrence, \$4 million aggregate with the District/BOCES as the Named Insured.

For all projects where General Liability, Auto and Umbrella/Excess Coverage is with non-licensed and non-admitted carriers in New York State; \$2 million per occurrence, \$4 million aggregate with the District/BOCES as the named Insured.

The District/BOCES will be the Named Insured on OCP Policies. There will be no Additional Insureds on any OCP Policies.

c. **Automobile Liability**

\$1,000,000 combined single limit for owned, hired, borrowed and non-owned motor vehicles.

d. **Workers' Compensation and NYS Disability Insurance**

Statutory Workers' Compensation (C-105.2 or U-26.3); and NYS Disability Insurance (DB-120.1) for all employees. Proof of coverage must be on the approved specific form, as required by the New York State Workers' Compensation Board. ACORD certificates are not acceptable. A person seeking an exemption must file a CE-200 Form with the state. The form can be completed and submitted directly to the WC Board online.



007216.01

- e. **Builder's Risk**  
Must be purchased by the contractor to include interest of the Owner and Contractor jointly in a form satisfactory to the owner. The limit must reflect the total completed value – all material and labor costs and provide coverage for fire, lightning, explosion, extended coverage, vandalism, malicious mischief, windstorm, hail and/or flood.
  
  - f. **Umbrella/Excess Insurance**  
\$5 million each Occurrence and Aggregate for general construction and no work at elevation (1 story – 10 feet) or project values less than or equal to \$1,000,000.  
  
\$10 million each Occurrence and Aggregate for high-risk construction, work at elevation (>1 story or 10 feet) or project values greater than \$1,000,000.  
  
Umbrella/Excess coverage shall be on a follow-form basis over the Auto Liability and General Liability coverages.
- 6. Contractor acknowledges that failure to obtain such insurance on behalf of the District/BOCES constitutes a material breach of contract and subjects it to liability for damages, indemnification and all other legal remedies available to the District/BOCES. The contractor is to provide the District/BOCES with a certificate of insurance, evidencing the above requirements have been met, prior to the commencement of work.
  
  - 7. **Subcontractors are subject to the same terms and conditions as stated above and must submit same to the District/BOCES for approval prior to the start of any work.**
  
  - 8. In the event the General Contractor fails to obtain the required certificates of insurance from the Subcontractor and a claim is made or suffered, the Contractor shall indemnify, defend, and hold harmless the District/BOCES, its Board, employees and volunteers from any and all claims for which the required insurance would have provided coverage. **This indemnity obligation is in addition to any other indemnity obligation provided in the Contract.**



007216.01

## **ADDITIONAL REQUIREMENTS ASBESTOS, LEAD ABATEMENT AND/OR HAZARDOUS MATERIALS**

### **Asbestos/Lead Abatement/Pollution Liability Insurance**

\$2,000,000 per occurrence/\$2,000,000 aggregate, including products and completed operations. Such insurance shall include coverage for the Contractor's operations including, but not limited to, removal, replacement, enclosure, encapsulation and/or disposal of asbestos, or any other hazardous material, along with any related pollution events, including coverage for third-party liability claims for bodily injury, property damage and clean-up costs. If a retroactive date is used, it shall pre-date the inception of the Contract.

If the Contractor is using motor vehicles for transporting hazardous materials, the Contractor shall maintain pollution liability broadened coverage (ISO Endorsement CA 9948), as well as proof of MCS 90. Coverage shall fulfill all requirements of these specifications and shall extend for a period of three (3) years following acceptance by the District/BOCES of the Certificate of Completion.

### **Testing Company Errors and Omission Insurance**

\$1,000,000 per occurrence/\$2,000,000 aggregate for the testing and other professional acts of the Contractor performed under the Contract with the District/BOCES.

DOCUMENT 007343 – PREVALING RATE OF WAGES

PART 1 – GENERAL

- A. The labor on this contract shall be performed in all respects in full accordance with the Labor Law of the State of New York. In accordance with Section 220, Subdivision 3, and Section 220-D, of the Labor Law, the Industrial Commissioner has designated as the minimum hourly wages to be paid to employees on the work the rates shown on the attached schedules which shall be posted in a prominent and convenient place for the inspection of the Contractor's employees. Article 8, Section 220 of the Labor Law, as amended by Chapter 750 of the Laws of 1956, provides, among other things, that it shall be the duty of the fiscal officer to make a determination of the schedule of wages and supplementals to be paid to all laborers, workmen and mechanics employed on public works projects. The amount of supplementals listed on the enclosed schedule does not necessarily include all types of prevailing supplementals.
- B. The Contractor shall make provision for disability benefits, workman's compensation, unemployment insurance and social security, as required by law.
- C. Per the New York State Education Department's directive via the Office of Facilities Planning, the Contractor is responsible for obtaining copies of the prevailing wage schedule and all updates thereto, as well as the list of employers ineligible to bid on or be awarded public work contracts, directly from the Department of Labor's Bureau of Public Work's web site:
  1. <http://www.labor.ny.gov/workerprotection/publicwork/PWContents.shtml>
    - a. Scroll down to Prevailing Wage Schedule.
    - b. Select the third link, "View of Previously Requested Prevailing Wage Schedule using PRC#"
    - c. Enter the PRC number: **2022010420**
    - d. Select Submit.
    - e. Select the first link "Wage Schedule" at the top right.
  2. In the event that the Contractor does not have internet access or is unable to access the Department's website, please fax a written request for a printed copy of the schedule to the Central Office of the Bureau of Public Works at (518) 485-1870.

END OF DOCUMENT 007343





Kathy Hochul, Governor

Roberta Reardon, Commissioner

Pawling CSD  
Nicole Zarrelli, Administrative Assistant  
40 BEAVER ST FL 3  
CSARCH  
Albany NY 12207

Schedule Year 2022 through 2023  
Date Requested 09/09/2022  
PRC# 2022010420

Location Elementary School  
Project ID# 208-2101.03  
Project Type Additions, renovations, and sitework at the Pawling Elementary School.

### PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2022 through June 2023. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website [www.labor.ny.gov](http://www.labor.ny.gov). Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and /or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

#### NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: \_\_\_\_\_ Date Cancelled: \_\_\_\_\_

Name & Title of Representative: \_\_\_\_\_

Phone: (518) 457-5589 Fax: (518) 485-1870  
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240



# General Provisions of Laws Covering Workers on Article 8 Public Work Contracts

## Introduction

The Labor Law requires public work contractors and subcontractors to pay laborers, workers, or mechanics employed in the performance of a public work contract not less than the prevailing rate of wage and supplements (fringe benefits) in the locality where the work is performed.

## Responsibilities of the Department of Jurisdiction

A Department of Jurisdiction (Contracting Agency) includes a state department, agency, board or commission; a county, city, town or village; a school district, board of education or board of cooperative educational services; a sewer, water, fire, improvement and other district corporation; a public benefit corporation; and a public authority awarding a public work contract.

The Department of Jurisdiction (Contracting Agency) awarding a public work contract MUST obtain a Prevailing Rate Schedule listing the hourly rates of wages and supplements due the workers to be employed on a public work project. This schedule may be obtained by completing and forwarding a "Request for wage and Supplement Information" form (PW 39) to the Bureau of Public Work. The Prevailing Rate Schedule MUST be included in the specifications for the contract to be awarded and is deemed part of the public work contract.

Upon the awarding of the contract, the law requires that the Department of Jurisdiction (Contracting Agency) furnish the following information to the Bureau: the name and address of the contractor, the date the contract was let and the approximate dollar value of the contract. To facilitate compliance with this provision of the Labor Law, a copy of the Department's "Notice of Contract Award" form (PW 16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW 200 form is provided for that purpose.

Both the PW 16 and PW 200 forms are available for completion [online](#).

## Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project.

There are very few exceptions to this rule. Complete information regarding these exceptions is available on the ["Request for a dispensation to work overtime" form \(PW30\)](#) and ["4 Day / 10 Hour Work Schedule" form \(PW 30.1\)](#).

## Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule form the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 12240; Fax to Bureau of Public Work (518) 485-1870; or electronically at the NYSDOL website [www.labor.ny.gov](http://www.labor.ny.gov).

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is REQUIRED to provide complete copies to all prime contractors who in turn MUST, by law, provide copies of all applicable county schedules to each subcontractor and obtain from each subcontractor, an affidavit certifying such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the NYSDOL website [www.labor.ny.gov](http://www.labor.ny.gov).

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1st through June 30th of the following year. The annual determination is available on the NYSDOL website [www.labor.ny.gov](http://www.labor.ny.gov).

## Payrolls and Payroll Records

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. As per Article 6 of the Labor law, contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records. At a minimum, payrolls must show the following information for each person employed on a public work project: Name, Address, Last 4 Digits of Social Security Number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid

or provided, and Daily and weekly number of hours worked in each classification.

The filing of payrolls to the Department of Jurisdiction is a condition of payment. Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The Department of Jurisdiction (Contracting Agency) shall collect, review for facial validity, and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, with ten (10) days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten (10) days will result in the withholding of up to 25% of the contract, not to exceed \$100,000.00. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds \$25,000.00, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8, Section 220-a of the Labor Law.

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. (See NYS Labor Laws, Article 8 . Section 220-a).

### **Determination of Prevailing Wage and Supplement Rate Updates Applicable to All Counties**

The wages and supplements contained in the annual determination become effective July 1st whether or not the new determination has been received by a given contractor. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the public work contractor to use the proper rates. If there is a question on the proper classification to be used, please call the district office located nearest the project. Any errors in the annual determination will be corrected and posted to the NYSDOL website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational ONLY and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

### **Withholding of Payments**

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 235.2 of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

### **Summary of Notice Posting Requirements**

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.

The "Public Work Project" notice must be posted at the beginning of the performance of every public work contract, on each job site.

Every employer providing workers' compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the NYS Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers, notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the NYS Department of Labor.

## **Apprentices**

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the NYS Commissioner of Labor. The allowable ratio of apprentices to journeyworkers in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

NYSDOL Labor Law, Article 8, Section 220-3, require that only apprentices individually registered with the NYS Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency of office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12240 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the NYSDOL Apprenticeship Training Albany Central office. Neither Federal nor State Apprenticeship Training offices outside of Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards, or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

## **Interest and Penalties**

In the event that an underpayment of wages and/or supplements is found:

- Interest shall be assessed at the rate then in effect as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements, and interest due.

## **Debarment**

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five (5) years when:

- Two (2) willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six (6) year period.
- There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

## **Criminal Sanctions**

Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) may be a felony punishable by fine or imprisonment of up to 15 years, or both.

## **Discrimination**

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates (NYS Labor Law, Article 8, Section 220-e(a)).

No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex, or national origin (NYS Labor Law, Article 8, Section 220-e(b) ).

The Human Rights Law also prohibits discrimination in employment because of age, marital status, or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of \$50.00 for each calendar day during which such person was discriminated against or intimidated in violation of the provision of the contract (NYS Labor Law, Article 8, Section 220-e(c) ).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract (NYS Labor Law, Article 8, Section 220-e(d) ).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

### **Workers' Compensation**

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

A contractor who is awarded a public work contract must provide proof of workers' compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers' compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers' compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers' compensation policy for all employees working in New York State.

Every employer providing worker's compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

### **Unemployment Insurance**

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.



Kathy Hochul, Governor

Roberta Reardon, Commissioner

Pawling CSD  
Nicole Zarrelli, Administrative Assistant  
40 BEAVER ST FL 3  
CSARCH  
Albany NY 12207

Schedule Year 2022 through 2023  
Date Requested 09/09/2022  
PRC# 2022010420

Location Elementary School  
Project ID# 208-2101.03  
Project Type Additions, renovations, and sitework at the Pawling Elementary School.

### Notice of Contract Award

New York State Labor Law, Article 8, Section 220.3a requires that certain information regarding the awarding of public work contracts, be furnished to the Commissioner of Labor. One "Notice of Contract Award" (PW 16, which may be photocopied), **MUST** be completed for **EACH** prime contractor on the above referenced project.

Upon notifying the successful bidder(s) of this contract, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

### Contractor Information

All information must be supplied

Federal Employer Identification Number: _____		
Name: _____		
Address: _____ _____		
City: _____	State: _____	Zip: _____
Amount of Contract: \$ _____	Contract Type:	
Approximate Starting Date: ____/____/____	<input type="checkbox"/> (01) General Construction	
Approximate Completion Date: ____/____/____	<input type="checkbox"/> (02) Heating/Ventilation	
	<input type="checkbox"/> (03) Electrical	
	<input type="checkbox"/> (04) Plumbing	
	<input type="checkbox"/> (05) Other : _____	

Phone: (518) 457-5589 Fax: (518) 485-1870  
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240



## **Social Security Numbers on Certified Payrolls:**

The Department of Labor is cognizant of the concerns of the potential for misuse or inadvertent disclosure of social security numbers. Identity theft is a growing problem and we are sympathetic to contractors' concern regarding inclusion of this information on payrolls if another identifier will suffice.

For these reasons, the substitution of the use of the last four digits of the social security number on certified payrolls submitted to contracting agencies on public work projects is now acceptable to the Department of Labor. This change does not affect the Department's ability to request and receive the entire social security number from employers during its public work/ prevailing wage investigations.

## **Construction Industry Fair Play Act: Required Posting for Labor Law Article 25-B § 861-d**

Construction industry employers must post the "Construction Industry Fair Play Act" notice in a prominent and accessible place on the job site. Failure to post the notice can result in penalties of up to \$1,500 for a first offense and up to \$5,000 for a second offense. The posting is included as part of this wage schedule. Additional copies may be obtained from the NYS DOL website, <https://dol.ny.gov/public-work-and-prevailing-wage>

If you have any questions concerning the Fair Play Act, please call the State Labor Department toll-free at 1-866-435-1499 or email us at: [dol.misclassified@labor.ny.gov](mailto:dol.misclassified@labor.ny.gov) .

## **Worker Notification: (Labor Law §220, paragraph a of subdivision 3-a)**

### **Effective June 23, 2020**

This provision is an addition to the existing wage rate law, Labor Law §220, paragraph a of subdivision 3-a. It requires contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the *prevailing wage and supplement rate* for their particular job classification *on each pay stub*\*. It also requires contractors and subcontractors to *post a notice* at the beginning of the performance of every public work contract *on each job site* that includes the telephone number and address for the Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her job classification. The required notification will be provided with each wage schedule, may be downloaded from our website [www.labor.ny.gov](http://www.labor.ny.gov) or be made available upon request by contacting the Bureau of Public Work at 518-457-5589. \*In the event the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.

(12.20)

**To all State Departments, Agency Heads and Public Benefit Corporations  
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

## **Budget Policy & Reporting Manual**

# **B-610**

### **Public Work Enforcement Fund**

*effective date December 7, 2005*

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#### **1. Purpose and Scope:**

This Item describes the Public Work Enforcement Fund (the Fund, PWEF) and its relevance to State agencies and public benefit corporations engaged in construction or reconstruction contracts, maintenance and repair, and announces the recently-enacted increase to the percentage of the dollar value of such contracts that must be deposited into the Fund. This item also describes the roles of the following entities with respect to the Fund:

- New York State Department of Labor (DOL),
- The Office of the State of Comptroller (OSC), and
- State agencies and public benefit corporations.

#### **2. Background and Statutory References:**

DOL uses the Fund to enforce the State's Labor Law as it relates to contracts for construction or reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law. State agencies and public benefit corporations participating in such contracts are required to make payments to the Fund.

Chapter 511 of the Laws of 1995 (as amended by Chapter 513 of the Laws of 1997, Chapter 655 of the Laws of 1999, Chapter 376 of the Laws of 2003 and Chapter 407 of the Laws of 2005) established the Fund.

#### **3. Procedures and Agency Responsibilities:**

The Fund is supported by transfers and deposits based on the value of contracts for construction and reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law, into which all State agencies and public benefit corporations enter.

Chapter 407 of the Laws of 2005 increased the amount required to be provided to this fund to .10 of one-percent of the total cost of each such contract, to be calculated at the time agencies or public benefit corporations enter into a new contract or if a contract is amended. The provisions of this bill became effective August 2, 2005.

**To all State Departments, Agency Heads and Public Benefit Corporations  
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

OSC will report to DOL on all construction-related ("D") contracts approved during the month, including contract amendments, and then DOL will bill agencies the appropriate assessment monthly. An agency may then make a determination if any of the billed contracts are exempt and so note on the bill submitted back to DOL. For any instance where an agency is unsure if a contract is or is not exempt, they can call the Bureau of Public Work at the number noted below for a determination. Payment by check or journal voucher is due to DOL within thirty days from the date of the billing. DOL will verify the amounts and forward them to OSC for processing.

For those contracts which are not approved or administered by the Comptroller, monthly reports and payments for deposit into the Public Work Enforcement Fund must be provided to the Administrative Finance Bureau at the DOL within 30 days of the end of each month or on a payment schedule mutually agreed upon with DOL.

Reports should contain the following information:

- Name and billing address of State agency or public benefit corporation;
- State agency or public benefit corporation contact and phone number;
- Name and address of contractor receiving the award;
- Contract number and effective dates;
- Contract amount and PWEF assessment charge (if contract amount has been amended, reflect increase or decrease to original contract and the adjustment in the PWEF charge); and
- Brief description of the work to be performed under each contract.

Checks and Journal Vouchers, payable to the "New York State Department of Labor" should be sent to:

Department of Labor  
Administrative Finance Bureau-PWEF Unit  
Building 12, Room 464  
State Office Campus  
Albany, NY 12240

Any questions regarding billing should be directed to NYSDOL's Administrative Finance Bureau-PWEF Unit at (518) 457-3624 and any questions regarding Public Work Contracts should be directed to the Bureau of Public Work at (518) 457-5589.



Required Notice under Article 25-B of the Labor Law

**Attention All Employees, Contractors and Subcontractors:  
You are Covered by the Construction Industry Fair Play Act**

**The law says that you are an employee unless:**

- You are free from direction and control in performing your job, **and**
- You perform work that is not part of the usual work done by the business that hired you, **and**
- You have an independently established business.

Your employer cannot consider you to be an independent contractor unless all three of these facts apply to your work.

**It is against the law for an employer to misclassify employees as independent contractors or pay employees off the books.**

**Employee Rights:** If you are an employee, you are entitled to state and federal worker protections. These include:

- Unemployment Insurance benefits, if you are unemployed through no fault of your own, able to work, and otherwise qualified,
- Workers' compensation benefits for on-the-job injuries,
- Payment for wages earned, minimum wage, and overtime (under certain conditions),
- Prevailing wages on public work projects,
- The provisions of the National Labor Relations Act, and
- A safe work environment.

It is a violation of this law for employers to retaliate against anyone who asserts their rights under the law. Retaliation subjects an employer to civil penalties, a private lawsuit or both.

**Independent Contractors:** If you are an independent contractor, **you must pay all taxes and Unemployment Insurance contributions required by New York State and Federal Law.**

**Penalties** for paying workers off the books or improperly treating employees as independent contractors:

- **Civil Penalty**                      First offense: Up to \$2,500 per employee  
    Subsequent offense(s): Up to \$5,000 per employee
- **Criminal Penalty**                First offense: Misdemeanor - up to 30 days in jail, up to a \$25,000 fine and debarment from performing public work for up to one year.  
    Subsequent offense(s): Misdemeanor - up to 60 days in jail or up to a \$50,000 fine and debarment from performing public work for up to 5 years.

**If you have questions about your employment status or believe that your employer may have violated your rights and you want to file a complaint, call the Department of Labor at (866) 435-1499 or send an email to [dol.misclassified@labor.ny.gov](mailto:dol.misclassified@labor.ny.gov). All complaints of fraud and violations are taken seriously. You can remain anonymous.**

**Employer Name:**

IA 999 (09/16)



# Attention Employees

## THIS IS A: **PUBLIC WORK PROJECT**

If you are employed on this project as a **worker, laborer, or mechanic** you are entitled to receive the **prevailing wage and supplements rate** for the classification at which you are working.

Chapter 629 of the Labor Laws of 2007:

**These wages are set by law and must be posted at the work site. They can also be found at:**

<https://dol.ny.gov/public-work-and-prevailing-wage>

If you feel that you have not received proper wages or benefits, please call our nearest office.\*

Albany	(518) 457-2744	Patchogue	(631) 687-4882
Binghamton	(607) 721-8005	Rochester	(585) 258-4505
Buffalo	(716) 847-7159	Syracuse	(315) 428-4056
Garden City	(516) 228-3915	Utica	(315) 793-2314
New York City	(212) 932-2419	White Plains	(914) 997-9507
Newburgh	(845) 568-5156		

\* For New York City government agency construction projects, please contact the Office of the NYC Comptroller at (212) 669-4443, or [www.comptroller.nyc.gov](http://www.comptroller.nyc.gov) – click on Bureau of Labor Law.

Contractor Name: \_\_\_\_\_

Project Location: \_\_\_\_\_



## Requirements for OSHA 10 Compliance

Article 8 §220-h requires that when the advertised specifications, for every contract for public work, is \$250,000.00 or more the contract must contain a provision requiring that every worker employed in the performance of a public work contract shall be certified as having completed an OSHA 10 safety training course. The clear intent of this provision is to require that all employees of public work contractors, required to be paid prevailing rates, receive such training "prior to the performing any work on the project."

### The Bureau will enforce the statute as follows:

All contractors and sub contractors must attach a copy of proof of completion of the OSHA 10 course to the first certified payroll submitted to the contracting agency and on each succeeding payroll where any new or additional employee is first listed.

Proof of completion may include but is not limited to:

- Copies of bona fide course completion card (*Note: Completion cards do not have an expiration date.*)
- Training roster, attendance record or other documentation from the certified trainer pending the issuance of the card.
- Other valid proof

\*\*A certification by the employer attesting that all employees have completed such a course is not sufficient proof that the course has been completed.

Any questions regarding this statute may be directed to the New York State Department of Labor, Bureau of Public Work at 518-457-5589.

## WICKS

Public work projects are subject to the Wicks Law requiring separate specifications and bidding for the plumbing, heating and electrical work, when the total project's threshold is \$3 million in Bronx, Kings, New York, Queens and, Richmond counties; \$1.5 million in Nassau, Suffolk and Westchester counties; and \$500,000 in all other counties.

For projects below the monetary threshold, bidders must submit a sealed list naming each subcontractor for the plumbing, HVAC and electrical and the amount to be paid to each. The list may not be changed unless the public owner finds a legitimate construction need, including a change in specifications or costs or the use of a Project Labor Agreement (PLA), and must be open to public inspection.

Allows the state and local agencies and authorities to waive the Wicks Law and use a PLA if it will provide the best work at the lowest possible price. If a PLA is used, all contractors shall participate in apprentice training programs in the trades of work it employs that have been approved by the Department of Labor (DOL) for not less than three years. They shall also have at least one graduate in the last three years and use affirmative efforts to retain minority apprentices. PLA's would be exempt from Wicks, but deemed to be public work subject to prevailing wage enforcement.

The Commissioner of Labor shall have the power to enforce separate specification requirements on projects, and may issue stop-bid orders against public owners for non-compliance.

Other new monetary thresholds, and similar sealed bidding for non-Wicks projects, would apply to certain public authorities including municipal housing authorities, NYC Construction Fund, Yonkers Educational Construction Fund, NYC Municipal Water Finance Authority, Buffalo Municipal Water Finance Authority, Westchester County Health Care Association, Nassau County Health Care Corp., Clifton-Fine Health Care Corp., Erie County Medical Center Corp., NYC Solid Waste Management Facilities, and the Dormitory Authority.

Contractors must pay subcontractors within a 7 days period.

(07.19)



## SECTION 011200 - MULTIPLE CONTRACT SUMMARY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Project information.
  - 2. Work covered by Contract Documents.
  - 3. Construction schedule.
  - 4. Requirements and assignments for each Contract.
  - 5. Owner-furnished products.
  - 6. Access to site.
  - 7. Coordination with occupants.
  - 8. Work restrictions.
- B. Section includes a summary of each contract, including responsibilities for coordination and temporary facilities and controls.
- C. Each prime contractor is responsible to review all Drawings and Specifications for every contract to gain a complete understanding and knowledge of the entire Project, to determine how the work of each contract is to interface with every other contract.

#### 1.3 DEFINITIONS

- A. The terms contract(or) and prime contract(or) are used interchangeably throughout this document.
- B. Permanent Enclosure: As determined by Architect, the condition at which roofing is insulated and weathertight; exterior walls are insulated and weathertight; and openings are closed with permanent construction or substantial temporary closures equivalent in weather protection to permanent construction.

#### 1.4 PROJECT INFORMATION

- A. Project Identification: Pawling Central School District – 2020 Capital Project – Phase 3
- B. Project Locations:

1. Pawling Elementary School (PES), 7 Haight Street, Pawling, NY 12564
- C. Owner: Pawling Central School District.
  1. Address: 515 Route 22, Pawling NY 12564
- D. Architect: CSArch
  1. Address: 19 Front Street, Newburgh New York 12550.
- E. Construction Manager: The Palombo Group
  1. Address: 22 Noxon Street, Poughkeepsie New York 12601.
  2. Construction Manager has been engaged for this Project to serve as an advisor to Owner and to provide assistance in administering the Contract for Construction between Owner and each Contractor, according to a separate contract between Owner and Construction Manager.
- F. Project Representative: Project Representative will be appointed by Owner.
  1. Project Representative will provide assistance in administering the Contract for Construction between Owner and each Contractor, according to provisions of Division 01 Section “Project Management and Coordination”.
- G. Building Code in Effect for Project: New York State Uniform Fire Prevention and Building Code, Energy Conservation Construction Code of New York State and New York State Education Department.
  1. Comply with the following: New York State Energy Conservation Code and the building standards of the New York State Education Department.

#### 1.5 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Project will be constructed under a multiple prime contracting arrangement with the Owner awarding and holding the separate Contracts. Each contractor shall furnish all labor, material, tools, equipment, supervision, layout, delivery, trucking, shop drawings, submittals, coordination, etc. necessary to complete the work described in the Division of Work of their respective Contracts, and based upon a complete set of Contract Documents.
- B. Each Contractor has been given the opportunity prior to bid to inspect the entire Project site (interior & exterior) for interferences to their Contract work, and agrees to accept the site as it exists on the date of the bid opening.
  1. It is the Owner's intention to continue to occupy the existing buildings and site for normal School operations during the Construction process. The Contractors all agree to:
    - a. Cooperate with the Owner’s personnel in maintaining and facilitating access to the School buildings and its facilities by the School staff, Students, Owner’s agents, service consultants and the public, throughout the construction process.

- b. Keep driveways and entrances serving the occupied School buildings clear and available to the Owner, the Owner’s employees, the public, and to emergency vehicles at all times. Do not obstruct access to, or use these areas for parking, staging of equipment or materials. All access through these existing areas must be coordinated in advance and in accordance with the Owner’s usage and occupancy schedule. Contractors shall review staging plan to understand where materials can be stored.
- c. Schedule construction operations to avoid conflicts or interruptions to the daily school functions. Coordinate any necessary interruptions with the designated project representative.
- d. During student arrival & dismissal, there will be **NO** deliveries or construction traffic of any kind on the site between the hours of 8:40 to 9:15 AM & 3 to 3:35 PM.
- e. All existing Owner-occupied areas of buildings need to always remain operational. The contractors are responsible for maintaining all systems, such as but not limited to: fire alarm, clocks, electric, public address system, heat, gas, water etc.
- f. This project will include second shift work hours during the school year and standard hours during the summer. Additionally, overtime and weekend work as required to maintain the project schedule will also be required. During the school year in areas outside of fully renovated rooms (i.e. above ceiling piping in corridors) conditions must be left at the end of the shift as they were at the beginning of the shift. Any “communal” spaces must be in a finished condition for the owners’ daily program.

C. Each Prime Contractor shall:

- 1. Provide field-engineering services, as required to perform various work per the contract documents.
- 2. Coordinate construction schedule information in order to formulate one master schedule for the entire Project. Master Schedule will require updates as per Division 1 specifications. Additionally, each contractor shall submit “2 Week Look Ahead” schedules that shall further breakdown the activities listed on the Master Schedule.
- 3. Provide PPE to comply with all necessary NYS Labor Law, OSHA and other Federal, State & Local regulations. Parties that do not abide by this requirement will be warned and then removed from the project.
- 4. Provide OSHA 10 hour training certificate for all employees prior to them starting work on the site. In addition these certificates must be sent in with certified payroll as new employees are hired in accordance with NYS DOL.
- 5. Provide potable drinking water for its own employees.
- 6. Provide access to all concealed systems as required for system maintenance and repair for items installed in their Prime Contract. This specifically talks to access panels needed for future maintenance by the district.
- 7. Provide material lifting equipment required for the completion of Contract requirements, and complying with NYS Labor Laws, OSHA Regulations, and other Federal, State, and local laws. All lifting operations (i.e. rigging of rooftop equipment) will require a **written lift plan** submitted for record two weeks in advance of planned lift date.
- 8. Provide Fire Prevention materials and equipment for fire protection related to the work of their own Prime Contract. Provide fire extinguishers, fire blankets, and fire watch during all “Hot Work” operations and as required by OSHA regulations.

9. Provide any supplemental lighting required to install the work of its own Contract, beyond the minimum OSHA levels provided under the Electrical Work Prime Contract.
10. Provide close coordination with construction manager for deliveries needed to perform the work of their own Prime Contract.
11. Provide protections for existing to remain finishes and or newly finished work until after installation and until accepted by the Owner.
12. Provide fire caulking for any penetration related to the work for its own Prime Contract.
13. Provide accommodations for storage of tools & equipment. This site has limited staging and lay down area therefore each contractor should deliver materials accordingly. All deliveries should be coordinated with the Palombo Group.
14. Provide progress and final cleaning as specified. Each contractor shall be responsible to legally dispose of trash & debris for its own contract work.
15. Provide for a thorough final cleaning of the site, building, and equipment provided under their Prime Contract immediately before the final inspection. Each Prime Contractor is responsible for cleaning and dust and debris generated from the work of their own Contract.
  - a. Maintain areas in a cleaned condition until the Owner occupies the space.
  - b. Personnel: Experienced workman or professional cleaners approved by the Construction Manager.

#### 1.6 WORK UNDER SEPARATE CONTRACTS

- A. The work will be constructed under multiple prime contracts. One set of contract documents is issued covering the multiple contracts. Each Prime Contract is defined as:
  1. CONTRACT (31) GC – GENERAL CONSTRUCTION WORK
  2. CONTRACT (32) MC – MECHANICAL CONSTRUCTION WORK
  3. CONTRACT (33) EC – ELECTRICAL CONSTRUCTION WORK
  4. CONTRACT (34) PC – PLUMBING CONSTRUCTION WORK
- B. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under other contracts. Coordinate the Work of this Contract with work performed under separate contracts.
- C. One set of documents is issued covering all multiple prime contracts. Each prime contractor is responsible to review **ALL** drawings and specifications for complete understanding and knowledge of the work.
- D. Extent of Contract: Unless the Contract Documents contains a more specific description of the Work of each Contract, requirements indicated on Drawings and in Specification Sections determine which contract includes a specific element of Project.
  1. Unless otherwise indicated, the work described in this Section for each contract shall be complete systems and assemblies, including products, components, accessories, and installation required by the Contract Documents.
  2. Provide all cutting and patching associated with the Work of its Prime Contract, comply with Section 01 73 29 for further requirements.
  3. Each Prime Contractor is responsible for coordination and associated drawings. See specification section 01 31 00 for additional information.

4. Furnishing of access panels for the work of each contract shall be the work of each contract for its own work. Installation of access panels shall be the work of the General Construction contract.
  5. Equipment pads for the work of each contract shall be provided by the contractor requiring the pad unless noted otherwise.
  6. Through-penetration Firestopping for the Work of each contract shall be provided by each contract for its own Work. Firestopping shall comply with Division 7 Section "Penetration Firestopping section 07 84 13.
  7. Lead based paint precautions for the work of each contract shall be provided by each contract for its own work. Each Prime Contractor shall provide procedures for OSHA Lead precautions.
  8. Each Prime Contractor shall designate a full-time **on site nontrade working superintendent** to supervise the work of the Prime Contractor, who shall always be present on the job site when work is being performed; this person shall be familiar with the Project and authorized to conclude matters relating to progress. This person shall also represent their company at weekly contractor meetings. A working trade foreman will not be acceptable in place of this superintendent requirement.
  9. Specific construction sequencing has been established for this project (see attached at the end of this section) which is intended to allow continuous work throughout the school year. During summer months and school breaks when there are no students present, the work hours will be during the day. The remainder of the year when students are present all work shall be done on second shift, so as not to interfere with the owners daily program. There will be no additional costs for off-hours work.
  10. All contractors shall provide detailed 2 week look ahead schedules while actively working on site. Failure to comply with this requirement will result in progress payments being delayed or not processed.
  11. Termination and removal of temporary facilities shall be provided by each prime contract for its own Work.
- E. Temporary Facilities and Controls: In addition to specific responsibilities for temporary facilities and controls indicated in this Section and in Division 1Section 01 50 00 "Temporary Facilities and Controls," each Prime Contract is responsible for the following:
1. Installation, operation, maintenance, and removal of each temporary facility necessary for its own normal construction activity, and costs and use charges associated with each facility, except as otherwise provided for in this Section.
  2. Generators, plug-in electric power cords and extension cords, supplementary plug-in task lighting, and special lighting necessary exclusively for its own activities.
  3. Its own storage and fabrication sheds.
  4. Temporary enclosures for its own construction activities.
  5. General hoisting facilities for its own construction activities.
  6. Labor force adequate to provide progress cleaning of work areas affected by its operations. Each Prime Contractor is to compile its own debris on a **daily basis** and place it in dumpster provided by the General Work contractor for its own work. A cluttered and dirty work area (interior or exterior) will **NOT** be tolerated.
  7. Secure lockup of its own tools, materials, and equipment.
  8. Construction aids and miscellaneous services and facilities necessary exclusively for its own construction activities.
  9. Safety Procedures as dictated by the district, NYSED, OSHA and the NYS Department of Labor.

## 1.7 GENERAL CONSTRUCTION WORK (GC) – CONTRACT No. 31

A. The Work of the General Construction Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that together form the contract documents. The Contractor is directed to examine **ALL** drawings and specifications since certain details and/or notes may appear anywhere therein that apply to his/her particular work.

1. This prime contract is defined as, and includes, Drawings and Specifications as indicated by reference, and any other construction operations traditionally recognized as General Construction Work.

a. Drawings:

- 1) Cover Sheet
- 2) All “G” and “LS” sheets
- 3) All “C” Series Drawings (Civil)
- 4) All “AA” Series Drawings (Asbestos Abatement)
- 5) All “S” Series Drawings (Structural)
- 6) All “AD”, “A” & “AF” Series Drawings (Architectural)
- 7) All “FS” Series Drawings (Food Service)
- 8) All “DJ”, “PG”, “PD” & “P” (Plumbing), “MG”, “MD” & “M” (Mechanical), “EG”, “ES”, ED” & “E” (Electrical) series drawings as it relates to the work of this contract.

b. Specifications:

- 1) Division 0 – Procurement and Contracting Requirement, all Sections.
- 2) Division 1 – General Requirements, all Sections,
- 3) Division 2 – Existing Conditions, all sections.
- 4) Division 3 – Concrete, all Sections.
- 5) Division 4 – Masonry, all sections.
- 6) Division 5 – Metals, all Sections.
- 7) Division 6 – Woods and Plastics, all Sections.
- 8) Division 7 – Thermal and Moisture Protection, all Sections.
- 9) Division 8 – Openings, all Sections.
- 10) Division 9 – Finishes, all Sections.
- 11) Division 10 – Specialties, all sections.
- 12) Division 11 – Equipment, all Sections
- 13) Division 31 – Earthwork, all sections.
- 14) Division 32 – Site Improvements, all sections.
- 15) Division 33 – Utilities, all sections.
- 16) Appendix A – Geotechnical Evaluation - Tectonic

2. Coordination:

a. Coordination with the work of all other contractors. Some specific coordination items include but are not limited to;

- 1) MEP work
- 2) Casework
- 3) Food Service Equipment

- 4) Hazardous Material Removals
  - 5) Placement of temporary measures to accommodate sequenced work
  - 6) Window & Door replacement
- b. There will be **MANDATORY** coordination required from **all** contractors for this project to ensure proper and timely installation of the proposed work. If additional work is required for any aspect of work due to lack of coordination, the contractor(s) that caused the issue will be responsible for the costs of any corrective action required. If corrective action is required it must be done in accordance with all local codes having jurisdiction and approved by the Owner, Construction Manager & Architect prior to starting.
- c. This project is sequenced in a very specific order. Each contractor shall plan ahead, investigate and coordinate their work and work of other trades accordingly. Failure to actively participate in this required coordination will have a negative result.
3. Demolition:
- a. Removal and disposal of all items as indicated by contract documents inclusive of all existing items and/or equipment not shown if impacting work to be demolished. Related to hazardous material abatement, removals to be as shown within the contract documents and disposal per Code Rule 56. No hazardous material removal will be allowed during the school year except for “spring & winter break” school closures when students & staff are not in the building.
  - b. Complete demolition activities to ensure there is no interruption in utility service. Shutdowns for utilities will need to be coordinated in advance with the Palombo Group and the owner. Exterior removal and replacement work shall be done when school is not in session (summer months or breaks).
  - c. Pertaining to exterior window replacements, contractor must not remove more than can be reinstalled or temporarily enclosed to a weather tight condition in any given shift. Window work in some locations must be coordinated with hazardous materials work.
  - d. Items that are to be salvaged shall be removed in a manner appropriate to retain said items for reuse / reinstallation per the documents.
  - e. Removal of items not specifically called out to be salvaged but may be of use to the owner shall be turned over to the owner. If the owner does not want them, they shall be legally disposed of. Some of these items may be door hardware, wall mounted items, accessories etc.
  - f. Various spaces within the documents are scheduled for complete renovations while other locations have limited renovations to support proposed HVAC system and therefore will require more extensive protection of existing items to remain. All contractors are to be mindful of the spaces they are working within. The General Work contractor is responsible for the repair of any items damaged by their work during construction. Any item that is not specifically indicated to be removed by another trade shall be removed by the General construction work contractor.

- g. Provide selective demolition as indicated by contract documents to allow for new work to be installed including but not limited to windows, doors, walls, openings, floor / wall penetrations, concrete stairs etc.
- h. This contractor shall pay particular attention to hazardous materials for various impacts with both Architectural and Mechanical work. Specifically related to the 1<sup>st</sup> floor boys locker room showers, 2<sup>nd</sup> floor, and Roof as designated by the “AA” series drawings.
  - a. Related to door frame removal and replacement, the/an abatement contractor shall remove, clean & retain all existing wood trim for reinstallation. Remove ACM plaster to allow removal of existing and installation of new door frame so it's within what will be covered by the wood trim but not more than 4” beyond the frame. Coordinate installation of new wood blocking. General tradesman to install new door frame and existing wood trim as well as items indicated within specific details.
  - b. Related to exterior window replacement, the/an abatement contractor shall remove, clean & retain all existing wood trim for reinstallation. In necessary, minimize all plaster removal work to allow for existing and proposed window frame removal and corresponding reinstallation but not beyond the limits of what the existing wood trim will cover. General tradesman to install new window frames and existing wood trim as well as items indicated within specific details.
  - c. Related to Unit Vent removal, the/an abatement contractor shall remove units from floor and wall and dispose units. Disconnection of piping and power will be by the appropriate MEP trades.
  - d. Related to penetrations through ACM plaster walls and or ceilings, the/an abatement contractor shall be responsible for removal and encapsulating exposed edges of ACM to the extent required for proposed work. Coordinate with all other contractors prior to making penetrations. Where 2 or 3 penetrations are required in a room, ACM contractor shall figure that work happening together as one removal.
  - e. Related to the main electrical switchgear, it is presumed to have asbestos containing materials requiring abatement as part of the General Construction scope of work during the summer of 2025. The process for this shall be as follows;
    - a. The electrical contractor will be responsible to de-energize the gear and remove all wire / circuits.
    - b. Abatement contractor will abate the switchgear in place over a maximum **4-day** timeframe.
    - c. Upon completion of abatement, the electrical contractor shall continue with their scheduled work.
- i. At all removals by this contract, disturbed areas are to be restored (“patch to match”) or prepared for new scheduled condition.

4. Temporary Facilities:
  - a. Provide debris removal for the work of this contract inclusive of self-performed work and any subcontractors or vendors. The General Work contractor will be responsible for providing dumpsters for all trades.
  - b. Within fully renovated rooms, furniture and various loose articles within the room will be removed by others to provide access to the work area for construction. In rooms where limited work is performed such as HVAC and plumbing fixture replacements, furniture and various loose articles will be cleared a minimum of 6' away from the intended work areas by others. Poly sheeting is to be installed & maintained to protect all furniture & loose items during the course of the work.
  - c. Set up & maintain staging area for duration of the project. Upon completion of all work, restore disturbed area to original condition. See attachment at the end of this section for additional information.
  - d. Provide erosion control practices and exterior dust control related to the "Civil" work for this project.
  - e. Provide temporary partitions / barriers per SED 155.5 as needed to complete new work. Work areas are to be separated from owner occupied areas at all times. A written dust mitigation plan for each work area will be required prior to work in any given location starting. Restore all areas to original or scheduled condition upon completion of work. See Construction Sequencing and staging plans at the end of this section.
  - f. Provide temporary heat within all work areas to maintain 50 degrees Fahrenheit.
  - g. Provide portable toilet facilities for all workers on the site. Owner toilet facilities are not to be used by workers on the site.
  - h. Provide Temporary Facilities as needed and in conjunction with construction sequencing to allow for completion of new work that may or may not be final system arrangement at the time each sequence of construction is completed.
  - i. See section 1.9A 4c of this specification for additional information on available temporary power for construction. Related to asbestos abatement work, this contractor shall provide connection of temporary power panel and disconnect of temporary panel upon completion of hazardous removal work.
  - j. Provide Temporary Facilities indicated as work of this contract in Division 1 Section 015000, "Temporary Facilities and Controls".
5. Construction:
  - a. General contractor is directed to review the Construction Sequence Plan and Milestone bid schedule to have a comprehensive understanding of completion and turnover dates for each area. Work in each area must be complete prior to moving onto another area.

- b. Provide survey and layout of proposed vestibule addition by a NYS licensed surveyor. This includes foundations and anchor bolt layout.
- c. Provide existing utility identification prior to any excavation work. This includes “call before you dig” and use of a private utility locating service company.
- d. Provide ALL mock-ups as indicated by the specifications in a timely manner so as not to hold up construction progress.
- e. This contractor will be responsible for all excavation, bedding and backfill for interior & exterior utility work as well as for foundations and various flat work. The electrical service work is identified on the “E” series drawings for reference.
- f. This contractor shall provide partial removals and complete new sanitary line and connections to existing in two locations along the front face of the building per the “C” series drawings.
- g. Provide concrete work including but not limited to foundation work, new slab on grade, vapor retarders, existing slab on grade infills, exterior concrete paving and curbs.
- h. Pertaining to new and or removed MEP, this contractor shall provide associated work to provide penetration and or infill patch to match if indicated on the “AD/A” or “S” series drawings. Any other penetration or infill work not shown on the “AD/A” or “S” series drawings will be by the contractor requiring that work.
- i. Provide all structural steel as indicated on the “S” drawings including but not limited to new Canopy or Vestibule addition by Alternate #2, various lintels, and support steel for slab on deck infill, mics metals, pipe and tube railings etc. This contractor shall also provide steel reinforcement as detailed for support of all Mechanical equipment in all areas indicated.
- j. Provide all masonry related work including but not limited to CMU partitions, cleaning, repair, repointing and within existing construction to infill or create new openings for windows, doors, louvers, mechanical work including required lintels.
- k. Provide various partition types including but not limited to, cold-formed metal framing, rough carpentry, sheathing, paneling solid blocking, insulation, wall finishes and architectural finishes as indicated on drawings. This contractor shall also provide air barriers, sealants and penetration & joint fire stopping for its own work. Where new partitions / chase walls are constructed on 2<sup>nd</sup> floor of Area 1, contractor must coordinate with “AA” series drawings for top of wall attachment supports / or top track.
- l. Provide interior and exterior doors, frames, thresholds, glazing and all associated hardware. Some locations require completely new assemblies while others do not. Particular attention to the door schedule, various key notes and specifications indicated within the documents is paramount.
- m. Provide window replacement throughout the building under Alternate #1A, 1B, 1C & 1D.

- n. Provide various finishes including but not limited to plaster, gypsum board, ceramic tile, sound absorbing wall units and interior/exterior painting and finishes. Any other disturbed areas resulting from construction not shown to receive a new finish will need to be “patched to match”.
- o. Provide all roofing related work for infill areas, new penetrations, and areas of new construction inclusive of all required components to provide a complete weather tight roof. All roofing work shall be done in a manner to maintain existing roofing warranty. With respect to roof penetrations, the following process shall be followed.
  - 1. Layout penetration by MEP Contractor(s).
  - 2. Cutting roof & deck opening and installing necessary blocking for curbs and final patching of roof to maintain warranty will be by the General Construction Work contractor and their abatement subcontractor.
  - 3. Curbs shall be furnished TIMELY by Mechanical Contractor and handed over to General Construction work contractor for installation. All other pipe & conduit boots required are part of the General Construction work contract.
- p. Provide new ceiling systems, soffits and associated framing as required for various ceilings indicated in contract documents including but not limited to acoustical tile, gypsum board and painted ceilings. Contractor must coordinate with “AA” series drawings for attachment of wall angle on 2<sup>nd</sup> floor Area 1. Any other ceiling work either shown or not shown within the “AD/A” series drawings required for MEP related work will be by the respective MEP trade requiring the work.
- q. Provide new flooring including but not limited to terrazzo, resinous, carpet, resilient and ceramic tile as well as corresponding base and accessories for each. Where existing floor mounted mechanical equipment is removed and not replaced, provide floor finish to match existing. Where all new flooring is required, provide floor preparation and moisture mitigation to accept new flooring in compliance with flooring manufacturer warranty.
- r. Provide various finishes according to finish plans and schedules indicated in the contract documents. This includes but is not limited to visual display units, signage, toilet, bath and laundry accessories, metal storage shelving, cubicle curtains & track and display cases.
- s. Provide various furnishings including but not limited to roller window shades, casework, countertops, solid surfacing and entrance mats
- t. Provide food service and gymnasium equipment per division 11 in accordance with Alternate #3.
- u. Install access doors supplied by MEP trades. Additionally, provide the following access doors not shown for use as directed by AE or CM during construction.
  - 1) One (1) 12”x12” fire rated stainless steel access door.
  - 2) One (1) 18”x18” fire rated stainless steel access door.

6. Provide thorough final cleaning of all spaces including but not limited to glazing, floor wax, and wipe down of all effected surfaces. Cleaning activities shall be done by a qualified *professional cleaner* and shall be maintained until owner occupancy.
7. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.
8. Working hours for this project will be second shift during the school year (4 to 12pm) and standard hours (7 to 3:30pm) during the summer months. Additional overtime work to maintain the schedule will be required as needed.

### 1.8 MECHANICAL CONSTRUCTION WORK (MC) – CONTRACT No. 32

- A. The Work of the Mechanical Construction Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract documents. The Contractor is directed to examine **ALL** drawings and specifications since certain details and/or notes may appear anywhere therein that apply to his/her particular work.
1. This prime contract is defined as, and includes, Drawings and Specifications as indicated by reference, and any other construction operations traditionally recognized as Heating, ventilating, cooling and controls work.
    - a. Drawings:
      - 1) Cover Sheet
      - 2) All “G” and “LS” Sheets
      - 3) All “DJ” Series Drawings
      - 4) All “MG”, “MD” & “M” Series Drawings (Mechanical)
      - 5) All “C” (Civil), “AA” (Asbestos Abatement), “S” (Structural) “AD”, “A” & “AF” (Architectural), “FS” (Food Service), “PG”, “PD” & “P” (Plumbing) and “EG”, “ES”, ED” & “E” (Electrical) series drawings as it relates to the work of this contract.
    - b. Specifications:
      - 1) Division 0 –Procurement and Contracting Requirement, all sections.
      - 2) Division 1 –General Requirements all sections.
      - 3) Division 2 – Section 024119, Selective Structure Demolition.
      - 4) Division 7 – Section 078413/078443, Penetration / Joint Firestopping and 07 92 00, Joint Sealants, as required for the Work of this Contract.
      - 5) Division 23 – HVAC, all sections.
      - 6) Division 25 – Integrated Automation, all sections
      - 7) Division 26 - All sections as they relate to this contract for power connections to equipment.
      - 8) Appendix A – Geotechnical Evaluation – for reference

2. Coordination:

- a. Coordination with the work of all other contractors. Some specific coordination items include but are not limited to;
  - 1) MEP work
  - 2) Casework
  - 3) Food Service Equipment
  - 4) Hazardous Material Removals
  - 5) Placement of temporary measures to accommodate sequenced work
  - 6) Window & Door replacement
- b. There will be **MANDATORY** coordination required from **all** contractors for this project to ensure proper and timely installation of proposed work. If additional work is required for any aspect of work due to lack of coordination, the contractor(s) that caused the issue will be responsible for the costs of any corrective action required. If corrective action is required it must be done in accordance with all local codes having jurisdiction and approved by the Owner, Construction Manager & Architect prior to starting.
- c. This project is sequenced in a very specific order. Each contractor shall plan ahead, investigate and coordinate their work and work of other trades accordingly. Failure to actively participate in this required coordination will have a negative result.

3. Demolition:

- a. Removal and disposal of all items as indicated by contract documents inclusive of all existing items and/or equipment not shown if impacting work to be demolished.
- b. Complete demolition activities to ensure there is no interruption in utility service. Shutdowns for utilities will need to be coordinated in advance with the Palombo Group and the owner.
- c. Removal of items not specifically called out to be salvaged but may be of use to the owner shall be turned over to the owner. If the owner does not want them, they shall be legally disposed of.
- d. Various spaces within the documents are scheduled for complete renovations while other locations have limited renovations to support proposed HVAC system and therefore will require more extensive protection of existing items to remain. All contractors are to be mindful of the spaces they are working within. The Mechanical Work contractor is responsible for the repair of any items damaged by their work during construction. Any item that is not specifically indicated to be removed by another trade shall be removed by the Mechanical construction contractor.
- e. This contractor shall pay particular attention to “AA” drawings and specific key notes on various other drawings not specifically indicated on “M” series drawings for various impacts with scheduled demolition work. Specifically related to the 2<sup>nd</sup> floor Area 1 where existing UV’s & FTR are to be removed from ACM plaster walls, the process for this shall be as follows;

- 1) The MEP contractors will drain and disconnect equipment, remove FTR covers and pipe without removing brackets, or any item fixed to plaster wall.
  - 2) The asbestos abatement contractor will remove and dispose. The asbestos contractor will also remove existing FTR backer panel and or attached brackets from the plaster wall and reinstall new backer panel and brackets furnished by the Mechanical contractor in the same location.
  - 3) This Mechanical contractor will then install the remaining FTR piping and covers as scheduled. Any touch up painting and or repairs will be by the General Work contractor.
- f. At all removals by this contract, disturbed areas are to be restored (“patch to match”) or prepared for new scheduled condition unless noted to be done by the General Construction contractor on either the “A” or “S” series drawings. This includes any fire stopping required.
- g. Removal of equipment, ductwork, piping and controls as necessary to perform new work. Removed control valves and control devices shall be turned over to owner if requested. Coordinate removals so as not to interfere with owners daily program. Existing heating system will remain in place until summer 2025. New systems will begin to be installed during spring 2024 and are not expected to operate fully until the following summer 2025.
4. Temporary Facilities:
- a. Provide debris removal for the work of this contract inclusive of self-performed work and any subcontractors or vendors. The General Work contractor will be responsible for providing dumpsters for all trades.
  - b. Provide Temporary Facilities as needed and in conjunction with construction sequencing to allow for completion of new work that may or may not be final system arrangement at the time each sequence of construction is completed.
  - c. Within owner occupied areas, this contractor will be responsible for providing and maintaining heating, cooling, and ventilation equipment to meet SED requirements in the absence of new and or malfunctioning equipment or for whatever reason. Daily program is not to be hindered.
  - d. Within fully renovated rooms, furniture and various loose articles within the room will be removed by others to provide access to the work area for construction. In rooms where limited work is performed such as HVAC and plumbing fixture replacements, furniture and various loose articles will be cleared a minimum of 6’ away from the intended work areas by others. Poly sheeting is to be installed & maintained to protect all furniture & loose items during the course of the work.
  - e. See section 1.9A 4c of this specification for additional information on available temporary power for construction.

- f. Provide Temporary Facilities indicated as work of this contract in Division 1 Section 015000, “Temporary Facilities and Controls”.
5. Construction:
- a. Mechanical contractor is directed to review the Construction Sequence Plan and Milestone bid schedule to have a comprehensive understanding of completion and turnover dates for each area. Work in each area must be complete prior to moving onto another area.
  - b. Mechanical contractor is to provide their own rough openings / penetrations in walls and floors for duct and piping complete with appropriate sleeves and firestopping as part of their own Prime Contract unless specifically shown within the “AD/A” or “S” series drawings which would be under the General Construction Contract. Where access above ceiling is required to complete new work in a location not scheduled for full or partial ceiling replacement or where mechanical work needs to happen out of sequence to keep schedule or for required investigative purposes, this contractor shall assume removal, reinstallation, or replacement of ceiling tiles to complete their work.
  - c. Provide all new Mechanical equipment as indicated by the contract documents. **Immediate** submittals and shop drawings for equipment in sequence 1 for the proposed library and sequence 2 for new nurse and main office area will be required within **7 calendar days** from receipt of **Notice of Award**. The balance of equipment should be submitted no later than **30 calendar days after Notice of Award**. It shall be understood that most equipment installed will not be functional until the summer of 2025 due to required power upgrades and shall carry a warranty based on start-up in 2025 and **NOT** when delivered to site. The standard warranty should begin when the unit is commissioned and operational. Equipment shall be installed per schedule “ready” to operate regardless of scheduled start up schedule.
  - d. By Alternate #5, this contractor shall provide all equipment per the equipment scheduled on Drawing PES M901 and as specified.
  - e. Provide new ductwork, fire dampers, sound traps, exhaust fans, ducted coils, louvers, grilles / diffusers, insulation, acoustical lining, and access doors as required and indicated by contract documents. Existing duct work that is incorporated into new work shall be cleaned prior to being put in use. Specific to louvers within exterior walls, this contractor shall coordinate with the General contractor who will furnish and install all exterior wall louvers.
    - a. Provide new hot water S&R piping, hangers, insulation, pumps, valves, auto vents, fin tube radiation, vertical pipe enclosures, air separator, expansion tank, heat exchanger and glycol management system. Provide all refrigerant piping, condensate pumps, insulation, control boxes and pipe portals for installation of new work. All piping shall be complete and functional systems to meet design intent.
    - b. Provide insulation, labeling, tagging etc of newly installed or modified piping, ductwork, valves, and equipment.

- c. Provide new HVAC controls including but not limited to design, engineering, coordination, labor, controls equipment, components, hardware, software and services as required for a complete BACnet Building Automation System (BAS), to perform all functions and sequences of operations as listed within the contract documents. New system provided under this contract must be compatible with the owners current BMS system by Energy Management of Facilities, Inc. (EMF). Removal of existing controls & components where new controls and components are scheduled shall be coordinated as such to not allow for any interruption of use by the owners daily program. At no time shall an HVAC system be inoperable or not functioning properly for any reason during owner occupancy.
  - d. Provide new stand-alone mechanical systems inclusive of all labor, components, controls, electrical and low voltage interconnect wiring, associated piping, duct as required by the contract documents AND by the manufacturer to ensure a fully operational stand-alone system. Additional BMS controls to monitor stand-alone systems shall also be included. Stand-alone systems include but are not limited to Variable refrigerant flow split systems.
  - e. Provide General Commissioning, Testing, Adjusting and Balancing of equipment per the contract documents. Upon completion of these items, provide appropriate owner training for all equipment and controls system per the contract documents.
  - f. Provide contractor filters for startup and final replacement filters and duct cleaning as required by contract documents prior to TAB and or owner occupancy.
  - g. This contractor shall supply access doors for HVAC components where required to allow future access to the system. Access doors will be installed by the General construction contractor.
  - h. Furnish equipment disconnects, VFD's and motor controllers for all equipment to the Electrical contractor for installation and wiring.
  - i. Provide penetration fire stopping at all HVAC penetrations.
  - j. Pertaining to roof top equipment work and with associated infill and or penetrations, the following procedure will be followed;
    - 1) Layout penetration by Mechanical Contractor.
    - 2) Cutting roof & deck opening and installing necessary blocking for curbs and final patching of roof to maintain warranty will be by the General Construction Work contractor.
    - 3) Furnish timely, any required curbs, rails etc. required for all new equipment to the General Work contractor for installation.
  - k. Any equipment requiring an equipment pad shall be furnished as part of this contract unless noted specifically on "A" or "S" drawings.
6. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.

7. Working hours for this project will be second shift during the school year (4 to 12pm) and standard hours (7 to 3:30pm) during the summer months. Additional overtime work to maintain the schedule will be required as needed.

## **1.9 ELECTRICAL CONSTRUCTION WORK (EC) – CONTRACT No. 33**

A. The Work of the Electrical Construction Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract documents. The Contractor is directed to examine **ALL** drawings and specifications since certain details and/or notes may appear anywhere therein that apply to his/her particular work.

1. This prime contract is defined as, and includes, Drawings and Specifications as indicated by reference, and any other construction operations traditionally recognized as Electrical Construction work.

a. Drawings:

- 1) Cover Sheets
- 2) All “G” and “LS” sheets
- 3) All “EG”, “ES”, “ED” & “E” (Electrical)
- 4) All “C” (Civil), “AA” (Asbestos Abatement), “S” (Structural) “AD”, “A” & “AF” (Architectural), “FS” (Food Service), “DJ”, “PG”, “PD” & “P” (Plumbing) and “MG”, “MD” & “M” (Mechanical) series drawings as it relates to the work of this contract.

b. Specifications:

- 1) Division 0 –Procurement and Contracting Requirement, all Sections.
- 2) Division 1 –General Requirements all Sections.
- 3) Division 2 – Section 024119, Selective Demolition.
- 4) Division 7 – Sections 078413 & 078443, Penetration & joint Firestopping as required for the Work of this Contract.
- 5) Division 23 - All sections as relates to this contract for power connections to equipment.
- 6) Division 26 – Electrical, all sections.
- 7) Division 27 – Communications, all sections
- 8) Division 28 – Security & Fire Alarm, all sections.
- 9) Appendix A – Geotechnical Evaluation – for Reference

2. Coordination:

a. Coordination with the work of all other contractors. Some specific coordination items include but are not limited to;

- 1) MEP work
- 2) Casework
- 3) Food Service Equipment
- 4) Hazardous Material Removals
- 5) Placement of temporary measures to accommodate sequenced work
- 6) Window & Door replacement

- b. There will be **MANDATORY** coordination required from **all** contractors for this project to ensure proper and timely installation of proposed work. If additional work is required for any aspect of work due to lack of coordination, the contractor(s) that caused the issue will be responsible for the costs of any corrective action required. If corrective action is required it must be done in accordance with all local codes having jurisdiction and approved by the Owner, Construction Manager & Architect prior to starting.
  - c. This project is sequenced in a very specific order. Each contractor shall plan ahead, investigate and coordinate their work and the work of other trades accordingly. Failure to actively participate in this required coordination will have a negative result.
  - d. The electrical contractor shall review ALL other drawings and various equipment submittals related to HVAC, Food Service etc. Notify Architect and construction manager immediately if there any differences.
3. Demolition:
- a. Removal and disposal of all items as indicated by contract documents inclusive of all existing items and/or equipment not shown if impacting work to be demolished.
  - b. Disconnect all mechanical equipment shown to be removed in each sequence of work. This contractor shall notify the Construction Manager prior to disconnect.
  - c. Disconnect, remove, replace or re-wire various interior light fixtures as indicated by contract documents.
  - d. Disconnect various ceiling supported devices for ceiling removal / replacement as indicated by contract documents. These items include but are not limited to lights, speakers, occupancy sensors, FA devices, WAP's etc.
  - e. Various spaces within the documents are scheduled for complete renovations while other locations have limited renovations to support proposed HVAC system and therefore will require more extensive protection of existing items to remain. All contractors are to be mindful of the spaces they are working within. The Electrical Work contractor is responsible for the repair of any items damaged by their work during construction. Any item that is not specifically indicated to be removed by another trade shall be removed by the electrical construction contractor.
  - f. Complete demolition activities to ensure there is no interruption in utility service. This contractor should coordinate removals prior to commencing work to assure other portions of the building that need to remain active are not affected by removal activities. This is particularly important when working with the fire alarm system. Shutdowns for utilities will need to be coordinated in advance with the Palombo Group and the owner.
  - g. All cutting and patching necessary for work of this contract including layout, sleeves, coring, debris removal, saw cuts, drywall, grouting, painting, ceiling removal and replacement.

4. Temporary Facilities:
  - a. Provide debris removal for the work of this contract inclusive of self-performed work and any subcontractors or vendors. The General Work contractor will be responsible for providing dumpsters for all trades.
  - b. Provide Temporary work as needed and in conjunction with construction sequencing to allow for completion of new work that may or may not be final system arrangement at the time each sequence of construction is completed. New panels scheduled for install in the early sequences of work are fed from the new switchgear which is being replaced in the last sequence and therefore should be installed per plan and temporary measures shall be made within mechanical and or electrical rooms to power these panels.
  - c. Provide temporary power during all renovation work including lighting sufficient to allow work to safely occur in each space and in accordance with minimum OSHA requirements. Temporary power for construction should be limited to (1) each 20-amp quad receptacle box to serve approximately every 800 square feet of space within each renovated area but no less than 1 per room / space. Any contractors needing additional power for specialty tools or equipment beyond the above will need to provide their own power.
  - d. This contractor shall arrange for a backup generator sufficient in size to provide continuous power to kitchen equipment, IT server closets and construction power during the removal and replacement of the new transformer summer 2024 and electrical switchgear in the summer of 2025.
  - e. Provide Temporary Facilities indicated as work of this contract in Division 1 Section 015000, “Temporary Facilities and Controls”.
5. Construction:
  - a. Electrical contractor is directed to review the Construction Sequence Plan and Milestone bid schedule to have a comprehensive understanding of completion and turnover dates for each area. Work in each area must be complete prior to moving onto another area.
  - b. Electrical contractor to provide their own rough openings / penetrations in walls and floors complete with appropriate sleeves, firestopping and “patch to match” finish as part of their own Prime Contract. Where access above ceiling is required to complete new work in a location not scheduled for full or partial ceiling replacement or where electrical work needs to happen out of sequence to keep schedule or for required investigative purposes, this contractor shall assume removal, reinstallation, or replacement of ceiling tiles to complete their work.
  - c. Provide removal of existing and installation of new utility company supplied transformer. Provide transformer vault, disconnect & reconnection of primary feeders and new secondary feeders terminated inside building. The General Work contractor will provide all exterior trenching including bedding and backfill for new vault and secondary feeders. The electrical contractor shall layout proposed

work and provide conduit and detectable marker tape. All work described above shall be scheduled to start early **summer 2024**.

- d. Provide new distribution switchgear inclusive of modifications to existing feeders to extend and connect as necessary. Connect new secondary feeders to proposed switchgear. Provide new panels, feeders, branch circuits and panel replacements as indicated by contract documents. Coordinate all shutdowns with utility company, owner and CM as necessary so there is no disruption to owners' daily program or construction progress. All work described herein shall be scheduled to start early **summer 2025**. It should be noted that the switchgear is presumed to have asbestos containing materials and will require abatement by an abatement contractor as part of the General Construction scope of work. The process for this shall be as follows:
  - 1) The electrical contractor will be responsible to de-energize the gear and remove all wire / circuits.
  - 2) The abatement contractor will abate the switchgear in place over a maximum **4-day** timeframe.
  - 3) Upon completion of abatement, the electrical contractor shall remove and dispose of the remaining switchgear and replace with new scheduled switchgear.
- e. Provide wiring connections to all new equipment. Electrical contractor should review Mechanical equipment schedules and approved submittals to understand what equipment will be furnished (by MC) with disconnect switches, motor starters, VFD's etc. for installation as part of the work of the electrical contract. Any other required disconnects, motor starters, VFD's NOT indicated on Mechanical equipment schedule will be provided under the work of this contract.
- f. Provide wiring connections to all food service equipment inclusive of any ancillary items required by code and or as required by manufacturer to ensure proper operation of equipment.
- g. Provide interior lighting, circuits, switching, lighting controls, sensors, daylight harvesting, and emergency lighting as indicated on contract documents.
- h. Provide all necessary conduit, J hooks, wiring, termination, and testing of IT, public address & security systems. Equipment including but not limited to WAP's, security cameras and switches. Patch cables will be furnished and installed by the owner. However, this contractor will be responsible for coordinating, connecting and testing its work with the owner or the owner's vendor.
- i. Provide all work required (existing & new devices) to the Fire Alarm system. New fire alarm devices to be compatible with existing fire alarm system inclusive of all ancillary items required for a complete working system as indicated by contract documents. Also include removal & reinstallation and or replacement of fire alarm devices where ceiling work is scheduled. Electrical contractor to note that fire alarm system must remain active during school hours. Devices taken offline in each renovation area should be coordinated with fire alarm vendor to be removed and or added to the system via the head end, software, programming, or whatever means are necessary to ensure the system remains active for occupied areas of the building throughout construction.

- j. This contractor shall supply access doors for electrical components where required to allow future access to the system. Access doors will be installed by the General construction contractor.
  - k. Provide penetration fire stopping at all electrical penetrations.
  - l. Provide owner training / commissioning of equipment and various systems.
  - m. Provide all electrical permits, testing and inspections along with associated fees to satisfy authorities having jurisdiction.
6. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.
7. Working hours for this project will be second shift during the school year (4 to 12pm) and standard hours (7 to 3:30pm) during the summer months. Additional overtime work to maintain the schedule will be required as needed.

#### **1.10 PLUMBING CONSTRUCTION WORK (PC) – CONTRACT No. 34**

- A. The Work of the Plumbing Construction Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract documents. The Contractor is directed to examine **ALL** drawings and specifications since certain details and/or notes may appear anywhere therein that apply to his/her particular work.
- 1. This prime contract is defined as, and includes, Drawings and Specifications as indicated by reference, and any other construction operations traditionally recognized as Plumbing Construction work.
    - a. Drawings:
      - 1) Cover Sheet
      - 2) All “G” and “LS” sheets
      - 3) All “PG”, “PD” & “P” series Drawings (Plumbing)
      - 4) All “C” (Civil), “AA” (Asbestos Abatement), “S” (Structural) “AD”, “A” & “AF” (Architectural), “FS” (Food Service) and “DJ”, “MG”, “MD” & “M” (Mechanical) series drawings as it relates to the work of this contract.
    - b. Specifications:
      - 1) Division 0 – Procurement and Contracting Requirement, all Sections.
      - 2) Division 1 – General Requirements all Sections.
      - 3) Division 2 – Section 024119, Selective Demolition.
      - 4) Division 7 – Sections 078413 & 078443, Penetration & joint Firestopping as required for the Work of this Contract.
      - 5) Division 22 – Plumbing, all sections.
      - 6) Appendix A – Geotechnical Evaluation – for Reference

2. Coordination:

- a. Coordination with the work of all other contractors. Some specific coordination items include but are not limited to;
  - 1) MEP work
  - 2) Casework
  - 3) Food Service Equipment
  - 4) Hazardous Material Removals
  - 5) Placement of temporary measures to accommodate sequenced work
  - 6) Window & Door replacement
- b. There will be **MANDATORY** coordination required from **all** contractors for this project to ensure proper and timely installation of proposed work. If additional work is required for any aspect of work due to lack of coordination, the contractor(s) that caused the issue will be responsible for the costs of any corrective action required. If corrective action is required it must be done in accordance with all local codes having jurisdiction and approved by the Owner, Construction Manager & Architect prior to starting.
- c. This project is sequenced in a very specific order. Each contractor shall plan ahead, investigate and coordinate their work and the work of other trades accordingly. Failure to actively participate in this required coordination will have a negative result.
- d. The Plumbing contractor shall review ALL other drawings and various equipment submittals, in particular the new kitchen layout and Food Service equipment. Investigative work will be required. Notify Architect and construction manager immediately if there any differences.

3. Demolition:

- a. Removal and disposal of all items as indicated by contract documents inclusive of all existing items and/or equipment not shown if impacting work to be demolished.
- b. Complete demolition activities to ensure there is no interruption in utility service. Shutdowns for utilities will need to be coordinated in advance with the Palombo Group and the owner.
- c. Various spaces within the documents are scheduled for complete renovations while other locations have limited renovations to support proposed HVAC & domestic piping systems and therefore will require more extensive protection of existing items to remain. All contractors are to be mindful of the spaces they are working within. The Plumbing Work contractor is responsible for the repair of any items damaged by their work during construction. Any item that is not specifically indicated to be removed by another trade shall be removed by the Plumbing Construction contractor.
- d. All cutting and patching necessary for work of this contract including layout, sleeves, coring, debris removal, saw cuts, drywall, grouting, painting, ceiling removal and replacement.

4. Temporary Facilities:
  - a. Provide debris removal for the work of this contract inclusive of self-performed work and any subcontractors or vendors. The General Work contractor will be responsible for providing dumpsters for all trades.
  - b. Provide Temporary Facilities as needed and in conjunction with construction sequencing to allow for completion of new work that may or may not be final system arrangement at the time each sequence of construction is completed.
  - c. See section 1.9A 4c of this specification for additional information on available temporary power for construction.
  - d. Provide Temporary Facilities indicated as work of this contract in Division 1 Section 015000, “Temporary Facilities and Controls”.
  
5. Construction:
  - a. Plumbing contractor is directed to review the Construction Sequence Plan and Milestone bid schedule to have a comprehensive understanding of completion and turnover dates for each area. Work in each area must be complete prior to moving onto another area.
  - b. Plumbing contractor is to provide their own penetrations in walls and floors as part of their own Prime Contract unless noted specifically by the General Contractor on the AD/A & S series drawings. All penetrations for the work of this contract require appropriate sleeves, firestopping, and “patch to match” finish. Where access above ceiling is required to complete new work in a location not scheduled for full or partial ceiling replacement or where plumbing work needs to happen out of sequence to keep schedule or for required investigative purposes, this contractor shall assume removal, reinstallation, or replacement of ceiling to complete their work.
  - c. Provide below grade piping from POC to new scheduled work. The General Construction work contractor will be responsible for all below grade excavation, bedding and corresponding backfill as well as the removal & replacement of the concrete slab. The Plumbing contractor will be responsible for layout, pipe installation, and assuring that risers remain at proper elevation and location during concrete slab pour(s). Work associated with connections to existing systems must be done off hours to avoid interruptions to the owner’s daily program.
  - d. Provide above grade piping, valves, wall clean outs, roof vents, Grease interceptor, sleeves, and hangers as indicated by the construction documents.
  - e. Provide testing of newly installed piping to the satisfaction of the utility owner, contract documents and authorities having jurisdiction.
  - f. Provide lavatories, water closets, urinals, and sinks in various areas as indicated by contract documents. This work is inclusive of all “in wall” supports, blocking, piping connections and hardware / fixtures required for complete operational units.

- g. Provide piping specialties including but not limited to floor drains, cleanouts and floor sinks.
  - h. Provide roof vents and frost proof hydrants as indicated by contract documents. The process for making Roof penetrations will be as follows.
    - 1) Layout penetration by Plumbing Contractor.
    - 2) Cutting roof & deck opening, installing necessary blocking or reinforcement and final flashing and patching of roof to maintain warranty will be by the General Construction Work contractor.
    - 3) Installation of these items by Plumbing contractor.
  - i. Provide support framing for all plumbing related systems and or equipment.
  - j. Provide all insulation, painting, labeling, testing, balancing and disinfection of new and modified plumbing systems.
  - k. Furnish necessary access doors for plumbing system access to General contractor for installation.
  - l. Provide owner training and commissioning of plumbing systems and equipment.
6. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.
7. Working hours for this project will be second shift during the school year (4 to 12pm) and standard hours (7 to 3:30pm) during the summer months. Additional overtime work to maintain the schedule will be required as needed.

#### 1.11 ADDITIONAL SCOPING – EACH PRIME CONTRACT

- A. Definition of Extent of Prime Contract Work; Additional Prime Contract Work not previously described.
  - 1. All Prime Contractors are responsible for reviewing plans and specs as it pertains to their scope of work mentioned in the contract documents. Scopes of work referenced may be found in multiple locations throughout the plans and specifications.
  - 2. Local custom and trade union jurisdictional settlements do not control the scope of work included in each prime contract. When a potential jurisdictional dispute or similar interruption of work is first identified or threatened, the affected prime contracts shall promptly negotiate a reasonable settlement to avoid or minimize the pending interruption and delays.
  - 3. All OSHA safety and hazardous materials regulations will be enforced on this project. All Contractors must submit a safety program, a hazardous materials program, (all required data must be maintained at the job site) and attend safety meetings. Toolbox talks will

be required from each prime contractor weekly and will be required for progress payments.

4. All Contractors are responsible for any debris caused by their work. Daily clean-up and disposal is required by each Contractor for the periods which that Contractor is performing work on site, on a day selected by the Construction Manager. Each trade will assign at least one person to the weekly clean-up; the name of this person is to be submitted to the Construction Manager. Any Contractor not providing personnel will be “back-charged” for labor provided by the Construction Manager.
5. Each prime contractor is responsible for cutting and patching as required to complete their work unless noted otherwise. Review contract documents for all requirements associated with cutting and patching. All exposed finishes must be ready to receive paint, etc.; all concealed openings (piping, ductwork, conduit, etc.) must be repaired to comply with specified wall or deck conditions.
6. To maintain project schedule, multiple crews and shifts may be necessary. It will be each prime contractor’s responsibility to provide adequate staff. Each crew is to be furnished with its own supervision, tools, and other means necessary to maintain the Project Schedule.
7. Supervision: The proposed project manager and field superintendent for the project is to have at least five years experience in the proposed position. Each successful bidder shall submit resumes to the Construction Manager for the proposed project manager and field superintendent for the project. This information will be reviewed with the Owner, Architect and Construction Manager for approval. Should the Project Manager and/or Superintendent prove unqualified for the position at any point in the project, the Construction Manager shall issue a letter stating that the person is to be removed from involvement in the project. Action by the contractor must be made within seven working days of receipt of such letter.
8. Each prime contractor shall return areas disturbed by their work activities to condition prior to start of work.
9. Each prime contractor shall maintain within its field office a complete and current set of Contract Documents (including any Addenda, Change Orders, and Modifications thereto), approved shop drawings, samples, color schedules and other data pertinent to the Project.
10. Each prime contractor is to provide **photo and video documentation of existing conditions** as indicated by the contract documents. Submit to the Construction Manager a list of damaged areas (i.e. plaster walls, woodwork, equipment etc.) prior to commencing work. Any damaged areas not identified prior to the work shall be the responsibility of the contractor / contractors working in that area.
11. **Coordination Drawings will be required.**
  - a. **HVAC:** The Mechanical contractor, contract 32 will create drawings within 30 days from award of project. These drawings will then be forwarded to all other prime contractors in an order chosen by the MC. Each contractor will have 3 business days to provide necessary input and will be penalized for nonparticipation.

- b. **Food Service:** The General construction work contractor, contract 31 will provide DRAFT food service equipment shop drawings within 45 days from award of project. These drawings will then be forwarded to all other prime contractors in an order chosen by the GC. Each contractor will have 3 business days to provide necessary input and will be penalized for nonparticipation. The GC shall then incorporate all prime contractor feedback inclusive of field measurements and complete a final set of shop drawings to be submitted for approval.
  - c. **Casework:** The General construction work contractor, contract 31 will provide DRAFT casework shop drawings within 30 days from award of project. These drawings will then be forwarded to all other prime contractors in an order chosen by the GC. Each contractor will have 3 business days to provide necessary input and will be penalized for nonparticipation. The GC shall then incorporate all prime contractor feedback inclusive of field measurements and complete a final set of shop drawings to be submitted for approval.
12. Unless a specific item or material is noted as to remain the Owner's property or to become the Contractor's property (or similar words), any material having salvage or reuse value shall be inspected by the Owner. If the Owner wishes to retain this material, it shall be turned over to him on the site where directed. If the Owner designates the material as scrap, it shall become the Construction Manager's property. Material having salvage value shall be carefully removed. If the Construction Manager designates the material as scrap, it shall become the contractor's property and removed from the site by the contractor.
13. All on site personnel shall have a visible photo ID always displayed. Those without will be removed from site at once. If the same individual fails to have the ID a second time they will be removed from the site and not be allowed back.

#### 1.12 TESTING

- A. Required testing and test procedures are indicated under each Division of the Technical Specifications. Other testing shall be performed per generally accepted standards.
- B. The Architect shall reserve the right to require additional information as is deemed necessary to fully evaluate testing results.

#### 1.13 WORK SEQUENCE

- A. The Work will be conducted to provide the least possible interference to the activities of the Owner's personnel.
- B. A Milestone Bid schedule and specific Construction Sequencing has been established for this project (see attached at the end of this section) which must be followed.
- C. The construction manager superintendent must be on site when work is being performed. **If a contractor fails to maintain the progress as indicated by the milestone schedule by no other fault but its own and requires overtime, weekends or holidays to complete their work; the contractor shall arrange with the Construction Manager 24 hours in advance and pay for a Construction Manager's superintendent at \$115.00 per hour.** If the cause for delay is multi-contract, then the costs shall be distributed evenly among contracts.

- D. Coordination of any utility and/or power interruption must be done with the Construction Manager. Shutdowns must occur during off-hours and on days when the building is not occupied by the owner.
- E. Construction access to the site shall be limited to those designated for contractor's personnel, equipment and deliveries by the Owner. Contractors' staging, parking and storage shall be coordinated with the staging plan attached at the end of this section and the Construction Manager.
- F. Each Contractor shall inspect the site and review the AHERA report on file for the presence of asbestos. Unless otherwise noted, there will be asbestos containing material in areas that will require work to take place in the vicinity of, around and/or next to.

#### 1.14 OCCUPANCY REQUIREMENTS

- A. The General Construction Work Contractor (Contract 031) shall provide indoor air quality management as specified by the Department of Labor and OSHA and as determined by the Construction Manager.
  - 1. Provide an exhaust air system for the project indoor areas that could produce fumes, VOC off-gassing, gasses, dusts, mists, or other emissions.
  - 2. Exhaust air system for the project areas that could produce emissions shall not be utilized.
  - 3. Provide temporary partitions and air seals to prevent the migration of airborne contaminants from unoccupied areas to occupied areas when applicable.
- B. Quality Assurance:
  - 1. Maintain a negative pressure between the work area and the space surrounding the work area.
  - 2. Before the start of work, submit a design / plan for the exhaust air system. Do not begin work until approval of the Owner or construction manager is obtained. This design / plan shall minimally include the following;
    - a. The number of machines required.
    - b. Location of the machines in the work space.
    - c. Description of the methods used to test air flow and pressure differential.
- C. System operation:
  - 1. A sufficient quantity of exhaust fans in existing window openings or other approved locations shall be operated in accordance with the following applicable standards.
  - 2. Exhaust air system shall operate for a minimum of 72 hours after work is completed, or until all materials have cured sufficiently as to stop out gassing of fumes or odors and area has been ventilated to remove all detectable traces of odors and fumes.
  - 3. Maintain twenty-five (25) feet clearance from all temporary exhaust outlets to all active building outdoor air intakes.

#### 1.15 PROJECT MILESTONE SCHEDULE

- A. See the milestone bid schedule and construction sequence plan under **Division 003113**. It is to be understood that the milestone bid schedule may not be inclusive of all items of work required nor does it spell out each item of work that may be required. It is the contractor's responsibility to carry out all work required within the dates set forth by the Milestone schedule and sequence plan. The critical milestones of this schedule are the start and completion dates of each location. Failure to meet turnover dates will greatly affect the work following.
- B. All Prime Contractors are required to submit a detailed submittal schedule based on the milestone dates to the Construction Manager for review and comment no later than 2 weeks after a Notice of Award for the work is issued.
- C. The General Construction Work Contract (Contract 031) is required to submit a detailed DRAFT construction schedule based on the bid milestone schedule no later than 1 week after the initial project kick off meeting. The remaining prime contractors (Contracts 032 through 034) shall simultaneously work on their construction durations and provide input to the General Construction contractor for input into the DRAFT schedule. The General Construction work Contractor will then have 5 business days to incorporate all comments and produce a comprehensive project schedule to be submitted to the Construction Manager for review and comment within 5 business days from date of receipt. The General Construction Work Contractor shall then compile into ONE MASTER SCHEDULE for the project. This Master schedule shall be 100% completed prior to work starting and shall be maintained and updated monthly.
- D. Any prime contractor that does not actively participate with master schedule updates and required 2 week look ahead schedules within stipulated timeframes will be subject to a monetary reduction in contract.

1.16 ATTACHMENTS

- A. Project Staging Plan

END OF SECTION 01 12 00

## SECTION 011400 - WORK RESTRICTIONS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes administrative provisions for Project site work restrictions including, but not limited to, the following;
  - 1. Occupancy requirements.
  - 2. Use of premises.
  - 3. Area available for use.
  - 4. Travel not obstructed.
  - 5. Sequencing.
  - 6. Identification badges.
  - 7. Smoking policy.
  - 8. Product delivery, storage and handling.

#### 1.3 OCCUPANCY REQUIREMENTS

- A. Owner Occupancy: Owner will occupy site and existing building during entire construction period. 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.
  - 1. Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied before Owner occupancy.
    - a. The occupied portion of any school building shall always comply with the minimum requirements necessary to maintain a certificate of occupancy.
  - 2. Obtain a Certificate of Occupancy from authorities having jurisdiction before Owner occupancy.
  - 3. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of building.

#### 1.3 USE OF PREMISES

- A. Use of Site: Limit use of premises to work in areas indicated. Confine operations to areas within Contract limits indicated. Do not disturb portions of site beyond areas in which the Work is indicated. No signs or advertising are allowed except as approved by Architect or as required by laws, regulations or the Prime Contractor's protection as persons and property.
1. Limits: Prime Contractors shall comply with Owner occupancy, and phasing requirements if any.
    - a. Prime Contractors shall limit operations including storage of materials and prefabrication to areas within the Contract Limit Lines unless otherwise permitted by the Architect at the Owner's option.
      - 1) All construction material shall be stored in a safe and secure manner.
    - b. Prime Contractors shall limit use of the premises for Work and for storage, to allow for:
      - 1) Owner occupancy.
      - 2) Work by other Prime Contractors.
  2. Lock automotive-type vehicles such as passenger cars and trucks and other types of mechanized and motorized construction equipment when parked and unattended, to prevent unauthorized use. Do not leave such vehicles unattended, with engine running or ignition key in place.
- B. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.
1. Keep all areas free from accumulation of waste material, rubbish or construction debris on daily basis.
  2. Prime Contractors shall provide temporary closures at all openings in outside walls to maintain weather protection and security as directed by Architect.
  3. Open fires are not permitted.
  4. Prime Contractors shall be responsible for control of chemical fumes, gases, and other contaminants produced by welding, gasoline or diesel engines, roofing, paving, painting, etc. to ensure they do not enter occupied portions of the building or air intakes.
  5. Prime Contractors shall be responsible to ensure that activities and materials which result in off-gassing of volatile organic compounds such as glues, paints, furniture, carpeting, wall covering, drapery, etc., are scheduled, cured or ventilated in accordance with manufacturers recommendations before a space can be occupied.
  6. Large and small asbestos abatement projects as defined by 12NYCRR56 shall not be performed while that area of the building is occupied.

7. Construction and maintenance operations shall not produce noise in excess of 60 dba in occupied spaces or shall be scheduled for times when the building or affected building spaces are not occupied or acoustical abatement measures shall be taken.
- C. Prime Contractors shall coordinate the use of premises with the Owner and shall move any stored products under Prime Contractor's control, including excavated material, which interfere with operations of the Owner or separate contractors, at no expense to Owner.
  - D. Prime Contractors shall assume full responsibility for the protection and safekeeping of products under Contract, stored on the site and shall cooperate with the Owner to insure security for the Owner's property.
    1. Fencing with lockable gates shall surround construction supplies or debris of construction activities.
      - a. Gates shall always be locked unless a worker is in attendance to prevent unauthorized entry.
    2. During exterior renovation work, overhead protection shall be provided for any sidewalks or areas immediately beneath the work site or such areas shall be fenced off and provided with warning signs to prevent entry.
  - E. Lockout Tagout Policy: Each Prime Contractor shall follow this policy in addition to requirements of regulating authorities. Prime Contractors shall not circumvent or complicate Lockout Tagout Policy.
    1. At progress meetings, each Prime Contractor shall indicate extent of their Work with Owner's representative for the period up to the next progress meeting.
      - a. Each Prime Contractor shall identify all valves, disconnect devices or other devices requiring manipulation or turn off/on to District's Superintendent of Buildings and Grounds.
      - b. District's maintenance personnel will manipulate devices per Superintendent's directive only.
      - c. District's maintenance personnel will use Lockout Tagout procedure on all valves, disconnect devices and other devices.
      - d. Devices not coordinated during progress meeting shall be coordinated through Architect. Provide 48-hour notice of required action.
  - F. Protection of Equipment Material: Each Prime Contractor shall assume full and complete responsibility for protection and safekeeping of products and equipment stored and install at Project.

- G. Each Prime Contractor shall obtain and pay for the use of additional storage or work areas needed for operations.

#### 1.4 AREA AVAILABLE FOR USE

- A. Prime Contractors shall confine operations to those portions of the Owner's property, and to the right-of-ways or easements, temporary or permanent, acquired or designated for the work of the Contract as shown on the Drawings. Private property adjacent the Site shall not be entered upon or used by the Prime Contractors for any purpose without the written consent of the Owner thereof. A copy of such consent shall be filed with the Construction Site Coordinator.
- B. Separation of Construction Areas from Occupied Space: Construction areas which are under the control of a contractor and therefor not occupied by Owner shall be separated from occupied areas. Provisions shall be made to prevent the passage of dust and contaminants into occupied parts of the building. Periodic inspection and repairs of the containment barriers must be made to prevent exposure to dust or contaminants. Gypsum board must be used in exit ways or other areas that require fire rated separation. Heavy-duty plastic sheeting may be used only for a vapor, fine dust or air infiltration barrier, and shall not be used to separate occupied spaces from construction areas.
  - 1. Assign a specific stairwell or elevator for construction worker use during hours of Owner operation. Do not use corridors, stairs or elevators being occupied by Owner.
  - 2. Use enclosed chutes to remove large amounts of debris.
  - 3. Do not move debris through occupied spaces of the building.
  - 4. Do not drop or throw material outside walls of building.
- C. Clean all occupied parts of the building at the close of each workday. Maintain required health, safety and educational capabilities at all times during construction operations in cooperation with the Owner's requirements.

#### 1.5 TRAVEL NOT OBSTRUCTED

- A. Driveways and Entrances: Keep driveways 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.
  - 1. Schedule deliveries to minimize use of driveways and entrances.
  - 2. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

- B. Each Prime Contractor shall not needlessly hinder or inconvenience travel on any public or private way, nor wholly obstruct a traveled way, and shall provide plain, appropriately worded signs, adequate barricades and lighting announcing such obstruction at the nearest cross streets, and at each end of the obstructed portion, directing traffic to and along an approved detour.

#### 1.6 SEQUENCING

- A. Prime Contractors shall assume full responsibility for Project Sequencing requirements. Coordinate with Architect/Construction Manager, and Owner the following:
  - 1. Deliveries.
  - 2. Testing and inspection agency requirements.
- B. Notify Architect of Construction Schedule modifications in writing at each progress meeting per Division 1 Section "Project Management and Coordination."

#### 1.7 IDENTIFICATION BADGES

- A. General: All construction personnel of the Site shall wear photo-identification badges. Securely attach badge to outer clothing and/or for easy recognition of Site personnel name and company.
- B. Each Prime Contractor shall supply to its employees and other retained construction personnel, an identification badge. Include company name, Owner's name and provide a number on each badge.
  - 1. Prime Contractor shall maintain a listing of the badge numbers and the associated employee's name to which the corresponding badge number is assigned.
- C. Maintain a running list of badges, submitted to the Architect/Construction Manager.

#### 1.8 SMOKING POLICY

- A. Use of tobacco related products at all Work sites, job offices, and parking lots and within fifty (50) feet of Owner's property is prohibited by laws and regulations. Use of tobacco related products will result in removal from Owner's property, and potentially termination of employment on this project.
  - 1. Tobacco related products include electronic cigarettes and similar apparatus.
- B. This policy shall apply to all persons entering a Work site or Owner's property including, but not limited to, part-time personnel, consultants, and employees of other companies or Prime Contractor's employees, sub-consultants, installers, etc., working on Project site.

## PART 2 – PRODUCTS

### 2.1 PRODUCT DELIVERY STORAGE AND HANDLING

- A. Deliver, store and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturers written instructions.
1. Schedule delivery to minimize long-term storage at Project site and to prevent over crowding 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 instruction for handling, storing, unpacking, protecting, and installing.
  4. Prime Contractor to inspect products on delivery to ensure correct products have been delivered and are in compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  5. Store materials in a manner that will not endanger Project structure.
  6. Store products to allow for inspection and measurement of quantity or counting of units.
  7. Store products that are subject to damage by the elements, under cover in a weather tight enclosure above ground, with ventilation adequate to prevent condensation.
  8. Comply with product manufacturer's written instruction for temperature, humidity, ventilation, and weather-protection requirements for storage.
  9. Protect stored products from damage.

## PART 3 – EXECUTION (Not Used)

END OF SECTION 011400

SECTION 011410 - NYSED 155.5 UNIFORM SAFETY STANDARDS FOR SCHOOL CONSTRUCTION  
AND MAINTENANCE PROJECTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies requirements of 8NYCRR155.5, Uniform Safety Standards for School Construction and Maintenance Projects that are required in construction documents. The Contractor shall comply with these requirements in addition to any and all similar requirements in the Contract Documents.

- 1. Occupied portions of the building.
- 2. General safety and security standards.
- 3. Separation of construction areas from occupied spaces.
- 4. Control of noise.
- 5. Control of contaminants.
- 6. Control of volatile organic compounds.
- 7. Asbestos abatement projects.
- 8. Lead remediation projects
- 9. Temporary heat of occupied spaces

- B. These are requirements of section 155.5 of the Commissioner of Education's regulations to protect the health and safety of occupants of the building during construction. This is not the text of the regulations

- C. Related Sections include the following:

1.3 Other Division 01 Sections as appropriate.

## PART 2 - PRODUCTS (NOT USED)

## PART 3 - EXECUTION

### 3.1 OCCUPIED PORTIONS OF THE BUILDING

- A. The occupied portion of any school building shall always comply with the minimum requirements necessary to maintain a certificate of occupancy. In addition, the following shall be strictly enforced and cooperated with:
  - 1. No smoking is allowed on public school property, including construction areas.
  - 2. During construction daily inspections of district occupied areas shall be conducted by school district personnel to assure that construction materials, equipment or debris do not block fire exits or emergency egress windows.
  - 3. Proper operation of fire extinguishers, fire alarm, and smoke/fire detection systems shall be maintained throughout the project.

### 3.2 GENERAL SAFETY AND SECURITY STANDARDS FOR CONSTRUCTION PROJECTS

- A. All construction materials shall be stored in a safe and secure manner.
- B. Fences around construction supplies or debris shall be maintained.
- C. Gates shall always be locked unless a worker is in attendance to prevent unauthorized entry.
- D. During exterior renovation work, overhead protection shall be provided for any sidewalks or areas immediately beneath the work site or such areas shall be fenced off and provided with warning signs to prevent entry.
- E. Workers shall be required to wear photo-identification badges at all times for identification and security purposes while working at occupied sites."

### 3.3 SEPARATION OF CONSTRUCTION AREAS FROM OCCUPIED SPACES

- A. Separation of construction areas from occupied spaces. Construction areas which are under the control of a contractor and therefore not occupied by district staff or students shall be separated from occupied areas. Provisions shall be made to prevent the passage of dust and contaminants into occupied parts of the building. Periodic inspection and repairs of the containment barriers must be made to prevent exposure to dust or

contaminants. Gypsum board must be used in exit ways or other areas that require fire rated separation. Heavy duty plastic sheeting may be used only for a vapor, fine dust or air infiltration barrier, and shall not be used to separate occupied spaces from construction areas.

1. A specific stairwell and/or elevator should be assigned for construction worker use during work hours. In general, workers may not use corridors, stairs or elevators designated for students or school staff.
2. Large amounts of debris must be removed by using enclosed chutes or a similar sealed system. There shall be no movement of debris through halls of occupied spaces of the building. No material shall be dropped or thrown outside the walls of the building.
3. All occupied parts of the building affected by renovation activity shall be cleaned at the close of each workday. School buildings occupied during a construction project shall maintain required health, safety and educational capabilities at all times that classes are in session.

- B. Temporary partitions for the separation of construction areas from occupied spaces are shown on the Construction Phasing drawings.

### 3.4 CONTROL OF NOISE

- A. Construction and maintenance operations shall not produce noise in excess of 60 dba in occupied spaces or shall be scheduled for times when the building or affected building spaces are not occupied or acoustical abatement measures shall be taken

### 3.5 CONTROL OF CONTAMINATES

- A. The contractor shall be responsible for the control of chemical fumes, gases, and other contaminants produced by welding, gasoline or diesel engines, roofing, paving, painting, etc. to ensure they do not enter occupied portions of the building or air intakes.

### 3.6 CONTROL OF VOLATILE ORGANIC COMPOUNDS

- A. The contractor shall be responsible to ensure that activities and materials which result in "off-gassing" of volatile organic compounds such as glues, paints, furniture, carpeting, wall covering, drapery, etc. are scheduled, cured or ventilated in accordance with manufacturers recommendations before a space can be occupied.

### 3.7 HAZARDOUS MATERIALS

- A. Verify that all school areas to be disturbed during renovation or demolition have been or will be tested for lead and for asbestos. For any project work that disturbs surfaces that

contain lead or asbestos, follow the plans and specifications prepared by a certified Lead Risk Assessor or Supervisor which details provisions for occupant protection, worksite preparation, work methods, cleaning, and clearance testing; which are in general accordance with HUD Guidelines.

1. All asbestos abatement projects shall comply with all applicable federal and State laws including but not limited to the New York State Department of Labor industrial code rule 56(12NYCRR56), and the federal Asbestos Hazard Emergency Response Act (AHERA), 40 CFR Part 763 (Code of Federal Regulations, 1998 Edition); available at the Office of Facilities Planning, Education Building Annex, Room 1060, State Education Department, Albany, NY 12234.
2. Any construction or maintenance operations which will disturb lead-based paint will require abatement of those areas pursuant to protocols detailed in the "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing", June 1995; U.S. Department of Housing and Urban Development (HUD), Washington, D.C. 20410; available at the Office of Facilities Planning, Education Building Annex, Room 1060, State Education Department, Albany, NY 12234.

B. Asbestos abatement projects

1. All school areas to be disturbed during renovation or demolition have been or will be tested for lead and asbestos.
2. Large and small asbestos abatement projects as defined by 12NYCRR56 shall not be performed while the building is occupied". Note, It is our interpretation that the term "building", as referenced in this section, means a wing or major section of a building that can be completely isolated from the rest of the building with sealed non combustible construction. The isolated portion of the building must contain exits that do not pass through the occupied portion and ventilation systems must be physically separated and sealed at the isolation barrier.
3. Exterior work such as roofing, flashing, siding, or soffit work may be performed on occupied buildings provided proper variances are in place as required and complete isolation of ventilation systems and at windows is provided. Care must be taken to schedule work so that classes are not disrupted by noise or visual distraction.

C. Lead Remediation projects

1. Surfaces that will be disturbed by reconstruction must have a determination made as to the presence of lead. Projects which disturb surfaces that contain lead shall have in the specifications a plan prepared by a certified Lead Risk Assessor or Supervisor which details provisions for occupant protection, worksite preparation, work methods, cleaning and clearance testing which are in general accordance with the HUD Guidelines.

### 3.8 EXITING

- A. All prime contractors shall prepare and maintain a plan detailing how exiting, required by the applicable building code, shall be maintained during construction.
  - 1. The plan shall indicate temporary construction required to isolate construction equipment, materials, people, dust, fumes, odors, and noise during the construction period.
  - 2. Temporary construction details shall meet code-required fire ratings for separation and corridor enclosure.
  - 3. At a minimum, required exits, temporary stairs, ramps, exit signs, and door hardware shall be provided at all times.
  - 4. The fire exiting plan shall be reviewed and approved by the Architect.

### 3.9 VENTILATION

- A. Prepare a plan detailing how adequate ventilation will be maintained during construction.
  - 1. The plan shall indicate ductwork which must be rerouted, disconnected, or capped in order to prevent contaminants from the construction area from entering the occupied areas of the building.
  - 2. The plan shall also indicate how required ventilation to occupied spaces affected by construction will be maintained during the project.

### 3.10 HEAT

- A. The contractor shall maintain a minimum temperature of 65° in all occupied interior spaces from September 15th to May 31st. Direct fired fuel-burning heating units shall not be used in any space of pupil occupancy.

END OF SECTION 011410



## SECTION 012100 - ALLOWANCES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
  - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor.
- B. Types of allowances include the following:
  - 1. Contingency Allowances
  - 2. Purchase Order Allowances – not used
  - 3. Work Scope Allowances – not used

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance cost proposal.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance cost proposal.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

#### 1.4 COORDINATION

- A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

## 1.5 ALLOWANCES

- A. Use the allowance only as directed by Construction Manager and Architect for Owner's purposes and only by change documentation that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, administrative expenses, project management, profit, and related costs for labor, products and equipment ordered by Owner under allowances are to be included within the allowance, and thereby included in the Contract Sum.
- C. Allowance disbursements authorizing use of funds from the allowance will include all related Contractor's costs including but not limited to, procurement, installation, insurance, equipment rental, and similar costs as applicable to the specific allowance.
- D. At Project closeout, credit unused amounts remaining in the allowance to Owner by credit Change Order.

## 1.6 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, the Construction Manager/Architect will prepare an Allowance Disbursement reflective of approved costs, that will result in Allowance Remaining.
  - 1. Contractor shall include installation costs in purchase amount only where indicated as part of the proposal request.
  - 2. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Contractor shall submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's work.
  - 1. Contractor shall not include Contractor's or subcontractors indirect expense in the cost proposal amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
  - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALLOWANCES:

- A. Contingency Allowance: Include within the Bid Proposal a contingency allowance for use according to the Owner's written instructions as follows:
1. Contract No. 31 - General Construction
    - a. Amount: \$150,000
  2. Contract No. 32 - Mechanical Construction
    - a. Amount: \$75,000
  3. Contract No. 33 – Electrical Construction
    - a. Amount: \$50,000
  4. Contract No. 34 – Plumbing Construction
    - a. Amount: \$50,000

END OF SECTION 012100



## SECTION 012300 - ALTERNATES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

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

#### 1.3 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.

#### 1.4 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 indicated as part of alternate or not.
- 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 Alternates:

- 1. **Alternate #1A:** Add Replacement of Windows at area indicated on the drawing elevations.
  - a. Contract 31 (GC)
- 1. **Alternate #1B:** Add Replacement of Windows at area indicated on the drawing elevations.
  - a. Contract 31 (GC)
- 1. **Alternate #1C:** Add Replacement of Windows at area indicated on the drawing elevations.
  - a. Contract 31 (GC)
- 1. **Alternate #1D:** Add Replacement of Windows at area indicated on the drawing elevations.
  - a. Contract 31 (GC)
- 2. **Alternate #2:** Add Vestibule addition construction instead of base-bid canopy at building entrance inclusive of general construction, mechanical, and electrical scope of work.
  - a. Contract 31 (GC), Contract 32 (MC), Contract 33 (EC)
- 3. **Alternate #3:** Add Kitchen / Cafeteria renovation construction indicated areas 3A, 3B, and 3C indicated on the drawings, and inclusive of general construction, mechanical, electrical, and plumbing scope of work.
  - a. Contract 31 (GC), Contract 32 (MC), Contract 33 (EC), Contract 34 (PC)

4. **Alternate #4:** Add Central Conference renovation construction inclusive of general construction, mechanical, electrical, and plumbing scope of work.
  - a. Contract 31 (GC), Contract 32 (MC), Contract 33 (EC), Contract 34 (PC)
  
5. **Alternate #5:** Add / Deduct cost for providing specific Basis-of-Design HVAC Equipment scheduled on drawing PES M901, instead of acceptable equivalents.
  - a. Contract 32 (MC)

END OF SECTION 012300



## SECTION 012500 - SUBSTITUTION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

#### 1.3 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.
  - 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.

#### 1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use facsimile of form provided in Project Manual.
  - 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. Indicate deviations, if any, from the Work specified.
  - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested.
  - f. Certificates and qualification data, where applicable or requested.
  - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
  - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
  - i. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
  - j. Cost information, including a proposal of change, if any, in the Contract Sum.
  - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
  - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

## 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.

## 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 15 days prior to time required for preparation and review of related submittals.
  - 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 is consistent with the Contract Documents and will produce indicated results.
    - b. Substitution request is fully documented and properly submitted.
    - c. Requested substitution will not adversely affect Contractor's construction schedule.
    - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
    - e. Requested substitution is compatible with other portions of the Work.
    - f. Requested substitution has been coordinated with other portions of the Work.
    - g. Requested substitution provides specified warranty.
    - h. 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: Not allowed.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

## SECTION 012600 – CONTRACT MODIFICATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
  - 1. Provisions of this Section apply to the Work of each Prime Contract.
- B. Related Sections include the following:
  - 1. Division 00 Section "Project Forms" for example forms.
  - 2. Division 01 Section "Allowances" for procedural requirements for handling and processing allowances.
  - 3. Division 01 Section "Substitution Procedures" for administrative procedures for handling requests for substitutions made after Contract award.

#### 1.3 MINOR CHANGES IN THE WORK

- A. The Architect will issue 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."

#### 1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: The Architect 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. Proposal Requests issued by the Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.

2. Within time specified in Proposal Request 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 data to substantiate quantities.
  - b. Indicate applicable, delivery charges, equipment rental, and amounts of trade discounts.
  - c. 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.
- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Site Coordinator.
  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 data to substantiate quantities.
  3. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.
  4. 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.
  5. Comply with requirements in Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.
- C. Proposal Request Form: Use AIA Document G709 for Proposal Requests and Change Proposal Form Cover Sheet (See Special provision Exhibit H).

#### 1.5 CONTINGENCY ALLOWANCES

- A. Prime Contractor's costs for material, equipment, delivery, unloading, storage, handling and installation, and labor shall be included in the value of the contingency allowance authorization.
- B. Overhead and profit values including the costs of bonds, insurance, administrative and supervision are part of the Base Bid, outside the value of the contingency allowance authorization.

- C. Contingency Allowance Adjustment: To adjust allowance amounts, base each Allowance Disbursement upon the written authorized amount of the Architect.
  - 1. Prepare explanation, documentation and itemization to substantiate distribution of costs claimed.
    - a. Submit invoices and delivery slips to show actual quantities of materials delivered to Site for use in fulfillment of each allowance.
  - 2. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measures, or counts.
- D. Form: Use Architect's Allowance Disbursement form per Division 1 Section "Project Forms".
- E.

#### 1.6 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, the Architect will issue a Change Order for signatures of the Architect, Owner and Contractor on AIA Document G701 Change Order form.
  - 1. All quotations shall be accompanied by a complete itemization of costs, including labor (type, quantity and unit cost per hour), materials (type, quantity and unit cost) and copies of written quotations from subcontractors and suppliers itemized in the same manner.
    - a. Overhead shall be deemed to include the cost of insurance, and similar contract requirements.
    - b. Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.
  - 2. The combined overhead and profit included in the total cost to the Owner shall be based on the schedule included in the General Conditions.
  - 3. Performance and Payment Bond Adjustments: Do not itemize increased bond premiums for each individual Change Order per General Conditions of the Contract, paragraph 11.4.

#### 1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: When Owner and Prime Contractor are not in agreement on terms of Proposal Request, the Architect may issue a Construction Change Directive on AIA Document G714. The Construction Change Directive instructs Prime Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
  - 1. Construction Change Directive contains a 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. Prime Contractor Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
  - 1. Upon completion of change, submit an itemized account and supporting data necessary, or as requested by Architect, 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. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
  - 1. Division 01 Section "Allowances" for procedural requirements governing handling and processing of allowances.
  - 2. Division 01 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
  - 3. Division 01 Section "Unit Prices" for administrative requirements governing use of unit prices.
  - 4. Division 01 Section "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.
  - 5. Division 01 Section "Schedule of Values".

#### 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. Use the approved Schedule of Values form for each Application for Payment.

#### 1.4 APPLICATIONS FOR PAYMENT

- A. Submit Applications for Payment only after Schedule of Values have been approved.
- B. 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.

5. Schedule of unit prices.
  6. Submittals Schedule (preliminary if not final).
  7. List of Contractor's staff assignments.
  8. List of Contractor's principal consultants.
  9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
  10. Initial progress report.
  11. Report of preconstruction conference.
  12. Certificates of insurance and insurance policies.
  13. Performance and payment bonds.
  14. Data needed to acquire Owner's insurance.
  15. Initial settlement survey and damage report if required.
- C. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and Construction Manager as to the actual value of the Work, which will be completed by the end of the month 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.
- D. Payment Application Times: The date for each progress payment is the 30<sup>th</sup> day of each month.
1. This date is a basis of cycle time, and shall be confirmed at the Pre-Construction Conference, based on the owner's requirements for processing Applications for Payment. The owner reserves the right to adjust this cycle if necessary, with payments executed net 30 days."
- E. Draft copies (pencil copies) shall be submitted to the Construction Manager, by the 20<sup>th</sup> day of the month, for the duration of the project. This day may be modified from time to time to accommodate the owners schedule
1. Reflect an accurate projection of Work that the Prime Contractor anticipates will be completed through the end of each month.
  2. Final copies, including review adjustments, shall be submitted to the Construction Manager by the 30<sup>th</sup> day of the month.
    - a. Provided that a fully executed and complete Application for Payment is submitted on the 30<sup>th</sup> day of each month, the Owner will receive requisitions by the 10<sup>th</sup> day of the next month.
- F. Payment Application Forms: Use approved Schedule of Values for as form for Application for Payment.

1. Provide itemized data on the Continuation Sheet. Format, schedules, line items, and values shall be those of the approved Schedule of Values.
- G. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
1. Entries shall match data of the approved Schedule of Values.
  2. Provide updated Prime Contractor Construction Schedule with each application.
  3. Include only amounts of fully executed Change Orders issued before last day of construction period covered by application.
- H. Transmittal: Submit 4 signed and notarized original copies of each Application for Payment to Construction Manager by a method ensuring receipt within 24 hours. Both copy shall include waivers of lien, Certified Payrolls, and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application in acceptable manner discussed with Architect.
- I. Certified Payrolls: With each Application for Payment, submit certified payrolls from the Prime Contractor's own forces and subcontractors for the construction period covered by the previous application.
- J. All substantiating data and attachments required by the Contract Documents shall accompany each Application for Payment upon submission in the form required by the Architect
- K. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
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 final or full waivers.
  3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
  4. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
  5. An Affidavit of Payments to Subcontractors and Suppliers on a form approved by Architect.
    - a. Forms are for previous month's application and are to be submitted with every application through and including the latest pay period prior to the date of submittal of the application.

6. When Architect requires additional substantiating data, Prime Contractor shall promptly submit suitable information with a cover letter.
- L. Monthly Application for Payment: Administrative actions and submittals for each monthly application for payment include the following:
1. Change Orders: Submit only fully executed, including signatures by all parties, documenting approval.
- M. Application for Payment at Substantial Completion: After issuing 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 Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- N. Final Payment Application: Submit final Application for Payment with executed releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
  2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
  3. Updated final statement, accounting for final changes to the Contract Sum.
  4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
  5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
  6. AIA Document G707, "Consent of Surety to Final Payment."
  7. Evidence that claims have been settled.
- O. Full and Final Payment will not be made until the following have been supplied, approved and accepted by the Owner and Architect.
1. The required number of copies of all written guarantees, warranties, bonds, operating and maintenance manuals, and test results.
  2. Documentation that all verbal and written instructions and training sessions required by the Contract has been completed.
  3. The required number of copies of all Project Record Documents ("as-built" drawings) has been received.
  4. All materials and equipment required as stock is delivered.
  5. Any other requirement of the Contract Documents which remains outstanding.

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PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900



## SECTION 012973 - SCHEDULE OF VALUES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for the Schedule of Values.
- B. Provide summary for all scheduled values as approved by the Architect.

#### 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 FORMS

- A. Use the following form:
  - 1. Schedule of Values: Provide an AIA Document G703 – Continuation Sheet, 1992 edition.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION

#### 3.1 SCHEDULE OF VALUES

- A. Coordination: Each Prime Contract shall coordinate preparation of its Schedule of Values for its portion of the Construction Schedule and the Work.
  - 1. Correlate line items in the Schedule of Value with other required administrative forms and schedules, including the following:
    - a. Application for Payment forms with Continuation Sheets.
    - b. Submittals Schedule.
    - c. Material/Equipment status report.
    - d. Contractor's Construction Schedule.
- B. Format and Content: Use the 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 Section

under Division 01, including, but not limited to, those indicated within Prime Contract scope under Division 01 Section "Multiple Contract Summary."

1. Include and complete all header information on the Schedule of Values forms.
2. Provide a breakdown of the Contract Sum in enough detail and as follows to facilitate continued evaluation of Applications for Payment and progress reports. Provide several line items for principal subcontract amounts, where appropriate and as indicated.
3. Provide breakdowns for each phase of construction, addition and building.
4. Format and Content: Use the 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 applicable Section, including but not limited to, those identified as Prime Contracts' responsibility to provide.
  - a) Provide a breakdown of the Contract Sum in enough detail and as follows, to facilitate continued evaluation of Applications for Payment and progress reports.
  - 2) Example: Structural steel, that will have separate lines items for; Anchor Bolts, Leveling Plates, Columns & Beams, Engineered Joists, Roof or Floor Deck, etc.
  - 3) Example: UG Domestic or Storm Water system, that will have separate lines for; Pipe, Fittings, Structures, Frames and Grates, Thrust blocks, Hydrants, etc.
    - a) Include all fields of information on G702 and G732 forms.
    - b) Each element, including individual Alternates, shall be broken down into separate labor and material sub-items.
    - c) Amounts shall be rounded to the nearest whole dollar; total shall equal the Contract Sum.
  - 4) Total costs shall include respective overhead and profit.
  - 5) Percentage of total Contract Sum shall equal 100 percent.
    - a) Provide multiple line-items for principal subcontract amounts, where appropriate and as indicated.
  - 6) Where line-items are subcontracted, or materials furnished by a major material vendor, include such entities' proper name in italics, parenthesis, or other unique identification method, as required by the Architect.
  - 7) Subcontracted line items may remain lump sum, however only invoicing for installed Work will be allowed.
    - a) Schedule a separate lump sum line-item in Schedule of Values for each part of the work related to General Requirements for the entire Contract as follows, or as otherwise agreed upon with the Construction Manager:
  - 8) Performance and Payment Bonds (provide supporting documentation).
  - 9) Insurance.
  - 10) Mobilization.

- 11) Demobilization.
  - 12) Temporary facilities.
  - 13) Field supervision (Superintendent) and Management: **No less than 3% of Contract sum.**
  - 14) Submittals & Shop Drawings: **No less than 1% of Contract sum.**
  - 15) Meeting attendance: **No less than 1% of Contract sum.**
  - 16) Schedule: **No less than 2% of Contract Sum.**
  - 17) Coordination: **No less than 1% of Contract Sum.**
  - 18) Punch List: **No less than 3% of Contract sum.**
  - 19) Closeout: **No less than 1% of Contract Sum.**
  - 20) System Commissioning (if applicable)
  - 21) Allowances: Provide a separate line item for each Allowance (if applicable)
  - 22) Alternates: Provide a separate line item for each Alternate (if applicable)
  - 23) Change Orders: On separate G703 sheet, add each Change Order for the Prime Contract, as cumulatively issued/approved through duration of project.
- b. Itemize separate line item cost for work required by each basic activity or operation by specification Section numbers.
- 1) Take each line item cost and breakout into separate labor and material for work required by each basic activity or operation by specification Section numbers.
5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
- a. Show total costs including overhead and profit.
  - b. Percentage of total Contract Sum adjusted to equal 100 percent.
6. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include progress payments for materials or equipment purchased or fabricated and stored, but not yet installed.
- a. Differentiate between items stored on-site and items stored off-site. Include evidence of insurance or bonded warehousing.
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. Provide additional separate line items for Specification Sections that have construction that can be identified as a separate system, like structural steel, that will have separate lines items for;
- a. Anchor Bolts
  - b. Columns & Beams

9. After review by the Architect/Owners Representative, revise and resubmit Schedule of Values if required by the Architect/Owners Representative as many times as required until approval by the Architect/Owners Representative is received.

C. Schedule of Value Times:

1. Within ten (10) days of Notice to Proceed, submit to the Architect/Owners Representative, a fully outlined, draft Schedule of Values on AIA Docs. G732 and G703.
2. Based on the Architect's/Owners Representative approval, revise and resubmit the final approved Schedule of Values on AIA Docs. G732 and G703 at least ten (10) days prior to the first application for payment.
3. First Application for Payment will not be approved until the Architect/Owners Representative approves Schedule of Value format.
4. 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.

END OF SECTION 012973

## SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. Coordination Drawings.
  - 2. Administrative and supervisory personnel.
  - 3. Project meetings.
  - 4. Requests for Interpretation (RFIs).
  - 5. Special Reports.
  - 6. General Coordination Provision.
- B. Each Prime Contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.
- C. Related Sections include the following:
  - 1. Division 00 Section "Project Forms" for labor rate sheet to be used.
  - 2. Division 01 Section "Summary of Work" for a description of the division of Work among separate contracts and responsibility for coordination activities not in this Section.
  - 3. Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's Construction Schedule.
  - 4. Division 01 Section "Work Restrictions" for identification badges.
  - 5. Division 01 Section "Submittal Procedures" for transmittal of submittals.
  - 6. Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  - 7. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.

### 1.3 DEFINITIONS

- A. RFI: Request from Contractor seeking interpretation or clarification of the Contract Documents.
- B. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.
  - 1. Coordination Drawings may include components previously shown in detail on Shop Drawings or Product Data.

### 1.4 COORDINATION

- 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. Project meeting attendance shall facilitate open communications.
  - 2. 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.
  - 3. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
  - 4. Make adequate provisions to accommodate items scheduled for later installation.
  - 5. Where availability of space is limited, each Prime Contractor shall coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
- 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.
  - 2. Each Prime contractor shall prepare and distribute a Two Week Look Ahead Schedule. The Two Week Look Ahead Schedule shall be updated and distributed weekly at the coordination meeting.

- C. Administrative Procedures: Each Prime Contractor shall coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other Prime 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. Pre-installation conferences.
  7. Project closeout activities.
  8. Startup and adjustment of systems.
  9. Processing of coordination drawings.
  10. Daily cleaning and protection.
- D. Conservation: Each Prime Contractor shall coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Provide for material and waste recycling methods.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

#### 1.5 SPECIAL REPORTS

- A. General: Submit special reports to Owner within one day of an occurrence. Submit a copy of report to Architect and other entities affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual or significant nature occurs at Site, Prime Contractor shall prepare and submit a special report. The report shall list data, observations of chain of events, persons affected, and participating response by Prime Contractor's personnel and similar pertinent information.
1. Advise the Owner in advance when such events are known or predictable.

#### 1.6 SUBMITTALS

- A. Coordination Drawings: Prepare Coordination Drawings of limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.

1. Content: Project-specific information, drawn accurately to scale. Do not base Coordination Drawings on reproductions of the Contract Documents or standard printed data. Include the following information, as applicable:
  - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
  - b. Indicate required installation sequences.
  - c. Indicate dimensions shown on the Contract Drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
2. Sheet Size: Coordination Drawings shall be generated on sheets 30 by 42 inches.
3. Number of Copies: Submit two opaque copies of each submittal. Architect, will return one copy.
  - a. Submit five copies where Coordination Drawings are required for operation and maintenance manuals. Architect will retain two copies; remainder will be returned. Mark up and retain one returned copy as a Project Record Drawing.
4. Refer to individual Sections for Coordination Drawing requirements for Work in those Sections.
5. Coordination Drawing Sequence:
  - a. **Mechanical Contractor- MC (Contract #02)** shall prepare coordination drawings on the base sheets furnished by the Architect.
    - 1) Show all Ductwork, Piping, Equipment, Hangers, connectors etc.
    - 2) Show all openings on the coordination drawing.
    - 3) Show all sleeve sizes and locations on Coordination drawings.
    - 4) Show all ductwork openings and openings larger than 2 inches diameter on the Coordination Drawings.
    - 5) Show rough openings at each wall, floor and roof shall be indicated by on Coordination Drawings
    - 6) MC shall hang streamers from above all ceiling equipment that will require access. This is in addition to any specification requirements for tags, labels, etc. Coordination Drawings shall highlight these areas for Architect's review.
    - 7) Upon completion of the coordination drawings by the MC, the MC will give the finished base drawings to the PC for their use.
  - b. **Plumbing Contractor – PC (Contract #04)** shall prepare coordination drawings on the base sheets furnished by the **MC**.
    - 1) Show all piping, equipment, fixtures, hangers, connectors, etc.
    - 2) Show all openings on the coordination drawing.
    - 3) Show all sleeve sizes and locations on Coordination drawings.

- 4) Show all openings larger than 2 inches diameter on the Coordination Drawings.
  - 5) Show rough openings at each wall, floor and roof shall be indicated by on Coordination Drawings
  - 6) PC shall hang streamers from above all ceiling equipment that will require access. This is in addition to any specification requirements for tags, labels, etc. Coordination Drawings shall highlight these areas for Architect's review.
  - 7) Upon completion of the coordination drawings by the PC, the PC will give the finished base drawings to the EC for their use.
- c. **Electrical Contractor – EC (Contract #03)** shall prepare coordination drawings on the base sheets furnished by the **PC**.
- 1) Show all Conduits, junction boxes, panels, equipment, hangers, cable trays etc.
  - 2) Show all openings on the coordination drawing.
  - 3) Show all sleeve sizes and locations on Coordination drawings.
  - 4) Show all openings larger than 2 inches diameter on the Coordination Drawings.
  - 5) Show rough openings at each wall, floor and roof shall be indicated by on Coordination Drawings
  - 6) EC shall hang streamers from above all ceiling equipment that will require access. This is in addition to any specification requirements for tags, labels, etc. Coordination Drawings shall highlight these areas for Architect's review.
  - 7) Upon completion of the coordination drawings by the **EC**, the **EC** will give the finished base drawings to the **GC** for their use.
- d. **General Contractor - GC (Contract #01)** shall incorporate into the coordination drawings on the base sheets furnished by the **EC** including but not limited to the following:
- 1) Show all structural steel on the coordination drawing.
  - 2) Show all walls on Coordination drawings.
  - 3) Show all doors and windows on the Coordination Drawings.
- e. Upon completion and sign off by all Prime Contracts of the coordination drawings the **Mechanical Contractor- MC (Contract #04)** will submit the Coordination Drawings to the Architect for review and comment to all Prime Contracts. When the coordination drawings are approved, the **MC** will send a copy to all of the Prime Contracts and Construction Manager.

- f. All Prime Contracts shall install Work in accordance with approved Coordination Drawings at no additional cost to the Owner. No additional compensation will be made for extra offsets and conduit or retrofit work due to improper component location, or lack of Prime Contractor(s)' coordination.
  - g. The **MC** shall provide Coordination Drawings to **GC**, **PC**, and **EC** Contracts indicating all details for the installation of all Plumbing, HVAC, and Electrical components for equipment furnished under the each Prime Contract and connected by the PC, MC and EC.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
- 1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.
  - 2. Submit list to Construction Site Coordinator.

#### 1.7 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.
- 1. Include special personnel required for coordination of operations with other contractors.
- B. Supervision: Each Prime Contractor's project manager and field superintendent throughout project duration shall have five years' experience minimum in the proposed position.
- 1. Two years minimum of the five years' experience for position shall be with Prime Contractor's firm.
  - 2. Asbestos Abatement: Additionally field superintendent shall meet requirements of OSHA 1926.1101 "Competent Person," have one year of on-the-job training minimum, and hold certification as an Asbestos Project Supervisor.
- C. Should the project managers or superintendents prove unqualified for the position at any point in the project, the Construction Manager shall issue a letter stating that the person is to be removed from involvement in the project.

1. Action must be made by Prime Contractor within seven working days of receipt of such letter.
- D. Staff Names: At Preconstruction Conference each Prime Contractor shall submit a list of principal staff assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities. List businesses addresses and telephone numbers, including business office, field office, cellular, and facsimile.
1. Post copies in Project meeting room, each temporary field office and at each temporary telephone.
- E. Provide corresponding identification badge number for each staff listed.

## 1.8 PROJECT MEETINGS

- A. General: Construction Manager shall 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: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner, Construction Manager and Architect, but no later than 15 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Architect will conduct the meeting to review responsibilities and personnel assignments.
1. Attendees: Authorized representatives of Owner, Construction Manager, Architect, and their consultants; each Prime Contractor and its superintendent; major subcontractors; manufacturer's suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Introduction and sign in of attendees.
    - b. Each Prime Contractor shall submit the:

- 1) Tentative construction schedule.
  - 2) Staff names.
  - 3) Preliminary submittal schedule.
  - 4) Labor rate sheets; provide for each trade classification of Prime Contract workforce on form per Division 00 Section, "Project Forms".
  - c. Critical work sequencing and long-lead items.
  - d. Designation of key personnel and their duties.
  - e. Procedures for processing field decisions and Change Orders.
  - f. Procedures for RFIs.
  - g. Procedures for testing and inspecting.
  - h. Procedures for processing Applications for Payment.
  - i. Distribution of the Contract Documents.
  - j. Submittal procedures.
  - k. Architect to provide overview of projected construction milestone schedule, phasing requirements and schedules.
  - l. Labor Wage Rates
  - m. Preparation of Record Documents.
  - n. Use of the premises and existing building.
  - o. Work restrictions.
  - p. Identification badges.
  - q. Daily Cleaning Procedures.
  - r. Owner's occupancy requirements.
  - s. Responsibility for temporary facilities and controls.
  - t. Construction waste management and recycling.
  - u. Parking availability.
  - v. Field office, work, and storage areas.
  - w. Equipment deliveries and priorities.
  - x. First aid.
  - y. Security.
  - z. Progress cleaning.
  - aa. Working hours.
3. Minutes: Construction Manager will record and distribute meeting minutes.
- C. Pre-installation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Prime Contractor, 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 Site Coordinator 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. The 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 problems.
  - k. Conformance with Architect's project schedule.
  - l. Weather limitations.
  - m. Manufacturer's written recommendations.
  - n. Warranty requirements and manufacturer's inspection notification.
  - 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. Construction Manager to 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 parties who should have been present.
  5. Do not proceed with installation if the conference cannot be successfully concluded. Architect shall initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Conduct progress meetings at biweekly intervals. Coordinate dates of meetings with preparation of payment requests. Meetings will be held weekly, as determined by the Construction Manager if, construction sequencing is critical or if construction fall behind schedule.
1. Attendees: In addition to representatives of Owner, Construction Site Coordinator 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

conference shall be familiar with Project and authorized to conclude matters relating to the Work.

2. 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. Prime 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) Construction Schedule Updating: Prime Contractors to revise construction schedule after each meeting when revisions have been recognized or made. Forward the updated construction schedule to Architect within 2 working days of the progress meeting.
      - a) Conflicts: Each Prime Contractor is to review the approved schedules of other Prime Contractors and attempt to resolve together, any conflicts.
      - b) Delay of Work Claims: Document in updated construction schedules overdue milestone or event dates due to other Prime Contractors non-compliance with Architect's project schedule.
      - c) Reporting: Provide in writing any unresolved conflicts with other Prime Contractors that may affect or delay overall project goals within 24 hours of occurrence to Architect.
  - b. Review present and future needs of each entity present, including the following:

Architect

- 1) Identify present problems and necessary resolutions.
- 2) Status of submittals.
- 3) Field observations.
- 4) RFIs.
- 5) Status of proposal requests.
- 6) Pending changes.
- 7) Status of Change Orders.
- 8) Pending claims and disputes.
- 9) Documentation of information for payment requests.

Construction Manager

- 1) Deliveries.
- 2) Access.

- 3) Site utilization.
- 4) Temporary facilities and controls.
- 5) Work hours.
- 6) Progress cleaning.
- 7) Quality and work standards.

Prime Contractor

- 1) Interface requirements and compatible product issues of products and construction methods within place products of other Prime Contractors.
  - 2) Sequence of operations.
  - 3) Status of submittals.
  - 4) Off-site fabrication.
  - 5) Temporary facilities and controls.
  - 6) Hazards and risks.
  - 7) Status of correction of deficient items.
3. Minutes: Construction Manager will Record the meeting minutes.
  4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
    - a. Schedule Updating: Revise Contractor's Construction Schedule monthly where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

E. Coordination Meetings: The **Mechanical Contractor- MC (Contract #02)** shall Conduct Project coordination meetings at weekly intervals or as necessary to complete coordination drawings. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and reinstallation conferences.

1. Attendees: In addition to representatives of Owner, Construction Site Coordinator 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 conference shall be familiar with Project and authorized to conclude matters relating to the Work.
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 Coordination Drawings: 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 Coordination Drawing Completion Dates. Determine how drawings 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. Coordination Updating: Revise Combined Contractor's Coordination drawings after each coordination meeting where revisions to the drawings have been made or recognized. Issue revised drawings concurrently with report of each meeting.
  - c. Coordination Updating: Revise Combined Contractor's Coordination drawings after each coordination meeting where revisions to the drawings have been made or recognized. Issue revised drawings concurrently with report of each meeting.
- F. Scheduling Meetings: The **General Contractor- GC (Contract #01)** shall Conduct Project scheduling meetings at weekly intervals or as necessary to complete **Project Master Schedule**. Project scheduling meetings are in addition to specific meetings held for other purposes, such as progress meetings and reinstallation conferences.
- 1. Attendees: In addition to representatives of Owner, Construction Site Coordinator 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 conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  - 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 scheduling meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to Combined Contractor's Master Project 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 scheduling 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) Status of submittals.
      - 4) Deliveries.
      - 5) Off-site fabrication.

- 6) Access.
  - 7) Site utilization.
  - 8) Temporary facilities and controls.
  - 9) Work hours.
  - 10) Hazards and risks.
  - 11) Progress cleaning.
  - 12) Quality and work standards.
  - 13) 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.

#### 1.9 REQUESTS FOR INTERPRETATION (RFIs)

- A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
1. RFIs shall originate with the Prime Contractor. RFIs submitted by entities other than Contractor will be returned 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 interpretation and the following on this projects form:
1. Project name.
  2. Date.
  3. Name of Contractor.
  4. Name of Architect.
  5. RFI number, numbered sequentially.
  6. Specification Section number and title and related paragraphs, as appropriate.
  7. Drawing number and detail references, as appropriate.
  8. Field dimensions and conditions, as appropriate.
  9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  10. Contractor's signature.
  11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
    - a. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.

- C. Software-Generated RFIs: Software-generated form with the same content and layout as indicated above.
  - 1. Attachments shall be electronic files in Adobe Acrobat PDF format.
  
- D. Architects and Construction Manager Action: Architect and Construction Site Coordinator will review each RFI, determine action required, and return it. Allow five working days for Architect's response for each RFI. RFIs received after 3:00 p.m. will be considered as received the following working day.
  - 1. The following RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for coordination information already indicated in the Contract Documents.
    - d. Requests for adjustments in the Contract Time or the Contract Sum.
    - e. Requests for interpretation of Architect's actions on submittals.
    - f. Incomplete RFIs or RFIs with numerous errors.
  - 2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
  - 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 Division 01 Section "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect and Construction Site Coordinator in writing within 10 days of receipt of the RFI response.
  
- E. On receipt of Architect's and Construction Manager, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect and Construction Site Coordinator within seven days if Contractor disagrees with response.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 GENERAL COORDINATION PROVISIONS

- A. Inspection of Conditions: Require Installer of each major component to inspect both substrate and conditions under which Work is to be performed. Correct unsatisfactory conditions prior to proceeding.

- B. Coordinate temporary enclosures with required inspection and tests to minimize the necessity of uncovering completed construction for that purpose.

### 3.2 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
  - 1. Before construction, verify the location and points of connection of utility services.
  - 2. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
  - 3. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Acceptance of Conditions: Prime Contractor shall 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 and submit to Architect.
  - 1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
    - a. Date of examination.
    - b. Description of the Work.
    - c. List of detrimental conditions, including substrates.
    - d. List of unacceptable installation tolerances.
      - 1) Verify Specification Section for responsibility of corrective measures.
    - e. Recommended correction of those not part of Work as detailed in Specification Section.
  - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  - 3. Examine roughing-in for mechanical and electrical systems to verify actual location of connection before equipment and fixture installation.

### 3.3 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with Architect and authorities having jurisdiction.

- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
  - 1. Notify Construction Site Coordinator in advance of proposed utility interruptions.
    - a. Submit shutdown request form to Construction Site Coordinator for written permission and authorization.
  - 2. Do not proceed with utility interruptions without written permission and authorization.
- C. Field Measurements: Take field measurements as required to fit the Work properly. Re-check 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. Prime Contractor to verify fabrication schedule coincides with Architect's construction schedule to avoid delaying the Work.
- D. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- E. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

### 3.4 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to layout the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, immediately notify Architect.
- B. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- C. 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.
- D. 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 part member and types of instruments and tapes used. Make the log available for reference by Architect.

END OF SECTION 013100



## SECTION 013150 - SAFETY AND HEALTH

### PART 1 - GENERAL

#### 1.1 SAFETY AND HEALTH REGULATIONS

- A. Contractor shall comply with the U.S. Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-54), latest revisions and with the latest requirements of the "Right to Know" laws and the New York State Labor Law.
- B. In order to protect the general public and the lives and health of his employees under the Contract, the contractor shall comply with all pertinent provisions of the latest issues of the Federal Register, Bureau of Labor Standards, Safety and Health Regulations; New York State Industrial Code Rule 30 pertaining to Tunneling Operations; New York State Industrial Code Rule 23 pertaining to Trenching Operations; and the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Inc., and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work under this Contract. In case of a conflict between the above noted authorities, the most stringent shall prevail.
- C. Contractor shall have on the project site at all times, while work is in progress, at least one person skilled in safety and health procedures and familiar with State and Federal safety and health regulations whose responsibility shall be to observe methods and procedures. He shall have the duty and authority to stop and correct all unsafe and unhealthy conditions.
- D. Toxic, noxious or otherwise hazardous fumes, gases or dusts, etc. from welding, cadwelding, painting, grinding, sawing, sweeping or any other operations shall be kept to the absolute minimum and shall be vented directly to the outside by the Contractor, and only used when authorized in writing by Construction Manager.
- E. Contractor to submit to Construction Manager, prior to first payment application approval, Material Safety and Data Sheets (MSDS) for all material used on site. Contractor shall also keep one (1) complete set of Material Safety and Data Sheets (MSDS) onsite at all times.

#### 1.2 SAFETY AND FIRST AID

- A. Contractor shall at all times exercise caution of his operations and shall be responsible for the safety and protection of all persons on or about the site arising out of or relating to his Work. All hazards shall be avoided or guarded in accordance with the provisions of the Manual of Accident Prevention in Construction of the AGCA, unless such provisions contravene local law. The safety provisions of all applicable laws, codes and ordinances shall be observed.
- B. Contractor shall provide and maintain at the Site, at each location where work is in progress, as part of his plan, an approved first aid kit. Ready access thereto shall be provided at all times when workers are employed on the work.
- C. Contractor shall take all precautions against infectious diseases, and shall arrange for the immediate isolation and removal from the Site of any employee who becomes ill or is injured while engaged on the work.
- D. Contractor shall, upon request of the Construction Manager, immediately correct all conditions which constitute a clear and present danger to persons as defined by Construction Manager. If such danger is not so corrected, the Owner or Construction Manager will employ other persons to do such work and the expense thereof shall be deducted from any monies due or to become due to the Contractor.

### 1.3 ACCIDENTS AND ACCIDENT REPORTS

- A. Notify Construction Manager immediately of any accidents involving contractor, sub-contractor or supplier personnel on site.
- B. In a timely manner complete accident report forms as issued by Construction Manager.

### 1.4 TOOL BOX SAFETY MEETINGS

- A. Contractor shall hold weekly toolbox safety meetings with his own workers. Records of these meetings must be forwarded to the Construction Manager.

END OF SECTION 013150

## SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. 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.

#### 1.3 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. Float time is not for the exclusive use or benefit of either Owner or Contractor,.
  - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
  - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
  - 4. Float is a resource of the Project and not owned by any Prime Contract
- F. Work Breakdown Structure (WBS) - Thee breakout of specific work areas as defined by the CM

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
  - 1. Working electronic copy of schedule file, in the particular software's native format .PDF files are not to be accepted or propsoed as "electronic schedule files"
  - 2. PDF electronic file. - A snapshot of an electronic schedule file
  - 3. Hard Copy - Printed version of the CPM schedule showing all tasks, activities, activity ID's, predecessors, successors, free float, total float, original duration, actual duration, remaining duration, early start, late start, early finish and late finish and logic as required by CM
- B. Startup construction schedule.
- C. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- D. 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 printed. Show Schedule's current "Data Date".
- E. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
  - 1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.

2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
  3. Total Float Report: List of all activities sorted in ascending order of total float.
  4. Earnings Report: Compilation of Contractor's total earnings from commencement of the Work until most recent Application for Payment.
- F. Construction Schedule Updating Reports: Submit with Applications for Payment.
- G. Daily Construction Reports: Submit at weekly intervals.
- H. Material Location Reports: Submit at weekly intervals.
- I. Site Condition Reports: Submit at time of discovery of differing conditions.
- J. Special Reports: Submit at time of unusual event.

#### 1.5 QUALITY ASSURANCE

- A. Pre-scheduling Conference: Participate in conference(s) 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 requirements, content and format for reports.
  2. Verify availability of qualified personnel needed to develop and update schedule.
  3. Discuss constraints, including phasing, work stages, interim milestones.
  4. Review delivery dates for Contractors and Owner-furnished products relevant to this Prime Contract.
  5. Review schedule for work of Owner's separate contracts.
  6. Review submittal requirements and procedures.
  7. Review time required for review of submittals and resubmittals.
  8. Review requirements for tests and inspections by independent testing and inspecting agencies.
  9. Review time required for Project closeout and Owner startup procedures, including commissioning activities.
  10. Review and finalize list of construction activities to be included in schedule.
  11. Review procedures for updating schedule.

## 1.6 COORDINATION

- A. Coordinate Contractor's construction schedule with the CM's Project Schedule , 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 with assistance from the CM.

## PART 2 - PRODUCTS

### 2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Contractor shall utilize scheduling software capable of creating true CPM schedules. Logic, durations predecessors and successors shall be shown. Software utilized by Contractor shall be able to be exported in a format that is compatible with P6 Primavera Scheduling software.
- B. Update "Data Date" each time the schedule is updated or changed by the contractor and submit' in the native CPM electronic format and one hard copy of the schedule. Printed copy shall show logic, durations (actual and original), predecessors, successors, and all floats at a minimum or as directed by CM
- C. Excessive float (in excess of 30 days) will not be accepted in any activity unless specifically authorized by CM.
- D. Constraints shall not be utilized unless specifically authorized by CM
- E. 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.
- F. Activities: Treat each story work area, or separate area as a separate Work Breakdown Structure (WBS) for each element of the Work or as directed by CM Comply with the following:
  - 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by CM.
  - 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 30 calendar 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 15 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.
  7. Phasing: Arrange list of activities on schedule by phase and WBS or as directed by CM.
  8. Work under More Than One Contract: Include a separate activity for each contract.
  9. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
  10. 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.
  11. 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.
  12. Work Restrictions: Show the effect of the following items on the schedule:
    - a. Coordination with existing construction.
    - b. Limitations of continued occupancies.
    - c. Uninterruptible services.
    - d. Partial occupancy before Substantial Completion.
    - e. Use of premises restrictions.
    - f. Provisions for future construction.
    - g. Seasonal variations.
    - h. Environmental control.
  13. 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. Deliveries.
    - g. Installation.

- h. Tests and inspections.
  - i. Adjusting.
  - j. Curing.
  - k. Structural completion.
  - l. Temporary enclosure and space conditioning.
  - m. Permanent space enclosure.
  - n. Completion of mechanical installation.
  - o. Completion of electrical installation.
  - p. Substantial Completion.
- G. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion. Include additional Milestones as directed by CM..
- H. 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.
- I. 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.
- J. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
- 1. Use the latest version of electronic CPM scheduling software which is compatible with P-6 Primavera by Oracle® . CM will be using P-6 to create and modify the Master Project Schedule. The Prime Contractors' individual CPM Schedules will be used by the CM for input into the Project Master Schedule.
- 2.2 STARTUP CONSTRUCTION SCHEDULE
- A. Bar-Chart Schedule: Submit startup, horizontal, bar-chart-type construction schedule within seven days of date established for the Notice to Proceed.
- 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. CPM Schedule: Prepare Contractor's construction schedule using 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.
  5. Utilize scheduling calendar which consider all holidays and or weekend work where no work will be performed
- B. CPM Schedule Preparation: Prepare and submit to CM a list of all activities required to complete the Work for acceptance or amendments. Using the startup network diagram, prepare a skeleton network to identify probable critical paths showing all the activities approved for scheduling. After these activities and WBS are agreed to, each Prime Contractor will be required to originate a project schedule for their Prime Contract Scope.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
    - a. Preparation and processing of submittals.
    - b. Mobilization and demobilization.
    - c. Purchase of materials.
    - d. Delivery.
    - e. Fabrication.
    - f. Utility interruptions.
    - g. Installation.
    - h. Work by Owner that may affect or be affected by Contractor's activities.

- i. Testing and commissioning.
    - j. Punch list and final completion.
    - k. Activities occurring following final completion.
  2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
  3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the sequencing and the Prime Contract CPM schedule within the limitations of the Contract Time as directed by CM.
  4. Format: Mark the critical path..
    - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
  5. (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.
- C. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
  1. Contractor or subcontractor and the Work or activity.
  2. Description of activity.
  3. Main events of activity.
  4. Immediate preceding and succeeding activities.
  5. Early and late start dates.
  6. Early and late finish dates.
  7. Activity duration in workdays.
  8. Total float or slack time.
  9. Average size of workforce.
- D. 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.
- E. Value Summaries: Prepare two cumulative value lists, sorted by finish dates.
  1. In first list, tabulate activity number, early finish date, dollar value, and cumulative dollar value.

2. In second list, tabulate activity number, late finish date, dollar value, and cumulative dollar value.
3. In subsequent issues of both lists, substitute actual finish dates for activities completed as of list date.
4. Prepare list for ease of comparison with payment requests; coordinate timing with progress meetings.
  - a. In both value summary lists, tabulate "actual percent complete" and "cumulative value completed" with total at bottom.
  - b. Submit value summary printouts one week before each regularly scheduled progress meeting.

## 2.4 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 weekly 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.

## 2.5 SPECIAL REPORTS

- A. General: Submit special reports directly to CM within one 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 CM in advance when these events are known or predictable.

## PART 3 - EXECUTION

### 3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
  1. In-House Option: CM may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
  2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.
- B. 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.
- C. Distribution: Distribute copies of approved schedule to Construction Manager, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post current copies in Prime Contractor's field office.
  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 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
  - 1. The submittal process will be administered through an online web service provided through *Procore*. Each contractor will require internet access. Web based training will be provided by *Procore* at no cost.

#### 1.3 DEFINITIONS

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

## PART 2 - PRODUCTS

### 2.1 SUBMITTAL SCHEDULE

- A. List of submittals: The Architect and Construction Manager will establish the list of submittals required on the *Procore* website for this Project.
- B. Submittal Schedule: Each Contractor shall input the date that each submittal will be received by the Architect on the *Procore* website established for this Project. 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 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 Schedule: Submit concurrently with startup construction schedule. Include submittals required during the first thirty (30) 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 Schedule: 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.
    - b. Final Submittal Schedule must be approved by the Architect before the second Application for Payment will be approved.
  - 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 final release or approval.
    - g. Scheduled date of fabrication.
    - h. Scheduled dates for purchasing.
    - i. Scheduled dates for installation.
    - j. Activity or event number.
  - 5. The submittal schedule will be available to be viewed on the *Procore* website by all Project team members.
  - 6. The submittal schedule shall indicate that all action submittals are to be sent to the Architect within sixty (60) days after the execution of the Owner/Contractor Agreement.
    - a. If a submittal cannot be sent to the Architect within the specified time period, then the Contractor shall provide an explanation for the additional time.

## 2.2 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic digital data files of the Contract Drawings will not be provided by Architect for Contractor's use in preparing submittals.
- B. Electronic Submittal Requirement: All action and informational submittals shall be submitted as PDF formatted files through *Procore*.
  - 1. Use the submittal number assigned by the Architect or Construction Manager through *Procore*.
  - 2. All submittals will be returned to the prime contractors electronically through *Procore*. No printed copies will be provided by the Architect to the contractors.
  - 3. Internet Service and Equipment Requirements:
    - a. Email address and Internet access at Contractor's main office.
    - b. *Adobe Acrobat* ([www.adobe.com](http://www.adobe.com)), *Bluebeam PDF Revu* ([www.bluebeam.com](http://www.bluebeam.com)), or other similar PDF review software for applying electronic stamps and comments.
- C. Submittal package: Assemble each submittal and re-submittal individually and appropriately for transmittal and handling.
  - 1. Provide a completed "Submittal Cover" form with each submittal. This form may be found in Section 006000.3 – "Submittal Cover". *The Submittal Cover shall be the first page of every submittal.*
    - a. Every submittal shall be accompanied by a fully executed copy of the Submittal Cover sheet. Ensure the following information for each submittal is completed on each submittal form:
      - 1) Contract number.
      - 2) Contract for: i.e. General Construction Contract.
      - 3) Contractors' name.
      - 4) Sub-contractor and suppliers name.
      - 5) Submission number and the date for each initial submittal and re-submittal.
      - 6) Shop drawings name and number.
      - 7) Contents.
      - 8) Name of manufacturer.
      - 9) Specification section paragraph number(s) showing product being submitted on.
      - 10) Signature of contractor indicating approval of the submittal with date of approval and all applicable check boxes marked.
- D. 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 reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- E. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence upon Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. It is the Contractor's responsibility to provide required submittals complete with enough information to show conformance with the construction documents in a time frame that will not affect the construction schedule. The construction schedule will not be extended due to the Architects' "RETURNED WITHOUT ACTION", "REJECTED" or "REVISE AND RESUBMIT" action on a submittal when the submittal is found to be lacking adequate information showing conformance with the contract documents and/or does not conform to the contract document requirements.
  2. The Architect will review a maximum of two submittals for any single item requiring a submission at no cost to the Contractor. Upon request by the Architect, the Contractor will compensate the Owner, via back charge for all further submissions to the Architect and/or Owner due to submissions that do not provided enough data to prove compliance with the specifications, or that in the opinion of the Architect do not meet the project specifications. Compensation will be computed by the additional hours needed to perform the review and correspondence multiplied by the Architect's normal billing rate.
  3. Initial Review: Allow ten (10) working days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  4. Resubmittal Review: Allow seven (7) working days for review of each resubmittal.
- F. Options: Identify options requiring selection by Architect.
- G. 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 on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

- H. 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 action stamp that indicates "NO EXCEPTION TAKEN", or "MAKE CORRECTIONS NOTED".
- I. 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. Provide one hard copy of approved submittal and shop drawings to the onsite Construction Managers Field office within 7 days form Architects approval.
- J. Use for Construction: Retain complete printed copies of all approved action submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

## PART 3 - EXECUTION

### 3.1 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. Post electronic submittals as PDF electronic files directly to Project Web site at **www.procore.com** specifically established for Project.
    - a. After their review, the Architect will post the annotated file to the Project's website. The Contractor will then be notified via e-mail that the submittal has been reviewed, and may download the submittal file.
    - b. The Contractor is responsible for printing hard copies of electronic submittals for their own use.
  - 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.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  1. Clearly mark each copy of each submittal in bold marking of contrasting color to show which products and options are applicable.
  2. Include the following information, as applicable:
    - a. Manufacturer's catalog cuts.
    - b. Manufacturer's product specifications.
    - c. Color charts.
    - d. Statement of compliance with specified referenced standards.
    - e. Testing by recognized testing agency.
    - f. Application of testing agency labels and seals.
    - g. Notation of coordination requirements.
    - h. Availability and delivery time information.
  3. 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.
  4. Submit Product Data before or concurrent with Samples.
  5. Submit Product Data in the following format:
    - a. PDF electronic file.
- 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.
  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 (215 by 280 mm), but no larger than 30 by 42 inches (750 by 1067 mm) .
  3. Submit Shop Drawings in the following format:

- a. PDF electronic file.
- 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.
    - a. Transmit samples via hand delivery, courier, or mail service to the Architect's Office.
    - b. Upload transmittal to *Procore*.
  2. Identification: Attach label on unexposed side of Samples that includes the following:
    - a. Project name and site name, if Project involves multiple site locations.
    - b. Submittal number assigned per submittal schedule.
    - c. Generic description of Sample.
    - d. Product name and name of manufacturer.
    - e. Sample source.
    - f. Number and title of applicable Specification Section.
    - g. Specification paragraph number and generic name of each item.
  3. For projects where electronic submittals are required, also provide corresponding electronic submittal of the completed Submittal Cover, a digital image file illustrating the Sample's characteristics, and identification information for record.
    - a. Transmit printed copies of the above along with the physical Sample in the same quantity as required for the Samples.
  4. Disposition: Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
  5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
    - a. Number of Samples: Submit three (3) full set(s) 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 one (1) 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 minimum Four (4) sets of Samples. Architect and Construction Manager will retain Three (3) Sample sets; remainder will be returned.
  - 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 (3) sets of paired units that show approximate limits of variations.
- 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 Division 01 Section "Project Management and Coordination."
- G. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."
- H. Application for Payment and Schedule of Values: Comply with requirements specified in the General Conditions of the Contract.
- I. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Division 01 Section "Quality Requirements."
- J. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 01 Section "Closeout Procedures."
- K. Maintenance Data: Comply with requirements specified in Division 01 Section "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.
- Y. Construction Photographs: Comply with requirements specified in Division 01 Section "Photographic Documentation."
- Z. Material Safety Data Sheets (MSDSs): Contractor shall provide and maintain a hard copy of all MSDS sheets at each Project Site as per OSHA requirements. Do not submit MSDS sheets to the Architect or Construction Manager.

### 3.2 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 and three (3) 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.

### 3.3 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.
- B. 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.

### 3.4 ARCHITECT'S ACTION

- A. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action, as follows:
  1. No Exception Taken – Submittal is approved and released for fabrication and can be incorporated into the work.
  2. Make Corrections Noted - Submittal is approved and released for fabrication and can be incorporated into the work with the modifications as noted.
  3. Revise & Resubmit – Submittal is not approved and resubmission is required per the Architect's comments. Such products cannot be purchased nor incorporated into the work.
  4. Rejected – Submittal is not approved and submission does not meet requirements of the Project. Resubmit products that conform to the Contract Documents.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Submittals not required by the Contract Documents may be returned by the Architect without action.

- E. Submittals that do not follow the protocol that is outlined in the applicable Specification Section, or this Section, of the Project Manual may be returned to the Contractor without action by the Architect.
- F. Submittal packages received from sources other than the Contractor, or other than from the Contractor via the Construction Manager, will be discarded by the Architect.

END OF SECTION 013300

## SECTION 014000 - QUALITY REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. 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, Construction Manager, or authorities having jurisdiction are not limited by provisions of this Section.
  - 4. Specific test and inspection requirements are not specified in this Section.

#### 1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect or Construction Manager.

- C. Mockups: Full-size physical assemblies that are constructed on-site. Mockups are 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 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 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. 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 having successfully completed a minimum of five previous projects similar in nature, size, and

extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

#### 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 maximum to be provided or performed. Refer uncertainties to Architect for a decision before proceeding.

#### 1.5 ACTION SUBMITTALS

- A. Shop Drawings: For integrated exterior mockups, 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.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data : For Contractor's quality-control personnel.
- C. 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.
- D. 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.

- E. 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.
- 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.
- E. Professional Engineer Qualifications: A NYS licensed 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, and laboratory mockups; do not reuse products on Project.
  2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to 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. Demolish and remove mockups when directed unless otherwise indicated.
- L. Integrated Exterior Mockups: Construct integrated exterior mockup according to approved Shop Drawings. Coordinate installation of exterior envelope materials and products for which mockups are required in individual Specification Sections, along with supporting materials.

#### 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. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders if applicable.
  3. 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 , Construction Manager, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect , 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, 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 special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, as indicated in Statement of Special Inspections attached to this Section, 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, 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, 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 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 RELATED DOCUMENTS

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

#### 1.2 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.

### 1.3 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.

### 1.4 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."
- B. 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](http://www.aabc.com).
  - 2. AAMA - American Architectural Manufacturers Association; [www.aamanet.org](http://www.aamanet.org).
  - 3. AAPFCO - Association of American Plant Food Control Officials; [www.aapfco.org](http://www.aapfco.org).
  - 4. AASHTO - American Association of State Highway and Transportation Officials; [www.transportation.org](http://www.transportation.org).
  - 5. AATCC - American Association of Textile Chemists and Colorists; [www.aatcc.org](http://www.aatcc.org).
  - 6. ABMA - American Bearing Manufacturers Association; [www.americanbearings.org](http://www.americanbearings.org).
  - 7. ACI - American Concrete Institute; (Formerly: ACI International); [www.concrete.org](http://www.concrete.org).
  - 8. ACPA - American Concrete Pipe Association; [www.concrete-pipe.org](http://www.concrete-pipe.org).
  - 9. AEIC - Association of Edison Illuminating Companies, Inc. (The); [www.aeic.org](http://www.aeic.org).
  - 10. AF&PA - American Forest & Paper Association; [www.afandpa.org](http://www.afandpa.org).
  - 11. AGA - American Gas Association; [www.aga.org](http://www.aga.org).

12. AHAM - Association of Home Appliance Manufacturers; [www.aham.org](http://www.aham.org).
13. AHRI - Air-Conditioning, Heating, and Refrigeration Institute (The); [www.ahrinet.org](http://www.ahrinet.org).
14. AI - Asphalt Institute; [www.asphaltinstitute.org](http://www.asphaltinstitute.org).
15. AIA - American Institute of Architects (The); [www.aia.org](http://www.aia.org).
16. AISC - American Institute of Steel Construction; [www.aisc.org](http://www.aisc.org).
17. AISI - American Iron and Steel Institute; [www.steel.org](http://www.steel.org).
18. AITC - American Institute of Timber Construction; [www.aitc-glulam.org](http://www.aitc-glulam.org).
19. AMCA - Air Movement and Control Association International, Inc.; [www.amca.org](http://www.amca.org).
20. ANSI - American National Standards Institute; [www.ansi.org](http://www.ansi.org).
21. AOSA - Association of Official Seed Analysts, Inc.; [www.aosaseed.com](http://www.aosaseed.com).
22. APA - APA - The Engineered Wood Association; [www.apawood.org](http://www.apawood.org).
23. APA - Architectural Precast Association; [www.archprecast.org](http://www.archprecast.org).
24. API - American Petroleum Institute; [www.api.org](http://www.api.org).
25. ARI - Air-Conditioning & Refrigeration Institute; (See AHRI).
26. ARI - American Refrigeration Institute; (See AHRI).
27. ARMA - Asphalt Roofing Manufacturers Association; [www.asphaltroofing.org](http://www.asphaltroofing.org).
28. ASCE - American Society of Civil Engineers; [www.asce.org](http://www.asce.org).
29. ASCE/SEI - American Society of Civil Engineers/Structural Engineering Institute; (See ASCE).
30. ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers; [www.ashrae.org](http://www.ashrae.org).
31. ASME - ASME International; (American Society of Mechanical Engineers); [www.asme.org](http://www.asme.org).
32. ASSE - American Society of Safety Engineers (The); [www.asse.org](http://www.asse.org).
33. ASSE - American Society of Sanitary Engineering; [www.asse-plumbing.org](http://www.asse-plumbing.org).
34. ASTM - ASTM International; (American Society for Testing and Materials International); [www.astm.org](http://www.astm.org).
35. ATIS - Alliance for Telecommunications Industry Solutions; [www.atis.org](http://www.atis.org).
36. AWEA - American Wind Energy Association; [www.awea.org](http://www.awea.org).
37. AWI - Architectural Woodwork Institute; [www.awinet.org](http://www.awinet.org).
38. AWMAC - Architectural Woodwork Manufacturers Association of Canada; [www.awmac.com](http://www.awmac.com).
39. AWPA - American Wood Protection Association; (Formerly: American Wood-Preservers' Association); [www.awpa.com](http://www.awpa.com).
40. AWS - American Welding Society; [www.aws.org](http://www.aws.org).
41. AWWA - American Water Works Association; [www.awwa.org](http://www.awwa.org).
42. BHMA - Builders Hardware Manufacturers Association; [www.buildershardware.com](http://www.buildershardware.com).
43. BIA - Brick Industry Association (The); [www.gobrick.com](http://www.gobrick.com).
44. BICSI - BICSI, Inc.; [www.bicsi.org](http://www.bicsi.org).

45. BIFMA - BIFMA International; (Business and Institutional Furniture Manufacturer's Association); [www.bifma.com](http://www.bifma.com).
46. BISSC - Baking Industry Sanitation Standards Committee; [www.bissc.org](http://www.bissc.org).
47. BWF - Badminton World Federation; (Formerly: International Badminton Federation); [www.bwfbadminton.org](http://www.bwfbadminton.org).
48. CDA - Copper Development Association; [www.copper.org](http://www.copper.org).
49. CEA - Canadian Electricity Association; [www.electricity.ca](http://www.electricity.ca).
50. CEA - Consumer Electronics Association; [www.ce.org](http://www.ce.org).
51. CFFA - Chemical Fabrics & Film Association, Inc.; [www.chemicalfabricsandfilm.com](http://www.chemicalfabricsandfilm.com).
52. CFSEI - Cold-Formed Steel Engineers Institute; [www.cfsei.org](http://www.cfsei.org).
53. CGA - Compressed Gas Association; [www.cganet.com](http://www.cganet.com).
54. CIMA - Cellulose Insulation Manufacturers Association; [www.cellulose.org](http://www.cellulose.org).
55. CISCA - Ceilings & Interior Systems Construction Association; [www.cisca.org](http://www.cisca.org).
56. CISPI - Cast Iron Soil Pipe Institute; [www.cispi.org](http://www.cispi.org).
57. CLFMI - Chain Link Fence Manufacturers Institute; [www.chainlinkinfo.org](http://www.chainlinkinfo.org).
58. CPA - Composite Panel Association; [www.pbmdf.com](http://www.pbmdf.com).
59. CRI - Carpet and Rug Institute (The); [www.carpet-rug.org](http://www.carpet-rug.org).
60. CRRC - Cool Roof Rating Council; [www.coolroofs.org](http://www.coolroofs.org).
61. CRSI - Concrete Reinforcing Steel Institute; [www.crsi.org](http://www.crsi.org).
62. CSA - Canadian Standards Association; [www.csa.ca](http://www.csa.ca).
63. CSA - CSA International; (Formerly: IAS - International Approval Services); [www.csa-international.org](http://www.csa-international.org).
64. CSI - Construction Specifications Institute (The); [www.csinet.org](http://www.csinet.org).
65. CSSB - Cedar Shake & Shingle Bureau; [www.cedarbureau.org](http://www.cedarbureau.org).
66. CTI - Cooling Technology Institute; (Formerly: Cooling Tower Institute); [www.cti.org](http://www.cti.org).
67. CWC - Composite Wood Council; (See CPA).
68. DASMA - Door and Access Systems Manufacturers Association; [www.dasma.com](http://www.dasma.com).
69. DHI - Door and Hardware Institute; [www.dhi.org](http://www.dhi.org).
70. ECA - Electronic Components Association; (See ECIA).
71. ECAMA - Electronic Components Assemblies & Materials Association; (See ECIA).
72. ECIA ? Electronic Components Industry Association; [www.eciaonline.org](http://www.eciaonline.org)
73. EIA - Electronic Industries Alliance; (See TIA).
74. EIMA - EIFS Industry Members Association; [www.eima.com](http://www.eima.com).
75. EJMA - Expansion Joint Manufacturers Association, Inc.; [www.ejma.org](http://www.ejma.org).
76. ESD - ESD Association; (Electrostatic Discharge Association); [www.esda.org](http://www.esda.org).
77. ESTA - Entertainment Services and Technology Association; (See PLASA).
78. EVO - Efficiency Valuation Organization; [www.evo-world.org](http://www.evo-world.org).
79. FIBA - Fédération Internationale de Basketball; (The International Basketball Federation); [www.fiba.com](http://www.fiba.com).

80. FIVB - Fédération Internationale de Volleyball; (The International Volleyball Federation); [www.fivb.org](http://www.fivb.org).
81. FM Approvals - FM Approvals LLC; [www.fmglobal.com](http://www.fmglobal.com).
82. FM Global - FM Global; (Formerly: FMG - FM Global); [www.fmglobal.com](http://www.fmglobal.com).
83. FRSA - Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc.; [www.floridarroof.com](http://www.floridarroof.com).
84. FSA - Fluid Sealing Association; [www.fluidsealing.com](http://www.fluidsealing.com).
85. FSC - Forest Stewardship Council U.S.; [www.fscus.org](http://www.fscus.org).
86. GA - Gypsum Association; [www.gypsum.org](http://www.gypsum.org).
87. GANA - Glass Association of North America; [www.glasswebsite.com](http://www.glasswebsite.com).
88. GS - Green Seal; [www.greenseal.org](http://www.greenseal.org).
89. HI - Hydraulic Institute; [www.pumps.org](http://www.pumps.org).
90. HI/GAMA - Hydronics Institute/Gas Appliance Manufacturers Association; (See AHRI).
91. HMMA - Hollow Metal Manufacturers Association; (See NAAMM).
92. HPVA - Hardwood Plywood & Veneer Association; [www.hpva.org](http://www.hpva.org).
93. HPW - H. P. White Laboratory, Inc.; [www.hpwhite.com](http://www.hpwhite.com).
94. IAPSC - International Association of Professional Security Consultants; [www.iapsc.org](http://www.iapsc.org).
95. IAS - International Accreditation Service; [www.iasonline.org](http://www.iasonline.org).
96. IAS - International Approval Services; (See CSA).
97. ICBO - International Conference of Building Officials; (See ICC).
98. ICC - International Code Council; [www.iccsafe.org](http://www.iccsafe.org).
99. ICEA - Insulated Cable Engineers Association, Inc.; [www.icea.net](http://www.icea.net).
100. ICPA - International Cast Polymer Alliance; [www.icpa-hq.org](http://www.icpa-hq.org).
101. ICRI - International Concrete Repair Institute, Inc.; [www.icri.org](http://www.icri.org).
102. IEC - International Electrotechnical Commission; [www.iec.ch](http://www.iec.ch).
103. IEEE - Institute of Electrical and Electronics Engineers, Inc. (The); [www.ieee.org](http://www.ieee.org).
104. IES - Illuminating Engineering Society; (Formerly: Illuminating Engineering Society of North America); [www.ies.org](http://www.ies.org).
105. IESNA - Illuminating Engineering Society of North America; (See IES).
106. IEST - Institute of Environmental Sciences and Technology; [www.iest.org](http://www.iest.org).
107. IGMA - Insulating Glass Manufacturers Alliance; [www.igmaonline.org](http://www.igmaonline.org).
108. IGSHPA - International Ground Source Heat Pump Association; [www.igshpa.okstate.edu](http://www.igshpa.okstate.edu).
109. ILI - Indiana Limestone Institute of America, Inc.; [www.iliai.com](http://www.iliai.com).
110. Intertek - Intertek Group; (Formerly: ETL SEMCO; Intertek Testing Service NA); [www.intertek.com](http://www.intertek.com).
111. ISA - International Society of Automation (The); (Formerly: Instrumentation, Systems, and Automation Society); [www.isa.org](http://www.isa.org).
112. ISAS - Instrumentation, Systems, and Automation Society (The); (See ISA).

113. ISFA - International Surface Fabricators Association; (Formerly: International Solid Surface Fabricators Association); [www.isfanow.org](http://www.isfanow.org).
114. ISO - International Organization for Standardization; [www.iso.org](http://www.iso.org).
115. ISSFA - International Solid Surface Fabricators Association; (See ISFA).
116. ITU - International Telecommunication Union; [www.itu.int/home](http://www.itu.int/home).
117. KCMA - Kitchen Cabinet Manufacturers Association; [www.kcma.org](http://www.kcma.org).
118. LMA - Laminating Materials Association; (See CPA).
119. LPI - Lightning Protection Institute; [www.lightning.org](http://www.lightning.org).
120. MBMA - Metal Building Manufacturers Association; [www.mbma.com](http://www.mbma.com).
121. MCA - Metal Construction Association; [www.metalconstruction.org](http://www.metalconstruction.org).
122. MFMA - Maple Flooring Manufacturers Association, Inc.; [www.maplefloor.org](http://www.maplefloor.org).
123. MFMA - Metal Framing Manufacturers Association, Inc.; [www.metalframingmfg.org](http://www.metalframingmfg.org).
124. MHIA - Material Handling Industry of America; [www.mhia.org](http://www.mhia.org).
125. MIA - Marble Institute of America; [www.marble-institute.com](http://www.marble-institute.com).
126. MMPA - Moulding & Millwork Producers Association; (Formerly: Wood Moulding & Millwork Producers Association); [www.wmmpa.com](http://www.wmmpa.com).
127. MPI - Master Painters Institute; [www.paintinfo.com](http://www.paintinfo.com).
128. MSS - Manufacturers Standardization Society of The Valve and Fittings Industry Inc.; [www.mss-hq.org](http://www.mss-hq.org).
129. NAAMM - National Association of Architectural Metal Manufacturers; [www.naamm.org](http://www.naamm.org).
130. NACE - NACE International; (National Association of Corrosion Engineers International); [www.nace.org](http://www.nace.org).
131. NADCA - National Air Duct Cleaners Association; [www.nadca.com](http://www.nadca.com).
132. NAIMA - North American Insulation Manufacturers Association; [www.naima.org](http://www.naima.org).
133. NBGQA - National Building Granite Quarries Association, Inc.; [www.nbgqa.com](http://www.nbgqa.com).
134. NCAA - National Collegiate Athletic Association (The); [www.ncaa.org](http://www.ncaa.org).
135. NCMA - National Concrete Masonry Association; [www.ncma.org](http://www.ncma.org).
136. NEBB - National Environmental Balancing Bureau; [www.nebb.org](http://www.nebb.org).
137. NECA - National Electrical Contractors Association; [www.necanet.org](http://www.necanet.org).
138. NeLMA - Northeastern Lumber Manufacturers Association; [www.nelma.org](http://www.nelma.org).
139. NEMA - National Electrical Manufacturers Association; [www.nema.org](http://www.nema.org).
140. NETA - InterNational Electrical Testing Association; [www.netaworld.org](http://www.netaworld.org).
141. NFHS - National Federation of State High School Associations; [www.nfhs.org](http://www.nfhs.org).
142. NFPA - NFPA; (National Fire Protection Association); [www.nfpa.org](http://www.nfpa.org).
143. NFPA - NFPA International; (See NFPA).
144. NFRC - National Fenestration Rating Council; [www.nfrc.org](http://www.nfrc.org).
145. NHLA - National Hardwood Lumber Association; [www.nhla.com](http://www.nhla.com).
146. NLGA - National Lumber Grades Authority; [www.nlga.org](http://www.nlga.org).
147. NOFMA - National Oak Flooring Manufacturers Association; (See NWFA).

148. NOMMA - National Ornamental & Miscellaneous Metals Association; [www.nomma.org](http://www.nomma.org).
149. NRCA - National Roofing Contractors Association; [www.nrca.net](http://www.nrca.net).
150. NRMCA - National Ready Mixed Concrete Association; [www.nrmca.org](http://www.nrmca.org).
151. NSF - NSF International; (National Sanitation Foundation International); [www.nsf.org](http://www.nsf.org).
152. NSPE - National Society of Professional Engineers; [www.nspe.org](http://www.nspe.org).
153. NSSGA - National Stone, Sand & Gravel Association; [www.nssga.org](http://www.nssga.org).
154. NTMA - National Terrazzo & Mosaic Association, Inc. (The); [www.ntma.com](http://www.ntma.com).
155. NWFPA - National Wood Flooring Association; [www.nwfa.org](http://www.nwfa.org).
156. PCI - Precast/Prestressed Concrete Institute; [www.pci.org](http://www.pci.org).
157. PDI - Plumbing & Drainage Institute; [www.pdionline.org](http://www.pdionline.org).
158. PLASA - PLASA; (Formerly: ESTA - Entertainment Services and Technology Association); [www.plasa.org](http://www.plasa.org).
159. RCSC - Research Council on Structural Connections; [www.boltcouncil.org](http://www.boltcouncil.org).
160. RFCI - Resilient Floor Covering Institute; [www.rfci.com](http://www.rfci.com).
161. RIS - Redwood Inspection Service; [www.redwoodinspection.com](http://www.redwoodinspection.com).
162. SAE - SAE International; (Society of Automotive Engineers); [www.sae.org](http://www.sae.org).
163. SCTE - Society of Cable Telecommunications Engineers; [www.scte.org](http://www.scte.org).
164. SDI - Steel Deck Institute; [www.sdi.org](http://www.sdi.org).
165. SDI - Steel Door Institute; [www.steeldoor.org](http://www.steeldoor.org).
166. SEFA - Scientific Equipment and Furniture Association; [www.sefalabs.com](http://www.sefalabs.com).
167. SEI/ASCE - Structural Engineering Institute/American Society of Civil Engineers; (See ASCE).
168. SIA - Security Industry Association; [www.siaonline.org](http://www.siaonline.org).
169. SJI - Steel Joist Institute; [www.steeljoist.org](http://www.steeljoist.org).
170. SMA - Screen Manufacturers Association; [www.smainfo.org](http://www.smainfo.org).
171. SMACNA - Sheet Metal and Air Conditioning Contractors' National Association; [www.smacna.org](http://www.smacna.org).
172. SMPTE - Society of Motion Picture and Television Engineers; [www.smpte.org](http://www.smpte.org).
173. SPFA - Spray Polyurethane Foam Alliance; [www.sprayfoam.org](http://www.sprayfoam.org).
174. SPIB - Southern Pine Inspection Bureau; [www.spib.org](http://www.spib.org).
175. SPRI - Single Ply Roofing Industry; [www.spri.org](http://www.spri.org).
176. SRCC - Solar Rating and Certification Corporation; [www.solar-rating.org](http://www.solar-rating.org).
177. SSINA - Specialty Steel Industry of North America; [www.ssina.com](http://www.ssina.com).
178. SSPC - SSPC: The Society for Protective Coatings; [www.sspc.org](http://www.sspc.org).
179. STI - Steel Tank Institute; [www.steeltank.com](http://www.steeltank.com).
180. SWI - Steel Window Institute; [www.steelwindows.com](http://www.steelwindows.com).
181. SWPA - Submersible Wastewater Pump Association; [www.swpa.org](http://www.swpa.org).
182. TCA - Tilt-Up Concrete Association; [www.tilt-up.org](http://www.tilt-up.org).
183. TCNA - Tile Council of North America, Inc.; (Formerly: Tile Council of America); [www.tileusa.com](http://www.tileusa.com).

184. TEMA - Tubular Exchanger Manufacturers Association, Inc.; [www.tema.org](http://www.tema.org).
185. TIA - Telecommunications Industry Association; (Formerly: TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance); [www.tiaonline.org](http://www.tiaonline.org).
186. TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance; (See TIA).
187. TMS - The Masonry Society; [www.masonrysociety.org](http://www.masonrysociety.org).
188. TPI - Truss Plate Institute; [www.tpinst.org](http://www.tpinst.org).
189. TPI - Turfgrass Producers International; [www.turfgrassod.org](http://www.turfgrassod.org).
190. TRI - Tile Roofing Institute; (Formerly: National Tile Roofing Manufacturing Association); [www.tilerroofing.org](http://www.tilerroofing.org).
191. UBC - Uniform Building Code; (See ICC).
192. UL - Underwriters Laboratories Inc.; [www.ul.com](http://www.ul.com).
193. UNI - Uni-Bell PVC Pipe Association; [www.uni-bell.org](http://www.uni-bell.org).
194. USAV - USA Volleyball; [www.usavolleyball.org](http://www.usavolleyball.org).
195. USGBC - U.S. Green Building Council; [www.usgbc.org](http://www.usgbc.org).
196. USITT - United States Institute for Theatre Technology, Inc.; [www.usitt.org](http://www.usitt.org).
197. WASTEC - Waste Equipment Technology Association; [www.wastec.org](http://www.wastec.org).
198. WCLIB - West Coast Lumber Inspection Bureau; [www.wclib.org](http://www.wclib.org).
199. WCMA - Window Covering Manufacturers Association; [www.wcmanet.org](http://www.wcmanet.org).
200. WDMA - Window & Door Manufacturers Association; [www.wdma.com](http://www.wdma.com).
201. WI - Woodwork Institute; (Formerly: WIC - Woodwork Institute of California); [www.wicnet.org](http://www.wicnet.org).
202. WMMPA - Wood Moulding & Millwork Producers Association; (See MMPA).
203. WSRCA - Western States Roofing Contractors Association; [www.wsrca.com](http://www.wsrca.com).
204. WPA - Western Wood Products Association; [www.wwpa.org](http://www.wwpa.org).

C. 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 (German Institute for Standardization); [www.din.de](http://www.din.de).
2. IAPMO - International Association of Plumbing and Mechanical Officials; [www.iapmo.org](http://www.iapmo.org).
3. ICC - International Code Council; [www.iccsafe.org](http://www.iccsafe.org).
4. ICC-ES - ICC Evaluation Service, LLC; [www.icc-es.org](http://www.icc-es.org).

D. 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](http://www.usace.army.mil).
2. CPSC - Consumer Product Safety Commission; [www.cpsc.gov](http://www.cpsc.gov).
3. DOC - Department of Commerce; National Institute of Standards and Technology; [www.nist.gov](http://www.nist.gov).
4. DOD - Department of Defense; <http://dodssp.daps.dla.mil>.
5. DOE - Department of Energy; [www.energy.gov](http://www.energy.gov).
6. EPA - Environmental Protection Agency; [www.epa.gov](http://www.epa.gov).
7. FAA - Federal Aviation Administration; [www.faa.gov](http://www.faa.gov).
8. FG - Federal Government Publications; [www.gpo.gov](http://www.gpo.gov).
9. GSA - General Services Administration; [www.gsa.gov](http://www.gsa.gov).
10. HUD - Department of Housing and Urban Development; [www.hud.gov](http://www.hud.gov).
11. LBL - Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; <http://eetd.lbl.gov>.
12. OSHA - Occupational Safety & Health Administration; [www.osha.gov](http://www.osha.gov).
13. SD - Department of State; [www.state.gov](http://www.state.gov).
14. TRB - Transportation Research Board; National Cooperative Highway Research Program; [www.trb.org](http://www.trb.org).
15. USDA - Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; [www.ars.usda.gov](http://www.ars.usda.gov).
16. USDA - Department of Agriculture; Rural Utilities Service; [www.usda.gov](http://www.usda.gov).
17. USDJ - Department of Justice; Office of Justice Programs; National Institute of Justice; [www.ojp.usdoj.gov](http://www.ojp.usdoj.gov).
18. USP - U.S. Pharmacopeia; [www.usp.org](http://www.usp.org).
19. USPS - United States Postal Service; [www.usps.com](http://www.usps.com).

E. 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](http://www.gpo.gov/fdsys).
2. DOD - Department of Defense; Military Specifications and Standards; Available from Department of Defense Single Stock Point; <http://dodssp.daps.dla.mil>.
3. DSCC - Defense Supply Center Columbus; (See FS).
4. FED-STD - Federal Standard; (See FS).
5. FS - Federal Specification; Available from Department of Defense Single Stock Point; <http://dodssp.daps.dla.mil>.
  - a. Available from Defense Standardization Program; [www.dsp.dla.mil](http://www.dsp.dla.mil).
  - b. Available from General Services Administration; [www.gsa.gov](http://www.gsa.gov).
  - c. Available from National Institute of Building Sciences/Whole Building Design Guide; [www.wbdg.org/ccb](http://www.wbdg.org/ccb).
6. MILSPEC - Military Specification and Standards; (See DOD).

7. USAB - United States Access Board; [www.access-board.gov](http://www.access-board.gov).
  8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).
- F. 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 Appliance and Repair, Home Furnishings and Thermal Insulation; [www.bearhfti.ca.gov](http://www.bearhfti.ca.gov).
  2. CCR; California Code of Regulations; Office of Administrative Law; California Title 24 Energy Code; [www.calregs.com](http://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](http://www.cal-iaq.org).
  5. CPUC; California Public Utilities Commission; [www.cpuc.ca.gov](http://www.cpuc.ca.gov).
  6. SCAQMD; South Coast Air Quality Management District; [www.aqmd.gov](http://www.aqmd.gov).
  7. TFS; Texas Forest Service; Forest Resource Development and Sustainable Forestry; <http://txforests-service.tamu.edu>.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

## SECTION 014533 GENERAL - SPECIAL INSPECTIONS

### PART 1 – GENERAL- SPECIAL INSPECTIONS

#### 1.1 GENERAL REQUIREMENTS

- A. Special Inspections and Structural Testing shall be in accordance with Chapter 15 of the *2018 International Building Code*.

#### 1.2 DEFINITIONS

- A. Registered Design Professional: Licensed Professional Engineer or Registered Architect whose seal appears in the Construction Drawings. Unless noted otherwise, references to the Registered Design Professional in this section refer to the Structural Engineer for building design.
- B. RDP for Geotechnical Engineering: Licensed Professional Engineer whose seal appears on the Geotechnical Investigation. The RDP for Geotechnical Engineering shall perform or oversee Agent 2 services as indicated in the Schedule of Special Inspections. If a Geotechnical Investigation was not performed or if the RDP for Geotechnical Engineering is not retained to perform Agent 2 services, a licensed Geotechnical Engineer shall be retained to perform these duties.
- C. Code Enforcement Official: Officer or other designated authority charged with administration and enforcement of the BCNYS.
- D. Special Inspector (SI): Professional Engineer licensed in the State of New York, acting on behalf of the Owner, that implements the Special Inspection Program for the project.
- E. Testing/Inspecting Agency: Agent retained by Special Inspector or Owner and coordinated by Special Inspector to perform some inspection services on behalf of Special Inspector.
- F. Testing/Inspecting Agency (Agent 1): Professional Engineer licensed in the State of New York that is qualified to perform structural inspections. The Special Inspector shall have a minimum of three years of experience performing inspections for similar projects.
- G. Testing/Inspecting Agency (Agent 2): Professional Geotechnical Engineer licensed in the state of New York that is qualified to perform inspections for preparation of building subgrades and foundations.

- H. Testing/Inspecting Agency (Agents 3 or 4): Agency or firm qualified to inspect certain structural elements and perform field and laboratory tests to determine the characteristics and quality of building materials and workmanship.
- I. Statement of Special Inspections: Documents prepared by the Registered Design Professional and filed with and approved by the Code Enforcement Official as a condition of obtaining a building permit. These documents include this specification and the Schedule of Special Inspections
- J. Schedule of Special Inspections: An itemized list of inspections, verifications, and tests (including frequency) required for the project and individuals, agencies, or firms who will be retained to perform these services. The Schedule of Special Inspections is located in Drawing S0.02.
- K. Seismic/Wind-Force-Resisting System: Components of the structural system that provide resistance to seismic/wind forces. These components are identified in the Schedule of Special Inspections.
- L. Inspect and Inspection: Visual observation of materials, equipment, or construction work as defined in the Statement of Special Inspections, to determine that the work is in substantial conformance with the requirements of the Contract Documents.
- M. Continuous Special Inspection: Full-time observation of work by the Special Inspector or Testing Agency while the work is being performed.
- N. Periodic Special Inspections: Part-time or intermittent observation of work by the Special Inspector or Testing Agency for work that has been or is being performed and at completion of work.

### 1.3 QUALIFICATIONS

- A. Special Inspector and Testing/Inspecting Agency shall be accepted by the Registered Design Professional (RDP) and the Code Enforcement Official.
- B. Special Inspections shall be performed by agents who have relevant experience for each category of inspections indicated in the drawings.
- C. Minimum qualifications of inspection agents are indicated in the drawings.

#### 1.4 SUBMITTALS

- A. Special Inspector and Testing/Inspecting Agency shall submit to the Registered Design Professional and Code Enforcement Official for review, a copy of their qualifications including names and qualifications of each inspector and technician who will be performing inspections or tests.
- B. Special Inspector and Testing/Inspecting Agency shall disclose past or current business relationship or potential conflict of interest with Contractor or Subcontractors whose work will be inspected or tested.

#### 1.5 PAYMENT

- A. Owner will engage and pay for services of Special Inspector and Testing/Inspecting Agency.
- B. If materials requiring Special Inspections are fabricated in a plant not within 200 miles of project site, Contractor shall be responsible for travel expenses of Special Inspector or Testing/Inspecting Agency.
- C. Contractor shall be responsible for cost of retesting or reinspection of work failing to comply with requirements of Contract Documents.

#### 1.6 OWNER RESPONSIBILITIES

- A. Owner will provide Special Inspector with complete set of Contract Documents sealed by the Registered Design Professional and approved by the Code Enforcement Official.

#### 1.7 CONTRACTOR RESPONSIBILITIES

- A. Contractor shall cooperate with Special Inspector and his agents so Special Inspections and testing may be performed without hindrance.
- B. As indicated in the Schedule of Special Inspections, Contractor shall notify Special Inspector or Testing/Inspecting Agency at least 48 hours in advance of a required inspection or test.
- C. Contractor shall provide incidental labor and facilities to provide access to work to be inspected or tested, to obtain and handle samples at site or at source of products to

be tested, to facilitate tests and inspections, and for storing and curing of test samples.

- D. If Special Inspections or testing require the use of Contractor's scaffolding to access work areas, Contractor shall provide competent person to perform daily evaluation of scaffolding to verify it is safe to use. Contractor shall notify Special Inspector and Testing Agent of this review before each use. Contractor is responsible for safe assembly and stability of scaffolding.
- E. Contractor shall keep latest set of Construction Drawings, field sketches, accepted shop drawings, and specifications at project site for field use by Inspectors and Testing Technicians.
- F. Contractor shall perform remedial work if required and sign nonconformance reports stating remedial work has been completed. Contractor shall submit signed reports to Special Inspector as work proceeds.
- G. The Special Inspection program shall not relieve Contractor of obligation to perform work in accordance with requirements of Contract Documents or from implementing an effective Quality Control program.
- H. Contractor shall be solely responsible for construction site safety.

#### 1.8 SPECIAL INSPECTOR RESPONSIBILITIES

- A. Special Inspector shall hold a Special Inspections preconstruction meeting at least 7 days prior to initial planned date for start of construction. Attendees shall include Contractors, Owner's Representative, Testing Agency, Special Inspector, and Registered Design Professionals for Structural Engineering and for Architecture. Discussions shall include the following:
  - 1. Review of specifications and Schedule of Special Inspections for work requiring Special Inspections.
  - 2. Responsibilities of Contractors, Owner, Testing Agency, Special Inspector, and Registered Design Professional.
  - 3. Notification and reporting procedures.
- B. Special Inspector shall record and distribute minutes from the Special Inspection Preconstruction meeting.
- C. Special Inspector shall review inspection and material testing reports and coordinate the services of the Testing/Inspecting Agencies as follows:

1. Verify inspections have been performed in accordance with the Schedule of Special Inspections.
  2. Verify reports are being distributed to the Contractor, Owner, Architect, Code Enforcement Official, and Registered Design Professional (RDP) for Structural Engineering.
  3. Verify discrepancies have been recorded and are being tracked.
- D. Special Inspector shall make site visits to inspect work as designated in the Statement of Special Inspections. Discrepancies will be brought to the attention of the Contractor and RDP.
- E. Special Inspector shall keep records of inspections.
- F. Special Inspector shall review Certificates of Compliance for conformance with the standards specified in the Contract Documents. Discrepancies will be brought to the attention of the Contractor and RDP.
- G. Special Inspector shall submit a final report of Special Inspections in accordance with Section 1.3 of this specification.

#### 1.9 LIMITS ON AUTHORITY

- A. Special Inspector or Testing/Inspecting Agency shall not release, revoke, alter, or enlarge on requirements of Contract Documents.
- B. Special Inspector or Testing/Inspecting Agency shall not have control over Contractor's means and methods of construction.
- C. Special Inspector or Testing/Inspecting Agency shall not be responsible for construction site safety.
- D. Special Inspector or Testing/Inspecting Agency shall not have authority to stop work.

### PART 2 - INSPECTIONS AND TESTING

#### 2.1 EXCAVATION, BACKFILL, COMPACTION

- A. Special Inspector shall perform inspections and verifications or coordinate the RDP for Geotechnical Engineering to perform inspections and verifications including the following:

1. Identify soils requiring undercutting and replacing while observing proof rolling and when subgrade is exposed.
  2. Verify mat footing bearing strata.
  3. Review and accept materials proposed by Contractor for use as compacted fill based on test data and information submitted by Testing Agency. Material approval shall be based on requirements and recommendations stated in Project Geotechnical and Subsurface Investigation.
  4. Observe and accept filling and compaction procedures.
  5. Observe and accept preparation of slab-on-grade subgrade and subbase.
- B. Testing Agency shall perform field density tests for building subgrades and for fill materials including slab subbase within building area in accordance with ASTM D 6938 as follows:
1. Mat footing subgrade and each stratum of soil on which mat footing will be placed.
  2. Building subgrade including slab subbase and each lift of compacted material.
  3. Inspect each subgrade and fill layer before further backfill or construction work is performed. Approval shall be based on satisfactory achievement of compaction criteria.
  4. Verify use of fill material and lift thicknesses in field.
- C. Testing Agency shall perform moisture content testing of slab subbase in accordance with ASTM D 6938.

## 2.2 CAST-IN-PLACE CONCRETE

- A. Special Inspector shall perform the following:
1. Inspect reinforcing steel and placement.
  2. Inspect embedded bolts and anchor rods prior to concrete placement.
- B. Testing Agency shall perform the following:
1. Verify use of required design mix.
  2. Sample and test concrete during placement as follows. Test shall be taken at point of discharge into structure:
    - a. Record specific locations where concrete was placed. Refer to column lines where possible.
    - b. For every other truck, record time concrete is batched as shown in truck ticket, time placement begins/sample time, and time truck is emptied.

- c. For every other truck, sample fresh concrete in accordance with ASTM C 172, except modified for slump to comply with ASTM C 94.
- d. For every other truck, perform slump test in accordance with ASTM C 143. Perform two slump tests for pumped concrete; one at truck and one at point of discharge.
- e. For normal-weight concrete, measure air content in accordance with ASTM C 231, pressure method.
- f. Record temperature of concrete for every other truck. Test in-place concrete temperature hourly when ambient temperature is 40 degrees F and below and when 80 degrees F and above.
- g. Record air temperature and general weather conditions (cloudy, windy, sunny, etc.).
- h. Record unit weight of fresh normal-weight concrete in accordance with ASTM C 138. Perform one test for each 50 cubic yard of concrete.
- i. Perform concrete compressive tests as follows:
  - 1) Prepare compressive test specimens in accordance with ASTM C 31. Take a set of six 6 x 12 cylinders or nine 4 x 8 cylinders for each 50 cubic yards of concrete or each 5,000 square feet of slab area for each type of concrete. Store undisturbed in insulated box during cold weather. Deliver to laboratory between 16 and 32 hours after making. Perform compressive tests in accordance with ASTM C 39: two 6 x 12 specimens (three 4 x 8 specimens) tested at 7 days, two 6 x 12 specimens (three 4 x 8 specimens) tested at 28 days, and two 6 x 12 specimens (three 4 x 8 specimens) retained for later testing if required.
  - 2) In cold weather or whenever steel erection is scheduled to commence less than 14 days after placement of supporting foundation concrete, cast additional set of four 6 x 12 specimens (six 4 x 8 specimens) for each 50 cubic yards or fraction thereof of supporting foundation concrete. Field-cure cylinders, and test two 6 x 12 specimens (three 4 x 8 specimens) at 7 days, retaining two 6 x 12 specimens (three 4 x 8 specimens) for later testing if required. Steel erection may not begin until supporting concrete obtains 75 percent of its design strength.
- j. Perform additional testing as follows if required:
  - 1) Take additional set of cylinders for compressive strength testing for each truck in which total time period between batching and completing placement has exceeded ACI-recommended, 90-minute-maximum time limit. Take additional cylinders within 10 minutes of placement completion.
  - 2) Make additional tests of in-place concrete when test results indicate specified concrete strengths or other characteristics have not been attained in structure.

- 3) Perform tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42 or by other methods acceptable to Architect.
- 4) Contractor shall reimburse Owner for cost of additional tests.
3. Inspect concrete placement for proper application techniques.
4. Inspect for maintenance of specified curing temperature and techniques.

#### .4 STRUCTURAL STEEL

##### A. Special Inspector shall perform the following:

1. Verify Fabricator maintains detailed fabrication and Quality Control procedures:
  - a. Review procedures for completeness and adequacy relative to code requirements.
  - b. If Fabricator is designated as AISC-Certified Fabricator, Special Inspection for shop-fabricated members and assemblies is not required.
  - c. If Fabricator is not designated as AISC-Certified Fabricator, Contractor shall reimburse Owner via execution of credit change order for cost of Special Inspections and testing in Fabricator's shop.
2. Review manufacturer's Certificates of Compliance for high-strength bolts and weld filler material.
3. Review certified mill test reports.
4. Inspect steel frame joint details for compliance with approved Construction Documents.

##### B. Testing Agency shall perform the following:

1. Material verification of high-strength bolts, nuts, and washers, including review of identification markings and manufacturer's Certificate of Compliance.
  - a. Test high-strength bolt assemblies in a tension measuring device to verify material conformance prior to installation. Assemble bolt, nut, and washer on a loose plate and tension by tightening nut to develop required tension in Table 4 of "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
2. Verification that copies of accepted field welding procedure specifications are available on site for reference by erector's welders.
3. Verification that erector's welder's qualifications are current and appropriate for joint type, welding position, and welding process to be used.
4. Verification that joint fit-up for partial and complete penetration groove welds are in compliance with AWS tolerances as follows:
  - a. Visually inspect 50 percent of joints scheduled for partial and complete penetration groove welds.

- c. Visually inspect 100 percent of moment connections that are part of the lateral force resisting system.
5. Inspect high-strength bolting.
6. Material verification of structural steel and metal deck, including review of identification markings.
7. Perform pull-out tests on adhesive, expansion, and sleeve anchors.
8. Material verification of weld filler materials, including review of identification markings.
9. Inspect welding of structural steel.
  - a. Visually inspect welds according to AWS.
  - b. Schedule inspection of field welding in timely manner utilizing vertical access means and methods utilized by Contractor to perform the welding.
11. Inspect condition of erected materials.
  - a. Visually inspect erected steel for damage.
  - b. Visually inspect connections and framing to verify compliance with Contract Documents and accepted shop drawings.
12. Inspect column plumbness:
  - a. Inspect erected columns for plumbness within tolerances specified in Section 051200, Part 3: Execution.
  - b. Inspect columns for fit up within tolerances specified in AISC *Manual of Steel Construction*, Specification Section M4.
14. Additional testing shall be performed as follows if required.
  - a. Testing Agency shall perform additional tests of connections and framing members field modified by Contractor to correct errors in shop drawings, fabrication, or erection.
  - b. Anchor rods and embedded structural supports incorrectly located or damaged after installation shall be field modified by Contractor as indicated in Section 033000, Paragraph 3.4 and tested by Testing Agency.
  - c. Testing and reporting of field modifications shall be in accordance with this section, Special Inspections, and have the following additional requirements:
    - I. Magnetic particle inspection according to ASTM E 709 is required for 100 percent of fillet welds.
    - II. Ultrasonic inspection according to ASTM E 587 is required for 100 percent of full-penetration welds.
    - III. Perform pull-out tests on 100 percent of each type of adhesive, expansion, or sleeve anchor used by applying a load equal to 125 percent of allowable pull-out strength listed in manufacturer's literature.
  - d. Contractor shall reimburse Owner for cost of additional tests performed.

## 2.5 COLD-FORMED METAL FRAMING

- A. Special Inspector shall perform the following:

1. Verify Fabricator maintains detailed fabrication and Quality Control procedures:
    - a. For Fabricators not previously registered and approved to perform such work without Special Inspection, review Quality Control procedures for completeness and adequacy relative to code requirements for Fabricator's scope of work.
  2. Visually inspect installation of clips and miscellaneous connectors.
  3. Visually inspect framing for damage, including trusses and truss bracing.
  4. Visually inspect framing and details.
- B. Testing Agent shall perform the following:
1. Verify member size and thickness.
  2. Verify weight of galvanized coating according to ASTM A 90.
  3. Visually inspect framing for damage.
  4. Visually inspect welds according to AWS.

### 3.1 COMMUNICATION

- A. Testing/Inspecting Agency shall immediately notify Contractor, Special Inspector, and Registered Design Professional by telephone, fax, or e-mail of test results failing to comply with requirements of Contract Documents.
- B. Special Inspector shall immediately notify Contractor of work found to be in nonconformance with Contract Documents during inspections. If nonconforming work is not corrected while Special Inspector is on-site, Special Inspector shall notify Registered Design Professional within 24 hours (one business day) and issue an inspection report noting the non-conformance.
- C. Special Inspector and each Testing/Inspecting Agent shall use a log to record and track non-conforming work during construction. Non-Conformance log shall include the following information:
1. Description of non-conformance.
  2. Date of non-conformance.
  3. Description of RDP response if received.
  4. Status of nonconformance: 'Open' or 'Closed.'

Updated log shall be attached to each inspection report. Special Inspector or Testing/Inspecting Agent may use Non-Conformance Log form provided at end of this section or other similar form.

- D. If non-conforming work is not corrected at time of substantial completion of structure or other appropriate time, Special Inspector shall notify Code Enforcement Official.

### 3.2 DISTRIBUTION OF REPORTS

- A. Testing/Inspecting Agency shall submit reports to Special Inspector and Registered Design Professional within 7 days of inspection or test. Legible handwritten reports may be submitted if final typed copies are not available.
- B. Special Inspector shall distribute reports to the Contractor, Owner, Architect, Code Enforcement Official, and RDP for Structural Engineering within 7 days of inspections. Legible handwritten reports may be submitted if final typed copies are not available.
- C. If requested by the Code Enforcement Official, Special Inspector shall submit interim reports that include inspections and tests performed since beginning of construction or since previous interim report. Interim reports shall be addressed to the Code Enforcement Official with copies sent to the Registered Design Professionals (Structural Engineer and Architect) and Contractor. Interim reports shall be signed by Agent performing inspections.

### 3.3 FINAL REPORT OF SPECIAL INSPECTIONS

- A. At completion of work, each Testing/Inspecting Agency shall submit Agent's Final Report of Special Inspections to Special Inspector stating work was completed in substantial conformance with Contract Documents and appropriate inspections and tests were performed. Testing/Inspecting Agency may use Agent's Final Report of Special Inspections form provided at end of this section or other similar form.
- B. At completion of work, Special Inspector shall compile a Final Report of Special Inspections including each Agent's Final Report of Special Inspections. The Final Report of Special Inspections shall state required inspections have been performed and itemize nonconforming work not corrected or resolved as required by the BCNYS. Interim reports from all Agents will not be included unless specifically requested by the Owner or Code Enforcement Official. The Final Report shall be stamped by a New York State Professional Engineer.
- C. Special Inspector may use Final Report of Special Inspections form provided at end of this section or other similar form based on CASE Form 102-2001.

- D. Special Inspector shall submit Final Report of Special Inspections to Registered Design Professional and Code Enforcement Official prior to issuance of a Certificate of Use and Occupancy.

END SECTION 014533

 <p><b>NYS EDUCATION DEPARTMENT</b>  <b>Office of Facilities Planning</b>  <b>89 Washington Avenue, Room 1060 EBA</b>  <b>Albany, NY 12234</b></p>	<p><b>STATEMENT OF SPECIAL INSPECTIONS AND TESTS</b>                  As required by the Building Code of NYS (2020 BCNYS)  <i>Note: The code listings below are not to be considered all inclusive.</i></p>
<p>BCNYS § 1704.2.3 requires the NYS Licensed Design Professional (of record) to complete the Statement of Special Inspections and Tests. Completion of the Statement of Special Inspections &amp; Tests, <b>and</b>; Submission to the Office of Facilities Planning with the Construction Permit Application is a condition for issuance of the Building Permit.</p>	
School District Pawling Central School District	Project Title 2021 Capital Project - Elementary School Renovations, Addition and Sitework
Building Elementary School	
SED Project # 131201-04-0001-024	Project Address 7 Haight Street, Pawling NY 12564
Architect/Engineer: Justin Pechar PE	
Sign and Stamp: 	
A/E Firm (or Dba): Greg Klokiw	Phone 518-463-8068
Date 9/26/2022	
Comments:	

INSPECTION AND TESTING Continuous & Periodic is as Defined by the BCNYS-CHAPTER 17 All reports to be submitted to the owners representative for use, approval and record.	CONTINUOUS	PERIODIC	REFERENCE STANDARD	BCNYS REFERENCE	CHECK IF REQUIRED	IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY
<b>A. Steel Construction</b> <span style="float: right;"><b>Ch. 22</b></span>						
1. Material verification of high-strength bolts, nuts and washers.		X	AISC 360	1705.2 2204	<input checked="" type="checkbox"/>	
2. Inspection of high-strength bolting.	X	X	AISC 360 ACI 318	1705.2 2204.2	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
3. Material verification of <b>Structural Steel. Open Web Steel Joist and Girders.</b> Basic protection of steel members, <b>Seismic Resistance</b>			AISC 360 ASTM A6, A514, A29 SJ100, 200 AISC 341	1705.2 2203, 2205 1705.2 2207	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
4. Spray Applied Fire Resistant Materials & Specialized Finishes			ASTM E605, E736	1705.14 1705.15	<input type="checkbox"/> <input type="checkbox"/>	
5. <b>Cold Formed Steel Construction-</b> load bearing. <b>Seismic Resistance</b>			AISI S100, S220, S240 ANSI/SDI -NC1.0, RD1.0, SDI-C, ASCE 7, 8 AISI S400	1704.2.5 2210 2211	<input type="checkbox"/> <input type="checkbox"/>	
6. Material verification of weld filler materials.			AWS D1.1, D1.3	1705.2 2204.1	<input checked="" type="checkbox"/>	
7. Inspection of welding:			ACI 318: 26.6.4	T 1705.3 2204	<input checked="" type="checkbox"/>	
a. Structural steel	X	X	AWS D1.1, D1.3	1705.2	<input checked="" type="checkbox"/>	
b. Reinforcing steel	X	X	AWS D1.1, D1.3	1705.3.1	<input type="checkbox"/>	
c. Cold Formed Steel Deck			AISC S100, ASCE 7, 8	1705.2.2	<input type="checkbox"/>	
8. Inspection of steel frame joint details.		X		1705.2	<input checked="" type="checkbox"/>	

INSPECTION AND TESTING Continuous & Periodic is as Defined by the BCNYS- CHAPTER 17 All reports to be submitted to the owners representative for use, approval and record.		CONTINUOUS	PERIODIC	REFERENCE STANDARD	BCNYS REFERENCE	CHECK IF REQUIRED	IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY
<b>B. Concrete Construction</b>		<b>Ch. 19</b>					
1.	Inspection of reinforcing steel, including prestressing tendons, and verify placement.		X	Ch. 21, 22 ACI 318; Ch 20, 25.2, 25.3, 26.6.1, 26.6.3 AISC 360	T 1705.3 1901 1905	<input checked="" type="checkbox"/>  <input type="checkbox"/>	
2.	Inspection of reinforcing steel bar welding.			ACI 318, AWS D1.4	T 1705.3	<input type="checkbox"/>	
3.	Inspection of anchors to be installed in concrete prior to and during placement.	X		ACI 318: 17.8.2, 17.8.2.4	T 1705.3	<input checked="" type="checkbox"/>	
4.	Verify use of required design mix.		X	ACI 318: Ch. 19, 26.4.3, 26.4.4	T 1705.3 1904 1908	<input checked="" type="checkbox"/>	
5.	Sampling fresh concrete: slump, air content, temperature, strength test specimens.	X		ASTM C172, C31 ACI 318: 26.5, 26.9, 26.10, 26.11	T 1705.3 1901 1905 1908	<input checked="" type="checkbox"/>  <input type="checkbox"/>	
6.	Inspection of placement for proper application techniques.	X		ACI 318: 26.5	T 1705.3	<input checked="" type="checkbox"/>	
7.	Inspection for maintenance of specified curing temperature and techniques.		X	ACI 318: 26.5	T 1705.3 1908 1909	<input checked="" type="checkbox"/>  <input type="checkbox"/>	
8.	Inspection of prestressed concrete.	X		ACI 318: 26.10	T 1705.3	<input type="checkbox"/>	
9.	Erection of precast concrete members.		X	ACI 318: 26.9	T 1705.3	<input type="checkbox"/>	
10.	Verification of in-situ concrete strength prior to stressing of tendons and prior to removal of shores and forms from beams and slabs.		X	ACI 318: 26.11.2	T 1705.3	<input type="checkbox"/>  <input type="checkbox"/>	
11	Inspection of formwork		X	ACI 318: 26.11.1.2 (b)	T 1705.3	<input type="checkbox"/>	

C. Masonry Construction					Ch. 21		
INSPECTION AND TESTING Continuous & Periodic as Defined by the BCNYS CHAPTER 17 All reports to be submitted to the owners representative for use, approval and record.	CONTINUOUS	PERIODIC	REFERENCE STANDARD		BCNYS REFERENCE	CHECK IF REQUIRED	IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY
<p><b>L1</b> = Level 1 Inspection required for nonessential facilities.</p> <p><b>L2</b> = Level 2 Inspection required for essential facilities.</p> <p>* In general, schools are not considered essential facilities unless they are a designated emergency shelter.</p>			ASTM E119 UL 263 ASTM C1364 ASTM C1670 ASTM A706 ASCE 7, 8	TMS 402, 403, 404, 504, 602	1705.4 2101 1604		
1. <u>Verify to ensure compliance:</u>							
a. Proportions of site prepared mortar and grout.		X L1 & L2			1705.4 2103.2	<input type="checkbox"/>	
b. Placement of masonry units and construction of mortar joints.		X L1 & L2			1705.4 T 1705.3	<input type="checkbox"/>	
c. Location and placement of reinforcement, connectors, tendons, anchorages.		X L1 & L2			1705.45 2103.4 T 1705.3	<input type="checkbox"/>	
d. Prestressing technique.		X L1			1705.4	<input type="checkbox"/>	
Grout space prior to grouting.	X L2				1705.4	<input type="checkbox"/>	
e. Grade and size of prestressing tendons and anchorages.		X L1			1705.4	<input type="checkbox"/>	
Placement of grout.	X L2				1705.4	<input type="checkbox"/>	
f. Grout specs prior to grouting.	X L2				1705.4	<input type="checkbox"/>	
2. <u>Inspection program shall verify:</u>							
a. Size and location of structural elements.		X L1 & L2			1704.5 1705.4	<input type="checkbox"/>	
b. Type, size, and location of anchors.	X L2	X L1			1705.4 T 1705.3	<input type="checkbox"/>	
c. Specified size, grade, and type of reinforcement.		X L1 & L2			1704.5	<input type="checkbox"/>	
d. Welding of reinforcing bars.	X L1 & L2				1704.5	<input type="checkbox"/>	
e. Cold/hot weather protection of masonry construction.		X L1 & L2			1704.5, 2104.3, 2104.4	<input type="checkbox"/>	
f. Prestressing force measurement and application.	X L2	X L1			1704.5	<input type="checkbox"/>	
3. <u>Verification accessory placement prior to grouting:</u>		X L1			1704.5, 2105.2.2, 2105.3	<input type="checkbox"/>	
	X L2					<input type="checkbox"/>	
4. Grout placement.	X L1				1704.5		
5. Preparation of grout specimens, mortar specimens, and/or prisms.	X L1 & L2				1704.5, 2105.2.2, 2105.3	<input type="checkbox"/>	
6. Compliance with documents and submittals.		X L1 & L2			1704.5	<input type="checkbox"/>	

<b>INSPECTION AND TESTING</b> <b>Continuous &amp; Periodic is as Defined by the BCNYS-CHAPTER 17</b> <b>All reports to be submitted to the owners representative for use, approval and record.</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>REFERENCE STANDARD</b>	<b>BCNYS REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY</b>
<b>D. Wood Construction</b> <span style="float: right;"><b>Ch. 23</b></span>						
1. Fabrication process of prefabricated <b>Wood Structural Elements</b> and assemblies.		X	Ch. 16 AWC, APA, CPA, DOC PS1, PS2	1704.6, 1705.5 2302, 2303 2304	<input type="checkbox"/>	
2. High-load diaphragms <b>Seismic Resistance</b>		X		1704, 1705, 1704.6 2304, 2305 2306, 2307, 2308	<input type="checkbox"/>	
<b>E. Soils</b> <span style="float: right;"><b>Ch. 18</b></span>						
1. Geotechnical Investigations, Excavations, Grading, Fill Damp-proofing/ Water-Proofing		X	ASTM, NYS DOT OSHA Appendix J- BCNYS	1704, 1706 1803, 1804, 1805	<input type="checkbox"/>	
2. <b>Flood &amp; Stormwater Hazards</b> [ per BCNYS 106 ]		X	<u>Local Highway Authority</u> <u>Flood Plain Admin.</u> Appendix G- BCNYS	1703 1610, 1611, 1612 1805.1.2.1	<input type="checkbox"/>	
<b>F. Specialized Foundations- Piers, Piles</b> <span style="float: right;"><b>Ch. 16</b></span>						
1. Deep Foundation Elements: Driven Piles Cast in Place Helical Piles		X		T 1705.7 T 1705.8 1705.7 1705.8 1705.9	<input type="checkbox"/>	
<b>G. Exterior Wall Coverings</b> <span style="float: right;"><b>Ch. 14</b></span>						
1. Exterior Insulation and Finish Systems (EIFS) MCM, HPL, Other Combustible Materials		X	ASTM E2568, E2273, E2570 E2393, E84 Ch. 16 NFPA 268, 275, 285, 286	1405, 1406, 1407, 1408 1704.2, 1705.12.5 1705.16	<input type="checkbox"/>	
<b>H. Misc.</b>						
1. Access Floors and Storage Racks Other Architectural, MEP Components <b>Seismic Resistance</b>		X		1705.12	<input type="checkbox"/>	
2. In-Situ Testing		X		1604.6, 1708	<input type="checkbox"/>	
3. Pre-Construction Load Testing		X		1604.7, 1709	<input type="checkbox"/>	
4. Fire Resistant Penetrations & Joints Fire Stops Testing for Smoke Control		X	Ch. 7 ASTM E119 UL 263	1705.17 1705.18	<input type="checkbox"/>	
5. <b>Pre-Submission:</b> <b>Inventory of all Fire-Resistant-Rated Construction- Level 2 Alterations and greater</b> [ per BCNYS 106 ]	X		verification required EBCNYS Ch. 3 C. of E. 155 Regulations.	<u>FCNYS 701.6</u> <u>BCNYS 703.7</u> 19CRR-NY XXXII	<input type="checkbox"/>	
6. <b>Pre-Submission:</b> <b>Hazardous Material Survey</b> <b>Water Quality Survey</b>	X X		verification required <u>ACM Letter- Certificate</u> C. of E. 155 Regulations.	US-EPA NYS-DOH	<input type="checkbox"/>	
7. Other:					<input type="checkbox"/>	

SECTION 01 45 33.02

SPECIAL INSPECTIONS AND PROCEDURES - SITE WORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 GENERAL REQUIREMENTS

- A. Special Inspections and Testing shall be in accordance with Chapter 17 of the Building Code of New York State, adopted 2010.
- B. The program of Special Inspection and Testing is a Quality Assurance program intended to ensure that the work is performed in accordance with the Contract Documents.
- C. This Specification Section is intended to inform the Contractor of the Owner's quality assurance program and the extent of the Contractor's responsibilities. This Specification Section also serves to inform the Special Inspector and Inspection and Testing Agents of their requirements and responsibilities.

1.03 SCHEDULE OF INSPECTIONS AND TESTS

- A. Required inspections and tests are described in Schedule at the end of the Statement of Special Inspections.

1.04 QUALIFICATIONS

- A. The Inspection and Testing Agents, including testing laboratories, shall be approved by the Owner's Representative and the Design Professional in Responsible Charge.
- B. The following specific requirements for Inspection and Testing Agents may be waived by the Design Professional in Responsible Charge.
  - 1. Inspectors performing inspections of soils shall have background in geotechnical engineering.
  - 2. The testing laboratories shall maintain a full time licensed Professional Engineer on staff who shall certify all test reports. This Engineer shall be responsible for the

training of the testing technicians and shall be in responsible charge of the field and laboratory testing operations.

3. Technicians performing sampling and testing of concrete shall be ACI certified Concrete Field Testing Technicians - Grade 1.
4. Inspectors performing inspections of concrete work such as inspections of concrete placement, batching, reinforcing placement, curing and protection, shall be ACI certified Concrete Construction Inspectors or ICBO Reinforced Concrete Special Inspector in lieu of being a licensed P.E. or EIT.
5. Technicians performing standard tests described by specific ASTM Standards shall have training in the performance of such tests and must be able to demonstrate either by oral or written examination competence for the test to be conducted. They shall be under the supervision the Owner's Representative and shall not be permitted to independently evaluate test results.

#### 1.05 SUBMITTALS

- A. Inspection and Testing Agents shall submit to Owner's Representative and Design Professional in Responsible Charge for review a copy of their qualifications which shall include names and qualifications of each of the individual inspectors and technicians who will be performing inspections or tests.
- B. Inspection and Testing Agents shall disclose any past or present business relationship or potential conflict of interest with the Contractor or any of the Subcontractors whose work will be inspected or tested.

#### 1.06 PAYMENT

- A. The Owner will engage and pay for the services of the Inspection and Testing Agents.
- B. If any materials which require Special Inspections are fabricated in a plant which is not located within 100 miles of the project, the Contractor shall be responsible for the travel expenses of the Special Inspector or Inspection and Testing Agents.
- C. The Contractor shall be responsible for the cost of any retesting or reinspection of work which fails to comply with the requirements of the Contract Documents.

#### 1.07 CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall cooperate with the Inspection and Testing Agents so that the Special Inspections and Testing may be performed without hindrance.

- B. The Contractor shall provide adequate OSHA-compliant access for the Inspection and Testing Agents, for them to perform their work.
- C. The Contractor shall review the Statement of Special Inspections and shall be responsible for coordinating and scheduling inspections and tests. The Contractor shall notify the Inspection and Testing Agents at least 24 hours in advance of a required test, and 3 working days in advance of a required inspection. Un-inspected work that required inspection may be rejected solely on that basis.
- D. The Contractor shall provide incidental labor and facilities to provide access to the work to be inspected or tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- E. The Contractor shall keep at the project site the latest set of construction drawings, field sketches, approved shop drawings, and specifications for use by the Special Inspector and Inspection and Testing Agents.
- F. The Special Inspection program shall in no way relieve the Contractor of his obligation to perform work in accordance with the requirements of the Contract Documents or from implementing an effective Quality Control program. All work that is to be subjected to Special Inspection and Testing shall first be reviewed by the Contractor's quality control personnel.
- G. The Contractor shall be solely responsible for construction site safety.

#### 1.08 LIMITS ON AUTHORITY

- A. The Inspection and Testing Agents may not release, revoke, alter, or enlarge on the requirements of the Contract Documents.
- B. Inspection and Testing Agents will not have control over Contractor's means and methods of construction.
- C. The Inspection and Testing Agents shall not be responsible for construction site safety.
- D. The Inspection and Testing Agents have no authority to stop the work.

#### 1.09 STATEMENT OF SPECIAL INSPECTIONS

- A. The Statement of Special Inspections will be prepared by the Design Professional in Responsible Charge.

- B. The Statement of Special Inspections shall be submitted to the State Education Department with the application for Building Permit.

#### 1.10 RECORDS AND REPORTS

- A. Inspection and Testing Agents shall prepare detailed daily reports of each inspection or test and submit reports to Owner's Representative and Design Professional in Responsible Charge. Reports shall include:
  - 1. Date of test or inspection.
  - 2. Name of inspector or technician.
  - 3. Location of specific areas tested or inspected.
  - 4. Description of test or inspection and results.
  - 5. Applicable ASTM standard.
  - 6. Weather conditions (for site inspections or testing).
  - 7. Signature of inspector, or of the individual overseeing the testing.
- B. The Inspection and Testing Agents shall report any discrepancies from the Contract Documents found during an inspection. If the discrepancies are not corrected during the inspection, the Inspection and Testing Agents shall notify the Owner's Representative and Design Professional in Responsible Charge. Reports shall document all discrepancies identified and the corrective action taken.
- C. The Testing Laboratory shall promptly notify the Design Professional in Responsible Charge and the Owner's Representative by telephone, fax or email of any test results which fail to comply with the requirements of the Contract Documents.
- D. The Inspection and Testing Agents shall submit reports to the Owner's Representative and Design Professional in Responsible Charge within 7 days of the inspection or test. Handwritten reports may be submitted if final typed copies are not available.
- E. At the completion of the work requiring Special Inspections, each Inspection and Testing Agent, including laboratories, shall provide a statement to the Owner's Representative and Design Professional in Responsible Charge that all work was completed in substantial conformance with the Contract Documents and that all appropriate inspections and tests were performed.

#### 1.11 FINAL REPORT OF SPECIAL INSPECTIONS

- A. Final Report of Special Inspections shall be completed by Design Professional in Responsible Charge and submitted to New York State Education Department prior to issuance of Certificate of Use and Occupancy.

- B. The Final Report of Special Inspections will certify that all required inspections have been performed and will itemize any discrepancies that were not corrected or resolved.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

PART 4 – SCHEDULE

INSPECTION AND TESTING (Continuous & Periodic is as Defined by the BCNYS)	CONTINUOUS	PERIODIC	REFERENCE STANDARD	BCNYS REFERENCE	CHECK IF REQUIRED	IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY
A. Concrete Construction					.	
1. Inspection of reinforcing steel.		X	ACI 318: 3.5, 7.1-7.7	1704.4, 1903.5, 1907.1, 1907.7, 1914.4	√	Notes on Plans
2. Verify use of required design mix.		X	ACI 318: Ch. 4, 5.2-5.4	1704.4, 1904, 1905.2-1905.4, 1914.2, 1914.3	√	Notes on Plans
3. Sampling fresh concrete: slump, air content, temperature, strength test specimens.	X		ASTM C 172, C 31; ACI 318: 5.6, 5.8	1704.4, 1905.6, 1914.10	√	Notes on Plans
4. Inspection of placement for proper application techniques.	X		ACI, 318: 5.9, 5.10	1704.4, 1905.9, 1905.10, 1914.6, 1914.7, 1914.8	√	Notes on Plans
5. Inspection for maintenance of specified curing temperature and techniques.		X	ACI, 318: 5.11, 5.13	1704.4, 1905.11, 1905.13, 1914.9	√	Notes on Plans

INSPECTION AND TESTING (Continuous & Periodic is as Defined by the BCNYS)	CONTINUOUS	PERIODIC	REFERENCE STANDARD	BCNYS REFERENCE	CHECK IF REQUIRED	IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY
E. Soils						
1. Site preparation.				1704.7.1		
2. During fill placement.		X		1704.7.2	√	Notes on Plans
3. Evaluation of in-place density.		X		1704.7.3	√	Notes on Plans

END OF SECTION 01 45 33



## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Sections include the following:
  - 1. Division 01 Section "Multiple Contract Summary" for division of responsibilities for temporary facilities and controls.
  - 2. Division 01 Section "Execution and Closeout Requirements" for progress cleaning requirements.
  - 3. Divisions 02 through 33 Sections for temporary heat, ventilation, and humidity requirements for products in those Sections.

#### 1.3 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

#### 1.4 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. 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. Water Service: The Owner's existing water service will be available for use by all entities for construction operations, without metering and without payment of use charges.
  - 1. Provide connections and extensions of services as required for construction operation and in accordance with authorities having jurisdiction.

- C. Electric Power Service: The Owner shall pay electric power service use charges for electricity used by all entities for construction operations.
  - 1. The Owner shall supply single-phase electric power for use by all Prime Contracts.
  - 2. All other power requirements will be at the expense of the contractor requiring said power.
- D. Telephone/Internet Access Service: Each Prime Contractor shall be responsible for service and use charges associated with their respective telephone and Internet access requirements.

#### 1.5 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel, if not indicated in the Construction Documents.

#### 1.6 QUALITY ASSURANCE

- A. Electric: If required, comply with NECA, NEMA, and UL standards and regulations for temporary electric. Electrical work to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

#### 1.7 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Installer of each permanent service shall 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.
- B. Owner's Facilities: Contractors are not allowed to use the Owner's facilities (toilets, telephone, food service, etc.) for their own benefit. Prime Contract Superintendents shall enforce this policy with their respective work forces.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Chain-Link Fencing (driven posts): 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.
  - 1. Provide gate openings to accommodate vehicle delivery traffic or as noted. Install gateposts in sizes required for support gates.
- B. Portable Chain-Link Fencing (hard or finished surfaces): Minimum 2-inch, 9-gauge, 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 galvanized steel bases and weights for supporting posts.
- C. Wood Enclosure Fence: Plywood, 8 feet high, framed with four 2 by 4-inch rails, with preservative-treated wood posts spaced not more than 8 feet apart.
- D. Lumber and Plywood: Comply with requirements in Division 06 Section "Miscellaneous Rough Carpentry."
- E. Gypsum Board: Minimum 1/2-inch-thick by 48 inches wide by maximum available lengths; Type X panels with tapered edges. Comply with ASTM C 36/C 36M.
- F. Insulation: Un-faced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.
- G. Paint: Comply with requirements in Division 09 painting Sections.
- H. Floor Protection: *Ram Board* heavy-duty temporary floor protection. Non-staining, re-usable, disposable, breathable fiber-based rolled good, made of recycled material. Utilize manufacturer approved seam tape, and various configurations of product for protecting adjacent walls.

### 2.2 TEMPORARY FACILITIES

- A. Field Offices & Storage Containers: The site has limited space available for temporary storage containers during the school year as indicated within the Staging Plan. There is no room for office trailers on this site. Additionally, all prime contractors will be allowed one storage container on site as indicated within the Staging Plan. During the summer months there will be more space available however laydown of materials must be

coordinated with the owner, construction manager and the Site contractor. These facilities will be allowed with the following conditions;

1. Ground protection provided if placed on pavement. Placement on non paved areas will require restoration to original or scheduled condition.
2. Storage of combustible materials must be away from building and stored as required by OSHA and any other authorities having jurisdiction.
3. Area(s) in and around are maintained in a clean and orderly fashion.

## 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: Unless the Owner authorizes use of permanent HVAC system, provide vented, self-contained, temporary heating units, fueled by liquid-propane-gas 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 testing agency acceptable to authorities having jurisdiction, and marked for intended use.
  3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of (8) eight at each return air grille in system and remove at end of construction.

## 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.
  1. Locate facilities to limit site disturbance as specified in Division 01 Section "Summary."
- 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: 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: Not Applicable.
- C. Water Service: Use of Owner's water service will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At or prior to Substantial Completion, restore these facilities to condition existing before initial use. Additional precautions must be taken during winter months to avoid interruption to the owner's daily program.
- D. Sanitary Facilities: The General Work contractor shall provide temporary toilets and wash facilities for use by all construction personnel. Drinking water shall be provided by each prime contractor for their own personnel. Comply with authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Heating: The General Work contractor shall provide temporary heat (including related LP Gas/fuel) required for construction activities for curing or drying of installations or for protecting installed construction from adverse effects of low temperatures or high humidity, by maintaining a minimum of 50 degrees F. 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: Use of Owner's electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.
  - 1. Provide electric power service and distribution system expansion of sufficient size, capacity, and power characteristics required for construction operations by all Prime Contracts and their subcontractors. Refer to Section 011200 "Multiple Contract Summary" for further requirements.
- 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. Lighting shall meet minimum OSHA requirements and be increased at the request of the Construction Site representative, at no additional cost to the Owner.
3. Refer to Section 011200 "Multiple Contract Summary" for further requirements.

### 3.3 SUPPORT FACILITIES INSTALLATION

#### A. General: Comply with the following:

1. Provide incombustible construction for offices, shops, and sheds located within construction area or within 30 feet of building lines. Comply with NFPA 241.
2. Maintain support facilities until near Substantial Completion. 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 in same location as permanent roads and paved areas. 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 Division 31 Section "Earth Moving."
3. Recondition base after temporary use, including removing contaminated material, re-grading, proof rolling, compacting, and testing.
4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion, or as indicated in the Construction Documents. Repair hot-mix asphalt base-course pavement before installation of final course according to Division 32 Section "Asphalt Paving."
5. Provide dust-control treatment that is nonpolluting and non-tracking. Reapply treatment as required to minimize dust.

#### C. 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.
3. Contractors should be mindful of work happening on an active school campus. A spotter must be present with all deliveries and or construction traffic happening

outside of secured fenced in areas. There are restricted times where no deliveries and or construction traffic will be allowed as follows:

- a. Morning Arrival – 8:40 to 9:15 AM
- b. Afternoon Dismissal – 3:00 to 3:35 PM

- D. 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 nor endanger permanent Work or temporary facilities.
  2. Remove snow and ice as required to minimize accumulations.
- E. Temporary Signs: Provide signs as indicated on Drawings or in Specifications. Install signs where indicated to inform public and individuals seeking entrance to Project. Unauthorized signs are not permitted.
1. Provide temporary, directional signs for construction personnel and visitors.
  2. Maintain and touchup signs so they are legible at all times.
  3. Refer to requirements specified in Division 01 Section " Multiple Contract Summary".
- F. Waste Disposal Facilities: Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal, and Multiple Contract Summary".
- G. 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.
- H. Existing Elevator Use: If available and acceptable to the owner, use of Owner's existing elevators may be permitted. If owner grants permission protective pads are to be installed and elevators are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion or more frequently, restore elevators to condition existing before initial use, including replacing worn cables, guide shoes, and similar items of limited life. Contractors are to understand the elevators are used by the owner on a daily basis during the school year.
1. Do not load elevators beyond their rated weight capacity.
  2. Provide protective coverings, barriers, devices, signs, or other procedures to protect elevator car and entrance doors and frame. If, despite such protection, elevators become damaged, engage elevator Installer to restore damaged work so no evidence remains of correction work. Return items that cannot be refinished in field to the shop, make required repairs and refinish entire unit, or provide new units as required.

- I. Existing Stair Usage: Use of Owner's existing stairs will be permitted, as long as stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion or more frequently, restore stairs to condition existing before initial use.
  1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If, despite such protection, stairs become damaged, restore damaged areas at no cost to the owner so no evidence remains of correction work.

### 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- B. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction.
  1. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- C. Storm water Control: Comply with authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of storm water from heavy rains.
- D. 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.
- E. 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. Obtain extended warranty for Owner. Perform control operations lawfully, using environmentally safe materials.
- F. Site Enclosure Fence: Before construction operations begin, 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 by Staging Plans and additionally around any open excavation or work area outside of the staging limits.
  2. Maintain security by limiting number of keys and restricting distribution to authorized personnel.

- G. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. 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 not complete, provide thermal insulation of temporary enclosures.
- J. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.
  - 1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant plywood on construction operations side, or as otherwise indicated in the Construction Documents.
  - 2. Construct dustproof partitions with 2 layers of 3-mil polyethylene sheet on each side. Cover floor with 2 layers of 3-mil polyethylene sheet, extending sheets 18 inches up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant plywood.
    - a. Construct vestibule and airlock at each entrance through temporary partition with not less than 48 inches between doors. Maintain water-dampened foot mats in vestibule.
  - 3. Insulate partitions to provide noise protection to occupied areas.
  - 4. Seal joints and perimeter. Equip partitions with dustproof doors and security locks.
  - 5. Protect air-handling equipment.
  - 6. Weather strip openings.
  - 7. Provide walk-off mats at each entrance through temporary partition.
- K. 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.
  - 1. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
  - 2. Develop and supervise an overall fire-prevention 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.

3. 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 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. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. 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. Consider inserting specific removal requirements, as illustrated in first subparagraph below.
  2. Repair all areas to permanent or original conditions.
  3. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 Section "Closeout Procedures."

END OF SECTION 015000

## SECTION 015060 - WORK UNDER UNUSUAL CONDITIONS

### PART 1 - DESCRIPTION

#### 1.1 WORK AFTER DARK

- A. Unless specifically required elsewhere herein, the contractor shall perform no work after dark except in emergencies. When time permits, he shall inform the Architect and Owners Representative in advance of such work and shall obtain approval. When time does not permit advance notice to the Architect and Owners Representative, he shall inform the Architect and Owners Representative at the earliest possible moment.
- B. The placing of concrete shall be so scheduled as to be started early enough in daylight hours to allow sufficient time for the completion of the section under construction before dark, including the work of finishers.
- C. When, in order to minimize interference with existing structures or utilities, or maintain traffic, it may, in the opinion of the Architect and Owners Representative, be expedient or necessary to do work after dark, such work shall be performed by the Contractor at no additional cost to the Owner, and the Contractor shall provide adequate lighting at no added cost to the Owner.

#### 1.2 SATURDAY AND OVERTIME WORK

- A. No Saturday or overtime work shall be scheduled, or performed by Contractor, unless noted otherwise, without prior approval by the Architect and Owners Representative. Proposed work schedule shall be submitted to Architect and Owners Representative a minimum of three days prior to proposed start unless otherwise directed or approved by Architect and Owners Representative.

#### 1.3 WORK ON SUNDAYS OR HOLIDAYS

- A. The Contractor shall do no work on Sundays, or locally recognized legal Holidays, except in an emergency or as indicated, and then shall confine his operations to only the work considered necessary to be performed at such time. In the event of an emergency, Contractor shall notify the Architect and Owners Representative the same day or as soon as possible.

#### 1.4 WORK IN STORMS

- A. Masonry work, and the mixing and placing of concrete shall be halted during rainstorms and all fresh work shall be immediately protected with suitable coverings. The Contractor shall keep a sufficient quantity of such coverings at the Site at all times.

1.5 WORK IN COLD WEATHER

- A. Certain Specifications contain provisions prohibiting the performance of certain work in cold weather, or outlining the conditions under which such work may be so performed. In the absence of specific mention elsewhere in the Contract Documents, the judgment of the Architect shall govern in any case where temperature may adversely affect or prevent the performance of good work.
  
- B.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 015060

## SECTION 016000 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.

#### 1.3 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
  - 3. Comparable Product and "Or Equivalent": Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that are equivalent or exceed those of specified product. To be considered acceptable by Architect they shall perform the functions imposed by the general design and meet the standards of named items and are submitted as herein indicated.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

#### 1.4 SUBMITTALS

- A. Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
  - 1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
  - 2. Form: Tabulate information for each product under the following column headings:
    - a. Specification Section number and title.
    - b. Generic name used in the Contract Documents.
    - c. Proprietary name, model number, and similar designations.
    - d. Manufacturer's name and address.
    - e. Supplier's name and address.
    - f. Installer's name and address.
    - g. Projected delivery date or time span of delivery period.
    - h. Identification of items that require early submittal approval for scheduled delivery date.
  - 3. Initial Submittal: Before Execution of the Agreement, submit 4 copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
    - a. Furnish within 3 calendar days following the bid opening.
    - b. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.
  - 4. Completed List: Within 10 days after the openings of the bid, submit 4 copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
  - 5. Architect's Action: Architect will respond in writing to Contractor within 15 days of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement to comply with the Contract Documents.
- B. Substitution Requests: After Execution of Agreement: Submit substitution requests no later than within 30 calendar days. Request received later, may be considered or

rejected at the discretion of Architect and shall be submitted as follows. Submit four copies of each request for consideration to the Architect. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use CSArch standard form included in the Project Manual.
2. Identify specification Section including the date of request and all Prime Contracts involved.
3. Identify the product, or the fabrication or installation method to be replaced in each request.
4. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
  - a. Statement indicating why specified material or product cannot be provided.
  - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
  - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested.
  - f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
  - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
  - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
  - i. Detailed comparison of Prime Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
  - j. Cost information, including a proposal of change, if any, in the Contract Sum.
  - k. Prime Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.

- I. Prime 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.
5. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
  - a. Form of Acceptance: Change in Condition (CIC).
  - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- C. Comparable Product Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
    - a. Form of Approval: As specified in Division 01 Section "Submittal Procedures."
    - b. Use product specified if Architect cannot make a decision on use of a comparable product request within time allocated.
- D. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.
- E. Processing Time: Time for review shall commence on Architect's receipt of request. Allow enough time for request review, including time for evaluation of requested additional information or documentation, as follows:
  1. Initial Review: Allow 10 working days minimum, for initial review of each request. Allow additional time if processing must be delayed to permit coordination of concurrent review.
    - a. Architect will request of Prime Contractor additional information or documentation for evaluation within 5 working days of receipt of a request for Initial Review.
  2. Concurrent Review: Where concurrent review of requests by Architect's consultants, Owner or other Parties is required, allow 15 working days minimum for Initial Review of each request.
    - a. Architect will advise Prime Contractor when a request being processed must be delayed for concurrent review.
    - b. Architect will request of Prime Contractor additional for evaluation within 7 working days of a request requiring Concurrent Review.

3. Architect will notify Prime Contractor of acceptance or rejection of proposed substitution within 15 working days minimum of receipt of additional information or documentation, whichever is later.
4. Use product specified if Architect cannot make a decision on use of a requested substitution within time indicated.
5. Form of Acceptance: Change Order.
  - a. Follow Division 1 Section "Contract Modification Procedures" for handling and processing Change Order.

#### 1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
  1. Each Prime Contractor is responsible for providing products and construction methods compatible with products and construction methods of other Prime Contractors.
  2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.
    - a. Coordinate with other Prime Contractor's compatible product issues at Project's progress meetings.

#### 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
  1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
- C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store cementitious products and materials on elevated platforms.
5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.
8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

#### 1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
  1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
  2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
  1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
  3. Refer to Divisions 02 through 49 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures." Insert specific requirements if a single warranty must cover work by several contractors. Prepare draft of such warranty with advice of Owner's legal counsel and include it at end of this Section.

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
  4. Where products are accompanied by the term "as selected," Architect will make selection.
  5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
  6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
  7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
1. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
  2. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
  3. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
  4. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named or un-named manufacturers. Drawings and Specifications

indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product by the other named manufacturers.

5. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
  - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
6. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
  - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
  - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.
  - c. Custom: Where Specifications include the phrase "Custom colors, patterns, textures" or similar phrase, Architect will direct color, pattern, density, or texture that is not necessarily available from the manufacturer's standard product line.

## 2.2 PRODUCT SUBSTITUTIONS

- A. Timing: Architect will consider requests for substitution if received within 30 days after the Notice of Award. Requests received after that time may be considered or rejected at discretion of Architect.
- B. 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:
  1. 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.

2. Requested substitution does not require extensive revisions to the Contract Documents.
  3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
  4. Substitution request is fully documented and properly submitted.
  5. Requested substitution will not adversely affect Prime Contractor's Construction Schedule.
  6. Requested substitution has received necessary approvals of authorities having jurisdiction.
  7. Requested substitution is compatible with other portions of the Work.
  8. Requested substitution has been coordinated with other portions of the Work by Prime Contractor.
  9. Requested substitution provides specified warranty.
  10. If requested substitution involves more than one Prime 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 Prime Contractors involved.
  11. The request is directly related to "or an approved substitution" clause or similar language in the Contract Documents.
  12. The equipment or material must fit the space available for it in the building. No item will be considered if alteration of building structure or space is made necessary by a substitution request.
  13. If a substitution of material or any equipment item is accepted, the Prime Contractor is required to make all necessary corrections to details, clearances, etc., add to, furnish and install all additional materials or items required by the substitution, as determined by the Architect, at no additional cost to the Owner.
- C. In making request for substitution, Prime Contractor represents:
1. That the Prime Contractor has personally investigated the proposed substitute product and determined that it is equivalent to or superior in all respects to the specified product;
  2. That the Contractor will provide the same warranty for the substitution that is required for the specified product;
  3. Certifies that the substitution will not result in a cost disadvantage to the Owner; that all cost data presented is complete and that the Prime Contractor waives all claims for additional costs related to the substitution which subsequently may become apparent; and
  4. Will coordinate the installation of the substitution, if accepted, making such changes as may be required to make the Work complete in all respects.
  5. Prime Contractor requesting substitution shall bear additional costs to all parties due to substitution including Architect redesigns and costs; associated but under separate contract.

- D. Prime Contractor's submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

## 2.3 COMPARABLE PRODUCTS

- A. Conditions: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
  1. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
  2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  3. Evidence that proposed product provides specified warranty.
  4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
  5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

## SECTION 017300 - EXECUTION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
  - 1. Construction layout.
  - 2. Field engineering and surveying.
  - 3. General installation of products.
  - 4. Coordination of Owner-installed products.
  - 5. Progress cleaning and protection during construction.
  - 6. Starting and adjusting.
  - 7. Protection of installed construction.
  - 8. Correction of the Work.

#### 1.3 SUBMITTALS

- A. Qualification Data: For land surveyor.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

#### 1.4 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
  - 1. Before construction, verify the location and points of connection of utility services.
  
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
  - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
  - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
  
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
    - a. Description of the Work.
    - b. List of detrimental conditions, including substrates.
    - c. List of unacceptable installation tolerances.
    - d. Recommended corrections.
  - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  - 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  - 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  - 5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents. Submit requests for information (RFI) on standard form included in this Project Manual.

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect and Construction Site Coordinator promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
  - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  - 2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  - 3. Inform installers of lines and levels to which they must comply.
  - 4. Check the location, level and plumb, of every major element as the Work progresses.
  - 5. Notify Architect and Owner's Representative when deviations from required lines and levels exceed allowable tolerances.
  - 6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.

- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect and Owner's Representative.

### 3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. 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 and Owner's Representative. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect and Owner's Representative before proceeding.
  - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. 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.
- D. 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.

### 3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
  - 4. Maintain minimum headroom clearance of 8 feet Insert dimension in spaces without a suspended ceiling.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.
  - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.6 PROGRESS CLEANING AND PROTECTION DURING CONSTRUCTION

- A. General: Each Subcontractor shall clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly among Subcontractor's employees. This includes sweeping floors clean as may be deemed necessary by Owner's Representative, . Dispose of material lawfully.
  1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F.
  3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Each Prime Contractor shall 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 and when directed by Owner's Representative.
- D. Installed Work: Prime Contractor shall keep all installed work clean for subcontractors retained who are no longer required to be present on site. 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.
  1. Provide cleaning products compliant with VOC requirements.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.
- K. Each day Prime Contractor shall affect the following:
  - 1. Areas of intense activity, such as cutting and sawing must be swept clean and re-organized at the end of each day.
  - 2. Areas of moderate activity such as installation of plumbing, ductwork, electrical work must be returned to good order at the end of each day.
  - 3. Debris below scaffolds (and shoring/reshoring) must at all times, be kept sufficiently consolidated to keep walkways free of tripping hazards. These work areas must also be swept clean immediately upon removal of scaffolds.
  - 4. All swept up debris, waste materials, and packing must be removed and placed in the dumpster by noon of the following workday.
  - 5. All stored materials must be kept in good order.
  - 6. As portions of the work are completed, all used and excess materials must be removed promptly.
  - 7. Daily clean-up and good housekeeping is the responsibility of each Prime Contractor individually and will be monitored by the Owner's Representative.
  - 8. Prime Contractors and their retained subcontractors, Installers or manufacturers shall promptly comply with requests of Owner's Representative, to organize scattered materials.
- L. Vacuum clean interior building areas when ready to receive finish painting, and continue vacuum cleaning on an as-needed basis or as directed by Owner's Representative, until building is ready for Substantial Completion or occupancy.
- M. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.

### 3.7 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 01 Section "Quality Requirements."

### 3.8 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.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.
- C. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.
- D. Clean and provide maintenance on completed construction as frequently as necessary or as requested by Construction Site Coordinator, through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.
- E. Limiting Exposure: Each Prime Contractor to supervise construction operations to assure that no part of the construction, complete or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
  - 1. Excessive static or dynamic loading.
  - 2. Excessive internal or external pressures.
  - 3. Excessive high or low temperatures.
  - 4. Thermal shock.
  - 5. Excessive high or low humidity.
  - 6. Air contamination or pollution.
  - 7. Ice or water.
  - 8. Solvents or chemicals.
  - 9. Light.
  - 10. Radiation.
  - 11. Puncture.
  - 12. Abrasion.
  - 13. Heavy traffic.
  - 14. Soiling, staining and corrosion.

15. Bacteria.
  16. Rodent and insect infestation.
  17. Combustion.
  18. Electrical current.
  19. High-speed operation.
  20. Improper lubrication.
  21. Unusual wear or misuse.
  22. Contact between incompatible materials.
  23. Destructive testing.
  24. Misalignment.
  25. Excessive weathering.
  26. Unprotected storage.
  27. Improper shipping and handling.
  28. Vandalism or theft.
- F. Each Prime Contractor for its Work shall provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- G. Comply with manufacturer's written instructions for temperature and relative humidity.

### 3.9 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 Section "Cutting and Patching."
1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300



## SECTION 017310 - CUTTING AND PATCHING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
  - 1. Execute cutting (including excavating), fitting or patching or work, required to:
    - a. Make several parts fit properly.
    - b. Uncover work to provide for installation of ill-timed work.
    - c. Remove and correct defective work.
    - d. Remove and correct work not confirming to requirements of Contract Documents.
    - e. Remove samples of installed work as specified for testing.
    - f. Install specified work in existing construction.
    - g. Remove existing construction.
    - h. Provide equipment, labor and incidentals necessary for cutting and patching as required for the installation of work in existing walls, floors and ceilings. Patching must match adjacent material and finish.
    - i. Provide lintels, capable of supporting wall construction above openings that are cut in existing walls, unless noted elsewhere.
    - j. Removal of materials to be reused and relocated as indicated.
  - 2. Coordination
    - a. Coordinate the installation of Work with other Contractors to minimize cutting and patching in new and existing construction.
  - 3. In addition to contract requirements, upon written instructions of the Owners Representative:
    - a. Uncover work to provide for Owners Representative's and Architect's observation of covered work.
    - b. Remove samples of installed materials for testing.
    - c. Remove work to provide for alterations of existing work.
  - 4. Do not endanger work by cutting or altering work or any part of it.
  - 5. Do not cut or alter work of another Contractor without written consent of the Contractor and Owners Representative.

### 1.3 DEFINITIONS

- A. Cutting and patching covers adjustments to, and necessary reworking of, elements of construction in both new and existing work. The following definitions for cutting and patching apply.
  - 1. Cutting: Physical modification of construction work, both new and existing, or removal of existing or installed materials, including excavating and earthwork.
  - 2. Patching: Restoration or replacement and installation of construction material, both new and existing, including finishing, patching, excavations and compaction of backfilling, as to match surrounding surfaces.

### 1.4 INFORMATIONAL SUBMITTALS

- A. Cutting and Patching Plan: Submit plan describing procedures at least 10 days prior to the time cutting and patching will be performed. Include the following information:
  - 1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
  - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.
  - 3. Products: List products to be used for patching and firms or entities that will perform patching work.
  - 4. Dates: Indicate when cutting and patching will be performed.
  - 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
    - a. Include description of provisions for temporary services and systems during interruption of permanent services and systems.

### 1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio. Verify cutting of structural elements in question with Owners Representative.
  - 1. Prior to cutting, which affects structural safety of project, submit written notice, to Owners Representative, requesting consent to proceed with cutting, including:
    - a. Identification of Contract.
    - b. Types of structural elements:

- 1) Bearing and retaining walls.
- 2) Structural concrete.
- 3) Structural steel.
- 4) Lintels.
- 5) Structural decking.
- 6) Stair systems.
- 7) Miscellaneous structural metals.
- 8) Exterior curtain-wall and storefront construction.
- 9) Equipment supports.
- 10) Piping, ductwork, vessels and equipment.
- c. Description of affected work.
- d. Necessity for cutting.
- e. Affect on other work, on structural integrity of project.
- f. Description of proposed work. Designate:
  - 1) Scope of cutting and patching.
  - 2) Contractor and trades to execute work.
  - 3) Shoring design & procedure.
  - 4) Products proposed to be used.
  - 5) Extent of refinishing.
- g. Alternatives to cutting and patching.
- h. Designation of party responsible for cost of cutting and patching.
2. Should conditions of work, or schedule, indicate change of materials or methods, submit written recommendation to the Owners Representative, including:
  - a. Conditions indicating change.
  - b. Recommendations for alternative materials or methods.
  - c. Submittals as required for substitutions.
  - d. Work with visual requirements exposed on the exterior or in interior spaces that would in the architect's opinion reduce the building's aesthetic qualities and requiring prior approval include:
    - 1) Processed concrete finishes.
    - 2) Stonework and stone masonry.
    - 3) Ornamental metals.
    - 4) Preformed metal panels.
    - 5) Firestopping.
    - 6) Window wall systems.
    - 7) Acoustical ceilings.
    - 8) Terrazzo.
    - 9) Finished wood flooring.
    - 10) Fluid applied flooring.
    - 11) Carpeting.
    - 12) Aggregate wall coating.
    - 13) Wall coverings.

- 14) HVAC enclosures, cabinets, or covers.
  - 15) Roofing.
3. Submit written notice to Owners Representative designating time work will be uncovered, to allow for observation by Owners Representative or Architect.
- B. Operational Elements: Do not cut and/or 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 of the following:
1. Primary operational systems and equipment.
  2. Air or smoke barriers.
  3. Water, moisture or vapor barriers.
  4. Membranes and flashings.
  5. Fire-protection systems.
  6. Noise and vibration control systems.
  7. Control systems.
  8. Communication systems.
  9. Conveying systems.
  10. Electrical wiring systems.
- C. 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:
1. List below is an example only. Revise to suit Project. With advice of counsel, delete below if Architect's review is not required. If list is deleted, delete option in "Other Construction Elements" Subparagraph above.
  2. Water, moisture, or vapor barriers.
  3. Membranes and flashings.
  4. Exterior curtain-wall construction.
  5. Sprayed fire-resistive material.
  6. Equipment supports.
  7. Piping, ductwork, vessels, and equipment.
  8. Noise- and vibration-control elements and systems.
- D. Visual Requirements: Do not cut and/or patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and/or patch construction exposed on the exterior or in occupied spaces 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. Contractor assumes all cost to re-

move and replace construction not acceptable to the Owner or Architect due to poor quality of cut and/or patch work.

- E. 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.

## 1.6 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.
- B. Roof Warranties: Identify locations where cutting and patching of existing roof systems to remain is required and review during roof pre-construction meeting. Make arrangements so that all work performed fully complies with existing warranties in place and at the completion of work, warranties remain in effect and unaltered.

## 1.7 PAYMENT FOR COSTS

- A. Any costs associated with ill-timed work, defective work, rejected work, or work not conforming to the Contract Documents, shall be borne by the Contractor creating such work, including all costs for additional services provided by the Architect.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections of these Specifications.
- B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible as approved by Architect.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed, including elements subject to movement or damage during removal of adjacent materials.
- B. After uncovering Work, visually inspect conditions affecting installation of new products.
- C. Notify Owners Representative of any existing conditions which may be suspicious of containing hazardous materials.

### 3.2 PREPARATION

- A. Temporary Support: Provide shoring, bracing and temporary support of Work to be cut as required to maintain structural integrity of Project.
- B. Protection: Protect and maintain protection, at all times, existing construction, Owner equipment, supplies, furniture and surrounding areas, during cutting and patching to prevent damage, dust migration, contamination, and excessive cleaning. Provide protection from adverse weather conditions, at all times, for portions of Project that might be exposed during cutting and patching operations. Protection must be approved and signed off by Owners Representative prior to commencement of any demolitions, cutting and/or demolition patching. All cost associated with repairing and/or replacing and/or cleaning materials/installations/Owner equipment/school supplies due to poor temporary conditions shall be borne by the Contractor.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

### 3.3 PERFORMANCE

- A. General: Remove and store in Contractor provided protection/storage facility, material that is to be reused and relocated.
  - 1. Cut existing 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. Cutting: Contractor shall cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction.
  - 1. It is the responsibility of the contractor providing the cutting of existing and new construction to coordinate each location with structural framing and load config-

- urations. Avoid conflicts with load-bearing features of structural frames and load bearing zones and coordinate offsets of penetrations from these areas.
2. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use or exposed to weather.
  3. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  4. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill; use water to limit dust exposure.
  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.
- C. Patching: Contractor shall patch existing construction and finishes damaged or left incomplete due to cutting and removals. 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 possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
1. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
    - a. Continuous Surfaces: To nearest intersection.
    - b. Assembly: Entire refinishing.
  2. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor, wall and ceiling surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing 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, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Extend the area of refinishing to corners, control or expansion joints or full height or length offsets in construction as conditions require and as approved by the Owners Representative and Architect. Provide additional coats until patch blends with adjacent surfaces.
    - b. Fill and patch openings and holes in existing construction when bolts, piping, ducts, conduit and other penetrating items are removed.
    - c. Contractor shall cap, or otherwise terminate, existing utility services to remove equipment on all utilities that are to remain active.

- d. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weather tight condition.
- e. Record any and all existing conditions encountered during cut and patch.
- f. Immediately notify Owners Representative, and respective Prime Contract, of conditions, whether known or unknown, damaged during cut and patch.

END OF SECTION 017310

## SECTION 017423 - FINAL CLEANING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for final cleaning, including, but not limited to, the following:
  - 1. Final cleaning of facility prior to placement of furniture and occupancy by Owner.
- B. Related Section include the following:
  - 1. Division 1 Section "Summary of Work" for temporary facilities and controls by other Prime Contracts.
  - 2. Division 2 through 12 for execution of cleaning procedures as recommended by manufacturer in writing.
- C. Products to be used shall be subject to approval by the Owner.

#### 1.3 SUBMITTALS

- A. Product Data: For cleaning agents of each finish as recommended by manufacturer.
- B. Qualification Data: For cleaning company specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent referral from previous Owner's.
- C. Products must be approved by the Owner.

#### 1.4 QUALITY ASSURANCE

- A. Cleaning Company Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a 5-year record of successful in-service performance, as well as sufficient production capacity to produce required results.
- B. Precleaning Conference: Before start of cleaning, conduct conference at Project site. Notify participants at least 10 working days before conference.
  - 1. Meet with Owner; Architect and personnel from cleaning company who will be performing the Work.
  - 2. Review methods, products and procedures related to cleaning surfaces including manufacturer's written instructions.
  - 3. Review Owner's limitations of occupancy for scheduling cleaning procedures to accommodate Owner requirements.
  - 4. Owner's Representative shall document proceedings, including corrective measures or actions required, and furnish copy of record to each participant within 3 days of conference.

## 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 furnished surfaces. All products shall be subject to approval by the Owner.

## PART 3 - EXECUTION

### 3.1 FINAL CLEANING

- A. General: Provide 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.
  - 1. Complete the following cleaning operations in accordance with the Construction Schedule for each phase of the 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. Avoid disturbing natural weathering or exterior surfaces.
- b. Sweep paved areas broom clean and power wash. Remove petrochemical spills, stains, and other foreign deposits.
  - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
  - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
  - e. Clean exposed interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Surfaces are to include but not limited to countertops, gypsum and CMU walls and cabinetry.
  - f. Sweep concrete floors broom clean and mop in unoccupied spaces.
  - g. Polish all finish exposed metals removing fingerprints and tarnish.
  - h. Wipe all stair railings clean of dust and fingerprints.
  - i. Wipe clean all door surfaces including top of door and top of doorframe.
  - j. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
  - k. Vacuum all hard floor surfaces, stairs and ramps prior to damp mopping, washing or waxing per manufacturers written procedures.
  - l. Damp mop all hard floor surfaces.
  - m. Clean all transparent materials including, but not limited to, the following:
    - 1) Mirrors surfaces of toilet rooms and other locations if any.
    - 2) Glass in all doors, sidelites, transoms and all windows. Remove glazing compounds and other noticeable, vision-obscuring materials.
    - 3) Display cases with glass doors.
    - 4) Polish mirrors and glass, taking care not to scratch surfaces.
  - n. Remove inside and outside labels that are not permanent, unless otherwise indicated.
    - 1) Do not remove "Rescue Window" labels, testing laboratory labels indicating fire ratings and manufacturer's labels identifying model numbers.
  - o. Toilet, Shower and Locker Rooms: Clean and disinfect all plumbing fixtures; lavatories, water closets, drinking fountains, shower stalls, dressing areas, and toilet room accessories.

- 1) Coordinate with Owner paper products for stocking toilet room accessories.
  - 2) Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - 3) Wipe clean all wall and floor surfaces.
  - 4) Wipe clean all toilet partitions, shower stalls, lockers, benches and vanities.
  - p. Architectural and Manufactured Cabinetry: Vacuum interior of all overhead and base cabinetry including drawer and shelves of cabinetry interior.
  - q. Cafeteria Kitchen: Clean and disinfect all surfaces of kitchen equipment and residential appliances. Clean of dust, fingerprints, and open all equipment to remove any packing materials not removed during installation.
  - r. Wipe all dust clean from individual blades of window blinds.
  - s. Wipe surfaces of mechanical and electrical equipment, elevator equipment and similar equipment. Remove excess lubrication, paint and mortar droppings and other foreign substances.
  - t. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - u. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
    - 1) Clean HVAC system in compliance with NADCA Standard 1992-01. Provide written report on completion of cleaning.
  - v. Elevator: Wipe cab interior equipment, walls and similar surfaces. Remove excess lubrication, paint and other foreign substances. Clean floor surface per manufacturer written recommendations.
  - w. Classrooms: Wipe clean all chalkboard surfaces, display boards, desk, chairs, computer equipment including monitor screens, clocks and remaining room surfaces as indicated.
  - x. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
    - 1) Broken globes due to cleaning services will be responsibility of cleaning company for replacement.
  - y. Leave Project clean and ready for Owner occupancy.
2. Floor waxing will be conducted by the Contractor prior to Owner furniture install in accordance with the Milestone Schedule.
- C. Final Cleaning completion will be reviewed and signed off on by the Owner's Representative.

- D. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 017423



## SECTION 017700 - CLOSEOUT PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Inspection procedures.
  - 2. Warranties.
- C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

#### 1.3 DEFINITIONS

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

#### 1.4 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following:
  - 1. In Application for Payment that coincides with, or first follows, the date of Substantial Completion is claimed, show 100 percent completion got portion of Work claimed on substantially complete.
    - a. Include supporting documentation for completion as indicated and a statement showing accounting of changes to the Contract Sum.

- b. If 100 percent completion cannot be shown, include a list of the value of incomplete Work.
  - c. Application shall reflect Certificates of Partial Completion issued previously for Owner occupancy of designated portions of Work.
2. Administrative actions and submittals that shall precede or coincide with this application include, but are not limited to, the following:
- a. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  - b. Advise Owner of pending insurance changeover requirements.
  - c. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - d. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - e. Prepare and submit Project Record Documents, operation and maintenance manuals, Final Completion construction photographs, damage or settlement surveys, property surveys, and similar final record information.
  - f. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
  - g. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  - h. Complete startup testing of systems.
  - i. Submit test/adjust/balance records.
  - j. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  - k. Advise Owner of changeover in heat and other utilities.
  - l. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
  - m. Complete final cleaning requirements, including touchup painting.
  - n. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
  - o. Maintenance instructions.
  - p. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents to be turned over to Owner.
  - q. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - r. Prepare and submit Project Record Documents, operation and maintenance manuals.
  - s. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.

- t. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
    - u. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
    - v. Remove surplus materials rubbish and similar elements as directed Owner's Representative.
  - B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Prime Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Prime 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. Architect will prepare and issue a Certificate of Substantial Completion, AIA G704, complete with signatures of Owner and Prime Contractor.
    - 1. Reinspection: When Architect is required to perform second and additional inspections because of failure of Work to comply with certifications of Prime Contractor, Owner will compensate Architect for additional services and deduct amount paid from Final Payment to Prime Contractor.
    - 2. Results of completed inspection will form the basis of requirements for Final Completion.
  - C. Should Architect consider that Work is finally complete in accordance with the requirements of the Contract Documents, he shall request Prime Contractor to make Project Closeout submittals.
  - D. Should Architect consider that Work is not finally complete:
    - 1. Punchlist: Architect shall notify Prime Contractor, in writing, stating reasons.
    - 2. Prime Contractor shall take immediate steps to remedy the stated deficiencies and send second written notice to Architect certifying that Work is complete.
    - 3. Architect will reinspect Work per "Reinspection" paragraph.
- 1.5 FINAL COMPLETION
- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
    - 1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and complete operations where required according to Division 01 Section "Payment Procedures."
    - 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect.

The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and the punch list has been endorsed and dated by the Prime Contractor.

3. Submit pest-control final inspection report and warranty.
  4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training videotapes.
  5. Specified warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents in required formats.
  6. Insurance certificates for products and completed operation in effect for 12 months from date of final Application for Payment.
- B. Request: Submit in writing to Architect listing incomplete items of preliminary procedures.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- D. Evidence of Payments and Release of Liens: Submittals shall be duly executed before delivery to Owner's Representative,
1. Contractor's Affidavit of Payment of Debts and Claims: AIA G706.
  2. Contractor's Affidavit of Release of Liens: AIA G706A, with the following:
    - a. Consent of Surety to Final Payment: AIA G707.
    - b. Prime Contractor's release of waiver of liens.
    - c. Separate releases of waivers of liens for subcontractors, suppliers, and others with lien rights against property of Owner, together with list of these parties.
- E. Final Adjustment of Accounts: Architect will prepare final Change Order, reflecting approved adjustments to Contract Sum not previously made by Change Orders.
1. Submit final statement of accounting to Architect.
  2. Statement shall reflect all adjustments.
    - a. Original Contract Sum.
    - b. Additional and deductions resulting from:
      - 1) Previous Change Orders.
      - 2) Contingency Allowances: Credit unused remaining balance back to Owner by Change Order.
        - a) Do not include overhead and profit credit included in Base Bid as part of Change Order adjustment.
      - 3) Other Adjustments.
      - 4) Deductions for Uncorrected Work.
      - 5) Deductions for Reinspection Payments.
    - c. Total Contract Sum, as adjusted.

- d. Previous Payments.
  - e. Sum remaining due.
- F. Final Application for Payment: Owner’s Representative shall notify Architect when all required closeout submittals are received and acceptable for Final Payment.
- G. Final Certification for Payment: Architect will issue final Certificate in accordance with provisions of General and Supplementary Conditions.
- H. Miscellaneous Record Submittals: 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.
- I. Provide copies of each warranty to include in operation and maintenance manuals.

#### 1.6 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit one copy of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
- 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
  - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
  - 3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Page number.

#### 1.7 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- 1. Submit written warranties to the Architect prior to the date certified for Substantial Completion. If the Architect Certificate of Substantial Completion designates a commencement date for warranties other than the date of

- Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.
- a. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Prime Contractor during the construction period, submit properly executed warranties to the Architect within 15 days of completion of that designated portion of the Work.
  2. Prepare a written document utilizing the appropriate form, ready for execution by the Prime Contractor, or the Contractor and subcontractor, supplier or manufacturer.
  3. Form of Submittal: At Final Completion compile two copies of each required warranty and bond properly executed by the Prime Contractor, or by the Prime Contractor's, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
  4. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2 by 11 inch paper.
    - a. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a type description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
    - b. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES", the Project title or name, and the name of the Contractor.
  5. When operating and maintenance manuals are required for warranted construction, provide warranty, for inclusion in that required manual.
- B. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
- C. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- D. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Prime Contractor providing Work is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

- E. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, right and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
  - 1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- F. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

## 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 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
  - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
  - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.

- a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
4. Replace 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 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This 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. Maintenance manuals for the care and maintenance of products, materials, and finishes and systems and equipment.

#### 1.3 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.

#### 1.4 SUBMITTALS

- A. Initial Submittal: Submit 2 draft copies of each manual at least 15 days before requesting inspection for Substantial Completion. Include a complete operation and maintenance directory. Architect will return one copy of draft and mark whether general scope and content of manual are acceptable.
- B. Final Submittal: Submit four of each manual in final form at least 15 days before final inspection. Architect will return copy with comments within 15 days after final inspection.

## 1.5 COORDINATION

- A. Where operation and maintenance documentation includes information on installations by more than one factory-authorized service representative, assemble and coordinate information furnished by representatives and prepare manuals.

## PART 2 - PRODUCTS

### 2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: 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 MANUALS, GENERAL

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
  - 1. Title page.
  - 2. Table of contents.
  - 3. Manual contents.
- B. Title Page: Enclose title page in transparent plastic sleeve. 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, address, and telephone number of Contractor.
  6. Name and address of Architect.
  7. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
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.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
1. Binders: Heavy-duty, 3-ring, vinyl-covered, loose-leaf 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. Indicate volume number for multiple-volume sets.
  2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section. 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 diskettes 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. Gas leak.
  - 4. Water leak.
  - 5. Power failure.
  - 6. Water outage.
  - 7. System, subsystem, or equipment failure.
  - 8. Chemical release or spill.
  
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
  
- D. Emergency Procedures: Include the following, as applicable:
  - 1. Instructions on stopping.
  - 2. Shutdown instructions for each type of emergency.
  - 3. Operating instructions for conditions outside normal operating limits.
  - 4. Required sequences for electric or electronic systems.
  - 5. Special operating instructions and procedures.

## 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.
  - 2. Performance and design criteria if Contractor is delegated design responsibility.
  - 3. Operating standards.
  - 4. Operating procedures.
  - 5. Operating logs.

6. Piped system diagrams.
  7. Precautions against improper use.
  8. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
1. Product name and model number.
  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 MANUAL

- 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.
- 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 MANUAL

- 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.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
1. Standard printed 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 videotape, 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 Division 01 Section "Project Record Documents."
  
- G. Comply with Division 01 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

## SECTION 017836 - WARRANTIES

### PART 1 – GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturers' standard warranties on products and special warranties.
  - 1. Refer to the General Conditions for terms of the Contractor's special warranty of workmanship and materials.
  - 2. General closeout requirements are included in Section "Project Closeout."
  - 3. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.
- C. Multiple Prime Contracts: Each Prime Contract is responsible for warranties related to provided Work
  - 1. Specific requirements for warranties for the Work and products and installation that are specified to be warranted are included in the individual Sections of Divisions 02 thru 33.

#### 1.3 DEFINITIONS

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

- B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

#### 1.4 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding; reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Prime Contractor providing Work is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, right and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
  - 1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

#### 1.5 SUBMITTALS

- A. Submit written warranties to the Architect prior to the date certified for Substantial Completion. If the Architect Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.

1. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Prime Contractor during the construction period, submit properly executed warranties to the Architect within 15 days of completion of that designated portion of the Work.
- B. Prepare a written document utilizing the appropriate form, ready for execution by the Prime Contractor, or the Contractor and subcontractor, supplier or manufacturer.
- C. Form of Submittal: At Final Completion compile two copies of each required warranty and bond properly executed by the Prime Contractor, or by the Prime Contractor's, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- D. Provide warranties via project information exchange website, and/or if requested, bind warranties and bonds in heavy-duty, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2 by 11-inch paper.
  1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a type description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
  2. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES", the Project title or name, and the name of the Contractor.
- E. When operating and maintenance manuals are required for warranted construction, provide warranty, for inclusion in that required manual.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 017836



## SECTION 017839 - PROJECT RECORD DOCUMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
  - 1. Record Drawings.
  - 2. Record Specifications.
  - 3. Record Product Data.

#### 1.3 SUBMITTALS

- A. Record Drawings: Comply with the following:
  - 1. Number of Copies: Administer **one** set of marked-up Record Drawings and digital scan of marked-up record drawings on disk.
- B. Record Specifications: Submit two copies of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit two copies of each Product Data submittal.
  - 1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

### PART 2 - PRODUCTS

#### 2.1 RECORD DRAWINGS

- A. General: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

- B. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
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 prepare the marked-up Record Prints.
  2. Prior to submitting final Application for Payment, Prime Contractor shall confirm that all changes and deviations have been recorded on the drawings and indicate such by adding signature and date to each drawing.
    - a. Include with submission revised shop drawings which reflect any change or deviation in the installed Work.
    - b. Deliver to Architect, a transmittal indicating that complete Record Drawings and record shop drawings have been administered prior to final Application for Payment.
  3. 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 prepare the marked-up Record Prints.
    - a. Give particular attention to information on concealed elements that cannot be readily identified and recorded later.
    - b. Accurately record information in an understandable drawing technique.
    - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
    - d. Mark Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. Where Shop Drawings are marked, show cross-reference on Contract Drawings.
    - e. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - f. Accurately record information in an understandable drawing technique.
    - g. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
  4. 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.
  - o. Label each document "Project Record" in two-inch printed letters.
- 5. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
  - 6. Mark record sets with multiple colors to distinguish between changes for different categories of the Work at same location.
  - 7. Mark important additional information that was either shown schematically or omitted from original Drawings.
  - 8. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
  - 9. Mark important additional information that was either shown schematically or omitted from original Drawings.
  - 10. Note Construction Change Directive numbers, Change Order numbers, alternate numbers, and similar identification where applicable.
  - 11. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets.

## 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.

## 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, Record Specifications, and Record Drawings where applicable.

## 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.

## 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 modifications to Project Record Documents as they occur; do not wait until the end of Project.
  1. Update Record Documents no less than once per month, as a requirement of the Contract. Owner's Representative shall delay review of Applications for Payment (pencil copies) until the appropriate information is documented.
- B. Maintenance of Record Documents and Samples: Stored Record Documents and Samples shall be maintained in the Owner's Representative 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. Access shall be provided to Project Record Documents for Prime Contractor's reference during normal working hours.

END OF SECTION 017839



## SECTION 017900 - DEMONSTRATION AND TRAINING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This 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. Demonstration and training DVD.

#### 1.3 SUBMITTALS

- A. Instruction Program: Submit four copies of outline of instructional program for demonstration and training, including 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. At completion of training, submit four complete training manual(s) for Owner's use.
- B. Qualification Data: For instructor.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.
- D. Demonstration and Training Videotapes: Submit four copies within seven days of end of each training module.
  - 1. Identification: On each copy, provide an applied label with the following information:
    - a. Name of Project.
    - b. Name of Architect.
    - c. Name of Contractor.
    - d. Date videotape was recorded.

- e. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
2. Transcript: Prepared on 8-1/2-by-11-inch paper, punched and bound in heavy-duty, 3-ring, vinyl-covered binders. Mark appropriate identification on front and spine of each binder. Include a cover sheet with same label information as the corresponding videotape. Include name of Project and date of videotape on each page.

#### 1.4 QUALITY ASSURANCE

- A. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Division 01 Section "Quality Requirements," experienced in operation and maintenance procedures and training.
- B. Preinstruction Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "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.
- 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 equipment not part of a system, as required by individual Specification Sections, and as follows:
1. Equipment, including food service equipment and residential appliances.
  2. Fire-protection systems, including fire alarm and fire-extinguishing systems.
  3. Intrusion detection systems.
  4. Conveying systems, including elevators and wheelchair lifts.
  5. Heat generation, including boilers, feedwater equipment, pumps and water distribution piping.
  6. Refrigeration systems, including condensers, pumps and distribution piping.
  7. HVAC systems, including air-handling equipment, air distribution systems and terminal equipment and devices.
  8. HVAC instrumentation and controls.
  9. Electrical service and distribution, including transformers, switchboards, panelboards and motor controls.
  10. Packaged engine generators, including transfer switches.
  11. Lighting equipment and controls.
  12. Communication systems, including intercommunication, surveillance, clocks and programming, voice and data and television equipment.
- 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:
1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
    - a. System, subsystem, and equipment descriptions.
    - b. Performance and design criteria if Contractor is delegated design responsibility.
    - c. Operating standards.
    - d. Regulatory requirements.
    - e. Equipment function.
    - f. Operating characteristics.
    - g. Limiting conditions.
    - h. Performance curves.
  2. Documentation: Review the following items in detail:
    - a. Emergency manuals.
    - b. Operations manuals.
    - c. Maintenance manuals.

- d. Project Record Documents.
- e. Identification systems.
- f. Warranties and bonds.
- g. Maintenance service agreements and similar continuing commitments.
3. Emergencies: Include the following, as applicable:
  - a. Instructions on meaning of warnings, trouble indications, and error messages.
  - b. Instructions on stopping.
  - c. Shutdown instructions for each type of emergency.
  - d. Operating instructions for conditions outside of normal operating limits.
  - e. Sequences for electric or electronic systems.
  - f. Special operating instructions and procedures.
4. Operations: Include the following, as applicable:
  - a. Startup procedures.
  - b. Equipment or system break-in procedures.
  - c. Routine and normal operating instructions.
  - d. Regulation and control procedures.
  - e. Control sequences.
  - f. Safety procedures.
  - g. Instructions on stopping.
  - h. Normal shutdown instructions.
  - i. Operating procedures for emergencies.
  - j. Operating procedures for system, subsystem, or equipment failure.
  - k. Seasonal and weekend operating instructions.
  - l. Required sequences for electric or electronic systems.
  - m. Special operating instructions and procedures.
5. Adjustments: Include the following:
  - a. Alignments.
  - b. Checking adjustments.
  - c. Noise and vibration adjustments.
  - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
  - a. Diagnostic instructions.
  - b. Test and inspection procedures.
7. Maintenance: Include the following:
  - a. Inspection procedures.
  - b. Types of cleaning agents to be used and methods of cleaning.
  - c. List of cleaning agents and methods of cleaning detrimental to product.
  - d. Procedures for routine cleaning
  - e. Procedures for preventive maintenance.
  - f. Procedures for routine maintenance.
  - g. Instruction on use of special tools.
8. Repairs: Include the following:
  - a. Diagnosis instructions.

- b. Repair instructions.
- c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
- d. Instructions for identifying parts and components.
- e. Review of spare parts needed for operation and maintenance.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a combined training manual.
- 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. Owner will furnish Contractor with names and positions of participants.
- 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 Site Coordinator, with at least seven days' advance notice.
- D. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of a written performance-based test.
- 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 VIDEOTAPES

- A. Videotape Format: Provide high-quality VHS color videotape in full-size cassettes.

- B. Recording: Mount camera on tripod before starting recording, unless otherwise necessary to show area of demonstration and training. Display continuous running time.
- C. Transcript: Provide a typewritten transcript of the narration. Display images and running time captured from videotape opposite the corresponding narration segment.

END OF SECTION 01 79 00

## SECTION 019113 - GENERAL COMMISSIONING REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes general requirements that apply to implementation of commissioning without regard to specific systems, assemblies, or components.
- B. Commissioning is a systematic process of verifying that building systems perform interactively according with the owner's operational needs, the design documents, manufacturer's recommendations, good engineering and workmanship practices.
- C. The commissioning process shall encompass and coordinate the functions of system documentation, equipment startup, control system calibration, testing and balancing, performance testing and training.
- D. Commissioning during the construction phase is intended to achieve the following specific objectives according to the Contract Documents:
  - 1. Verify that applicable equipment and systems are installed according to the contract documents, manufacturer's recommendations and to industry accepted minimum standards and that they receive adequate operational checkout by installing contractors.
  - 2. Verify and document proper performance of equipment and systems.
  - 3. Verify that O&M documentation provided for the project is complete, accurate and represents the actual installed equipment.
  - 4. Verify that the Owner's operating personnel are adequately trained.

#### 1.3 ABBREVIATIONS:

- A. The following are common abbreviations used in the Specifications.
  - 1. A/E: Architect/Engineer.
  - 2. CTR: Prime Contractor.
  - 3. Cx: Commissioning .
  - 4. CxA: Commissioning Authority .

5. Cx Plan: Commissioning Plan Document.
6. CM: Construction Manager.
7. EC: Electrical Contractor.
8. FT: Functional Performance Test.
9. MC: Mechanical Contractor.
10. PC: Plumbing Contractor.
11. PFC: Pre-Functional Check List
12. PFI: Pre-Functional Inspection.
13. TAB: Test and Balance Contractor.

#### 1.4 DEFINITIONS

- A. Acceptance Phase: Phase of construction after startup and initial checkout when functional performance tests, O&M documentation review and training occurs.
- B. Acceptance Criteria: The criteria established by the Owner and design team which defines the specified requirements that a component or system must meet under all ranges of actual loads. The CxA's prefunctional inspections and functional testing determines if the acceptance criteria have been met.
- C. Approval: Acceptance that a piece of equipment or system has been properly installed and is functioning in the tested modes according to the Contract Documents.
- D. Architect/Engineer (A/E): The prime consultant (architect) and subconsultants who comprise the design team, generally the HVAC mechanical designer/engineer and the electrical designer/engineer.
- E. Building Systems: The architectural, mechanical and electrical and control systems along with their respective subsystems, equipment and components.
- F. Commissioning: A quality control process that is to verify that specified components and building systems have been installed and properly started up and then functionally tested to verify and document proper operation through all specified modes of operation and conditions, all of which shall perform in conformity with the owner's requirements. In addition, training of operations and maintenance personnel, identified by the owner, is verified, and final project operations and maintenance documents are reviewed for completeness.
- G. Commissioning Authority: The owner's representative that verifies the commissioning process is properly carried out. The Commissioning Authority leads the commissioning process, carries out the detailed planning and implementation of the commissioning process and makes final recommendations to the owner regarding the performance of the commissioned building systems.

- H. Commissioning Plan: An overall plan, which provides the structure, schedule and coordination planning for the commissioning process.
- I. Construction Manager (CM): The contracting and managing authority for the owner over the design and/or construction of the project. The CM is responsible for working with the various parties involved in the project to plan and schedule work, facilitate communication, and coordinate activities between members of the construction and commissioning teams.
- J. Contract Documents: The documents binding on parties involved in the construction of the project (drawings, specifications, change orders, amendments, contracts, Cx Plan, etc.) L. Control System – The central building energy management control system.
- K. Datalogging: Monitoring flows, currents, status, pressures, etc., of equipment using stand along dataloggers separate from the control system.
- L. Deferred Functional Tests: FTs that are performed later, after substantial completion, due to partial occupancy, equipment, season requirements, design or other site conditions that disallow the test from being performed.
- M. Deficiency: A condition in the installation or function of a component, piece of equipment or system that is not in compliance with the Contract Documents (that is, does not perform properly or is not complying with the design intent).
- N. Factory Testing: testing of equipment on site or at the factory by factory personnel with or without an Owner’s representative present. The CTR furnishing the equipment is responsible for providing all testing documentation as per the contact documents.
- O. Functional Performance Test (FT): Test of the dynamic function and operation of equipment and systems using manual (direct observation) or monitoring methods. Functional testing is the dynamic testing of systems (rather than just components) under full operation. Systems are tested under various modes, such as during low cooling or heating loads, high loads, component failures, unoccupied, varying outside air temperatures, fire alarm, power failure, etc. The systems are run through all the control system’s sequences of operation and components are verified to be responding as the sequences state. Traditional air or water test and balancing (TAB) is not functional testing, in the commissioning sense of the word. TAB’s primary work is setting up the system flows and pressures as specified, while functional testing is verifying that which has already been set up. The Commissioning Authority develops the functional test procedures in a sequential written form, coordinates, oversees and documents the actual testing, which is usually performed by the installing contractor or vendor. FTs are performed after prefunctional inspections and startup is complete.

- P. Functional Testing Procedures: The step-by-step process that must be executed to fulfill the functional testing requirements. The test procedures are developed by the CxA.
- Q. Indirect Indicators: Indicators of a response or condition, such as a reading from a controls system screen reporting a damper to be 100% closed.
- R. Contractors (CTR): The company(s) engaged by the Owner to provide and/or install equipment and building systems in accordance with the contract specifications, drawings, manufacturer's recommendations and good engineering and workmanship practices. The term CTR may refer to one or more of the Mechanical Contractor, Electrical Contractor, or Plumbing Contractor responsible for all or part of the contract work for a given system or process.
- S. Manual Test: Using hand-held instruments, immediate control system readouts, or direct observation to verify performance (contrasted to analyzing monitored data taken over time to make the "observation.")
- T. Monitoring: The recording of parameters (flow, current, status, pressure, etc.) of equipment operation using dataloggers or the trending capabilities of control systems.
- U. Non-Compliance: See Deficiency.
- V. Non-Conformance: See Deficiency.
- W. Over-written Value: Writing over a sensor value in the control system to see the response of a system (e.g. changing the outside air temperature value from 50F to 75F to verify economizer operation.) See also Simulated Signal.
- X. Operations and Maintenance (O&M) Manual: The document that records the information pertinent to the operations and maintenance of the components, equipment, subsystems, and systems for the building.
- Y. Pre-functional Inspections (PFI): A list of the items to inspect and elementary component tests to conduct to verify proper installation of equipment. Lists are developed and provided by the CxA and are completed and returned by the appropriate CTRs. Pre-functional inspections are primarily static inspections and procedures to prepare the equipment or system for initial operation. However, some pre-functional inspection items entail simple testing of the functionality of a component, a piece of equipment or system. The word pre-functional refers to before functional testing. Pre-functional inspections augment and are combined with the manufacturer's startup checklists. Even without a commissioning process, installers typically perform some, if not many, of the pre-functional inspection items a Commissioning Authority will recommend. However, few installers document in writing the execution or results of these inspected items.

- Z. Project Manager (PM): The contracting and managing authority for the owner over the design and/or construction of the project. See Construction Manager.
- AA. Sampling: Performing PFIs or functionally testing only a fraction of the total number of identical or near identical pieces of equipment.
- BB. Seasonal Performance Tests: FTs that are deferred until the system(s) will experience conditions closer to their design conditions.
- CC. Simulated Condition: Condition that is created for the purpose of testing the response of a system .
- DD. Simulated Signal: Disconnecting a sensor and using a signal generator to send an amperage, resistance or pressure to the transducer and DDC system to simulate a sensor value.
- EE. Specifications: The construction specifications of the Contract Documents.
- FF. Staged Commissioning: Commissioning that is completed in phases in order to identify issues early and incorporate commissioning throughout the construction process. Generally, this applies to pre-functional inspection and it is phased in the following manner: Stage 1 - substantial installation completion (equipment substantially installed without power or controls complete; Stage 2 – power completed, equipment start-up completed and controls completed (Stage 2 will generally precede functional testing); Stage 3 – final inspection.
- GG. Startup: The initial starting or activating of dynamic equipment, including executing prefunctional inspections. Startup of complex systems is typically performed by an authorized manufacturer’s representative only after the installing contractor has completed all installation work and pre-functional inspections.
- HH. Subs: The sub-contractors to the prime contractors who provide and install building components and systems.
- II. Trending: Monitoring using the building control system.
- JJ. Vendor: Supplier of equipment.
- KK. Warranty Period: Warranty period for specific equipment and components. Warranties are defined in the appropriate sections of these specifications.

## 1.5 COORDINATION

- A. Commissioning Team: The members of the commissioning team consist of the Owner, Design Architect/Engineer (A/E), Commissioning Authority (CxA), Construction Manager (CM), and the Installers (CTR), which includes: the Mechanical Contractor (MC), the Electrical Contractor (EC), the TAB Contractor, the Controls Contractor (CC), any other installers or suppliers of equipment.
- B. Management: The CxA has been hired directly by the Owner. The CxA directs and coordinates the commissioning activities and reports to the Owner and the CM. All members work together to fulfill their contracted responsibilities and meet the objectives of the Contract Documents.
- C. Scheduling: The CxA shall work with the CM and each Contractor according to established protocols to schedule the commissioning activities. The CM will integrate all commissioning activities into the master schedule based on review of the Cx Plan and input from the CxA. All parties will address scheduling problems and make necessary notifications in a timely manner to expedite the commissioning process.

## 1.6 COMPENSATION

- A. If A/E, CM, CxA, or Owner's staff perform additional services or incur additional expenses due to actions of Contractor listed below, compensate Owner for such additional services and expenses.
  - 1. Failure to provide timely notice of commissioning activities schedule changes.
  - 2. Failure to meet acceptance criteria for re-testing of any FPT deficiencies.
- B. Contractor shall compensate Owner for such additional services and expenses at the rate of \$150 per labor hour, plus travel expenses.

## 1.7 COMMISSIONING PROCESS

- A. Commissioning Plan: The Commissioning Plan will be provided by the CxA subsequent to contractor selection and will be binding on the Contractor. The Commissioning Plan is a dynamic document that will provide direction throughout the commissioning process. The plan puts a significant emphasis on defining roles and responsibilities and establishing communication protocols. The plan will be amended as the construction progresses to include updated schedules, pre-functional inspection items and functional testing procedures. The Specifications will take precedence over the Commissioning Plan.

- B. Commissioning Process: The following narrative provides a brief overview of the typical commissioning tasks performed during construction and the general order in which they occur:
1. Commissioning during construction begins with a scoping meeting conducted by the CxA where the commissioning process is reviewed with the commissioning team members.
  2. Additional meetings will be required throughout the construction, scheduled by the CxA with necessary parties attending, to plan, scope, coordinate, schedule future activities and resolve any problems.
  3. Equipment documentation is submitted to the CxA during the normal submittals process and is performed concurrently with the A/E's submittal review process, including detailed start-up procedures.
  4. The CxA works with the MC and the other installers in reviewing and incorporating their startup plans and startup documentation into the pre-functional inspections and functional testing procedures.
  5. In general, the checkout and performance verification proceeds from simple to complex; from component level to equipment to system and intersystem levels with prefunctional inspections being completed before functional testing.
  6. The CTRs, under their own direction, execute and document the initial checkout, equipment start-up and certification the equipment is ready for pre-functional inspections and functional testing. If required by the CxA, this certification will be accomplished in a phased approach under the direction of the CxA. The CxA may witness the start-up of selected equipment.
  7. The prefunctional checklists prepared by the CxA shall be filled out by the MC, EC, PC, and CC and returned to the CM following the procedure agreed upon at the commissioning scoping meeting. Once all checklist items are documented to be complete for a given system the CM shall be notified and shall, in turn, notify the CxA that the system is ready for a final prefunctional inspection.
  8. Prefunctional inspections and documentation shall be completed before proceeding with scheduled functional tests.
  9. The CxA develops specific equipment and system functional performance test procedures. The CTRs review and, if necessary, recommend modifications to the procedures.
  10. The procedures are executed by the CTRs, under the direction of, and documented by the CxA.
  11. Items of non-compliance in material, installation or setup are corrected at the CTRs expense and the system retested.
  12. The CxA records the deficiencies and maintains a log detailing and tracking the correction of deficiencies identified during the Cx process and distributes these reports to the CM, CTRs, Owner and A/E.
  13. The CxA reviews the O&M documentation for completeness.
  14. Commissioning is completed before acceptance.

15. The CxA reviews, pre-approves and observes training provided by the CTRs and the manufacturer's services representatives and verifies that it was completed.
16. The CxA performs a warranty phase review and conducts deferred testing as specified or required.

## 1.8 RESPONSIBILITIES

- A. The responsibilities of various parties in the commissioning process are provided in this section. Further specific responsibilities, when required, of the Mechanical Contractor, TAB Contractor, Controls Contractor and Electrical Contractor are described in their particular contract documents.
- B. All Parties:
  1. Follow the Commissioning Plan.
  2. Attend the commissioning scoping meeting and additional meetings as necessary.
  3. Provide timely responses to requests made by other members of the commissioning team as they related to the requirements of this section.
- C. Architect/Engineer (A/E):
  1. Attend the commissioning scoping meeting and selected commissioning team meetings.
  2. Understand and follow the Commissioning Plan.
  3. Perform normal submittal review, construction observation, as-built drawing preparation, O&M manual preparation, etc., as contracted. On site observation should be completed just prior to system startup.
  - 4.
  5. Coordinate and participate in resolution of design non-conformance and design deficiencies identified during commissioning and during the warranty period.
  6. Participate in the resolution of system installation deficiencies identified during commissioning, as requested by the CxA.
  - 7.
  8. Coordinate resolution of design non-conformance and design deficiencies identified during warranty-period commissioning.
- D. Commissioning Authority (CxA)
  1. The CxA is not responsible for design concept, design criteria, compliance with codes, design or construction scheduling, cost estimating, or construction management. The CxA may assist with problem solving non-conformance or deficiencies, but ultimately that responsibility resides with the A/E and CM according to their respective contracts with the Owner. The primary role of the CxA is to develop and coordinate the execution of the Commissioning Plan, observe and document system performance, and identify deficiencies requiring

correction. Specifically, the goal of commissioning is to ensure that systems are functioning in accordance with the documented design intent and in accordance with the Contract Documents. The CTR and/or vendor's representative will provide all tools or the use of tools to start, check-out and functionally test equipment and systems, except for specified testing with portable data-loggers, which shall be supplied and installed by the CxA.

2. Coordinate and direct the commissioning activities in a logical, sequential and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications and consultations with all necessary parties, frequently updated timelines and schedules and technical expertise.
3. Coordinate the commissioning work and verify that commissioning activities are being incorporated into the master schedule.
4. Revise the Commissioning Plan as necessary.
5. Plan and conduct a commissioning scoping meeting.
6. Request and review additional information required to perform commissioning tasks, including O&M materials, contractor start-up and checkout procedures.
7. Before startup, gather and review the current control sequences and interlocks and work with installers and design engineers until sufficient clarity has been obtained, in writing, to be able to write detailed testing procedures.
8. Review equipment submittals applicable to systems being commissioned for compliance with commissioning needs, concurrent with the A/E reviews.
9. Write and distribute prefunctional inspection checklists. The CxA shall provide a list of the required information submittals.
10. Receive notice that prefunctional checklists have been completed and systems are ready for final prefunctional inspection. Complete inspections and verify that systems are ready for startup.
11. Perform site visits, as necessary, to observe component and system installations. Attend selected planning and job-site meetings to obtain information on construction progress. Review construction meeting minutes for revisions/substitutions relating to the commissioning process. Assist in resolving any discrepancies.
12. Witness all or part of the HVAC piping test and flushing procedure, sufficient to be confident that proper procedures were followed. Document this testing and include the documentation in the commissioning record to be provided with the final Cx Report. Notify CM of any deficiencies in results or procedures.
13. Witness all or part of any ductwork testing and cleaning procedures, sufficient to be confident that proper procedures were followed. Document this testing and include the documentation in the commissioning record to be provided with the final Cx Report. Notify CM of any deficiencies in results or procedures.
14. With necessary assistance and review from the Contractor and installers, write the functional performance test procedures for equipment and systems. This may include energy management control system trending, stand-alone datalogger

- monitoring or manual functional testing, as appropriate to document compliance with the specified sequences of operation.
15. Evaluate systems startup procedures by reviewing start-up reports and by selected site observation.
  16. Review TAB execution plan.
  17. Coordinate and observe functional testing of the control systems. Coordinate retesting as necessary until satisfactory performance is achieved.
  18. Review air and water systems TAB by spot testing, by reviewing completed reports and by selected site observation after receiving the final TAB report.
  19. Analyze any functional performance trend logs and monitoring data to verify system functional performance following completion of TAB.
  20. Maintain a master deficiency and resolution log and a separate functional testing record. Provide written progress reports and test results with recommended actions.
  21. Review equipment warranties to verify that the Owner's responsibilities are clearly defined.
  22. Oversee and approve the training of the Owner's operating personnel.
  23. Compile and maintain a commissioning record.
  24. Review and approve the preparation of O&M manuals.
  25. Provide draft and final commissioning reports.
  26. Coordinate and supervise required seasonal or deferred testing and deficiency corrections. Seasonal tests will be identified in the Cx Plan.
  27. Return to the site at approximately 10 months into the 12 month warranty period and review with facility staff the current building operation and the condition of outstanding issues related to the original and seasonal commissioning. Also interview facility staff and identify problems or concerns they have operating the building as originally intended. Make suggestions for improvements and for recording these changes in the systems manual. Identify areas that may come under warranty or under the original construction contract. Assist facility staff in developing reports, documents and requests for services to remedy outstanding problems.
  28. Identify any warranty phase deficiencies and provide detailed documentation to the Owner and CM.

E. Construction Manager (CM)

1. Manage the contracts of each Prime Contractor.
2. Attend a commissioning scoping meeting and other commissioning team meetings.
3. Oversee completion of PFCs and organize completed checklists in a field binder for review by the CxA. Maintain the active checklist binder, ensuring all CTRs return partially or fully completed checklists. Assist the CxA in reviewing checklist progress throughout construction.

4. Review commissioning progress and deficiency reports and facilitate the communication of formal responses from the CTRs to the CxA.
5. Coordinate the resolution of scheduling conflicts, including those identified by the CxA with respect to commissioning tasks. Where inadequate time allotments are provided for commissioning inspections or tests, work with the CxA to revise schedule dates accordingly.
6. Provide final approval for the completion of the commissioning work.
7. Address any seasonal or deferred testing and any deficiency issues.

F. Prime Contractors (CTRs)

1. Include the cost of supporting commissioning in the contract price.
2. Attend a commissioning scoping meeting and other commissioning team meetings.
3. Furnish a copy of all construction documents, addenda, change orders and submittals and shop drawings related to commissioned equipment to the CxA.
4. Provide the requisite readiness notification to the CxA for equipment prefunctional inspections, startup, and functional testing.
5. Participate in pre-functional inspections, startup and functional testing of all equipment, as directed by the CxA.
6. At least one qualified individual shall be available on-site, as requested by the CxA.
7. Oversee completion of PFCs and organize completed checklists in a field binder for review by the CM and CxA. Assist the CxA in reviewing checklist progress throughout construction.
8. Review the functional performance test procedures submitted by the CxA, prior to testing.
9. Provide the necessary passwords and system access to the control systems to allow the CxA to adjust set points and other systems parameters. The access level should be at the highest level possible with the exception of allowing the CxA to modify the programming sequences.
10. Review commissioning progress and deficiency reports and issue written responses to the CxA as needed.
11. Coordinate the resolution of deficiencies identified by the CxA.
12. Document the completion and/or action taken for the resolution of deficiencies as directed by the CxA and described in the Cx Plan.
13. Coordinate and perform the training of owner personnel as specified. Direct the scheduling of training by CTRs in accordance with their contract requirements.
14. Ensure that all installers execute their commissioning responsibilities according to the Contract Documents and schedule.
15. Prepare O&M manuals, according to the Contract documents, including clarifying and updating the original sequences of operation to as-built conditions. Provide copies to the CxA for review and comment.

16. Coordinate the resolution of scheduling conflicts, including those identified by the CxA with respect to commissioning tasks. Where inadequate time allotments are provided for commissioning inspections or tests, work with the CxA to revise schedule dates accordingly.
17. Assist the CxA as necessary in the seasonal or deferred testing and deficiency corrections required by the specifications and the Commissioning Plan.
18. Ensure that installers execute seasonal or deferred functional performance testing, witnessed by the CxA, according to the specifications and the Commissioning Plan.
19. Ensure that installers correct deficiencies and make necessary adjustments to O&M manuals and as-built drawings for applicable issues identified in any seasonal testing.

#### 1.9 SYSTEMS TO BE COMMISSIONED

- A. The following systems shall be commissioned:
  1. HVAC systems and equipment.
  2. Building automation and temperature control systems.
  3. Lighting control systems.
  4. Domestic hot water system.

#### PART 2 - PRODUCTS (NOT APPLICABLE)

#### PART 3 - EXECUTION

##### 3.1 MEETINGS

- A. Scoping Meeting: The CxA will schedule, plan and conduct a commissioning scoping meeting with the entire commissioning team in attendance. Meeting minutes will be distributed to all parties by the CxA. Information gathered from this meeting will allow the CxA to revise the Commissioning Plan, which will also be distributed to all parties.
- B. Functional Performance Testing Meeting: The CxA will schedule, plan and conduct a functional performance test meeting with the entire commissioning team in attendance to kick-off the FT phase. Required attendees will be identified in advance of the meeting based on the scope of testing required.
- C. Miscellaneous Meetings: Progress meetings will be scheduled and conducted by the CxA, as necessary. Other meetings will be planned and conducted by the CxA as the construction progresses. These meetings will cover coordination, deficiency resolution

and planning issues with particular CTRs. The CxA will plan these meetings and will minimize unnecessary time being spent by CTRs.

### 3.2 REPORTING

- A. The CxA will provide regular reports with increasing frequency as construction and commissioning progresses. Reports will be developed and issued on an as-needed basis according to the activities being performed at any given point during the project.
- B. The CxA will regularly communicate with all members of the commissioning team, keeping them apprised for commissioning progress, and scheduling changes through memos, progress reports, etc.
- C. A final summary report by the CxA will include:
  - 1. A brief summary report that includes a list of participants and roles, brief building description, overview of commissioning and testing scope, and a general description of testing and verification methods. For each commissioned system, the report should contain the opinion of the CxA on the adequacy of the following:
    - a. Equipment installation in accordance with contract drawings & specifications
    - b. Functional performance and efficiency
    - c. Equipment documentation
    - d. Operator Training
  - 2. All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment and operations, future actions, recommended commissioning process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, etc., where the deficiency is documented.
  - 3. Also included in the Commissioning Record shall be the issues log, commissioning plan, progress reports, submittal and O&M manual review comments, training record, and functional testing results. Copies of construction checklists and startup reports will typically be provided under separate cover.
- D. The CxA will compile a Systems Manual that consists of the following:
  - 1. Space and use descriptions
  - 2. Single line drawings and schematics for major systems (to be provided by the design engineer and/or CTRs, as specified)
  - 3. As-built control drawings and sequences of control (to be provided by the controls contractor).
  - 4. Important schedules and setpoints.
  - 5. Instructions for operation of each piece of equipment for emergencies, seasonal adjustment, startup and shutdown.

6. Instructions for energy savings operations and descriptions of the energy savings strategies in the facility.
7. Recommendation for re-commissioning and regular maintenance of the facility.

### 3.3 SUBMITTALS

- A. The CxA will review submittals for commissioned equipment for conformance to the Contract Documents as they relate to the commissioning process, to the functional performance of the equipment and adequacy for developing test procedures. This review is intended primarily to aid in the development of functional testing procedures and only secondarily to verify compliance with equipment specifications. The CxA will notify the Owner, CM, or A/E as requested, of items missing or areas that are not in conformance with Contract Documents and which require resubmission.
- B. The CxA may request additional design narratives depending on the completeness of the design intent documentation and sequences for control equipment provided with the Specifications.
- C. These submittals to the CxA do not constitute compliance for O&M manual documentation.

### 3.4 SYSTEM START-UP AND TESTING

- A. All systems and system components shall be tested by the CTRs and in the presence of the Owner and Design Consultants if desired by the Owner and Design Consultants to demonstrate compliance with specified requirements. To minimize the time of commissioning, contracting, and Design Consultant team members, testing shall be done in seasonal single blocks of time insofar as possible.
- B. The Contractor shall notify the CxA fourteen (14) days prior to scheduled functional performance tests, of the scheduled completion date of the installation verification and prefunctional inspections.
- C. All testing shall be conducted under specified design operating conditions as approved by the CxA and Design Consultants. Where project conditions do not allow for completing functional tests within the allotted schedule, the CxA may elect to defer certain performance tests for a later date. The need for deferred tests will be reviewed by the CxA, CM, A/E, and Owner.
- D. All elements of systems shall be tested to demonstrate that total systems satisfy all requirements of these Specifications. Testing shall be accomplished on a hierarchical basis. Each piece of equipment shall be tested for proper operation, and functionality of

safety devices, followed by each system's subsystem, followed by the entire system, followed by any interlocks to other major systems.

- E. All special testing materials and equipment shall be provided by the CTR. This includes, but is not limited to, proprietary equipment, hand-held control parameter/setpoint adjustment tools, water/air flow balancing readout and adjustment tools.
- F. One copy of all factory test reports and records as well as all start-up documentation shall be provided to the CxA promptly following the completion of the report. Reports shall be completed in a timely fashion and shall not be withheld from review by the CxA.
- G. Test Procedure Development and Test Documentation:
  - 1. At least fourteen (14) days prior to startup of the mechanical system, the CTR shall inform the CxA, the Owner's representative and Design Consultants of the intention to start up the systems.
  - 2. Where phased startup of equipment is required based on project conditions, the proposed startup schedule for each sub-system shall be provided (14) days in advance of commencing startup activities.
- H. Installation Verification Requirements:
  - 1. All systems and system components shall be checked and verified by the CTR that they have been installed according to the drawings, specifications, and manufacturer's written instructions, and that all connections have been made correctly. Discrepancies shall be corrected and resolved to the satisfaction of the engineer and CxA prior to proceeding any further with pre-functional inspections.
  - 2. Each system of interlocked system components shall be observed and verified by the CTR that it is ready to function as specified. This verification shall occur before formal startup is attempted.
  - 3. Verification of complete and proper installation shall be completed prior to the CxA authorizing functional performance testing.
  - 4. The installation verification shall be documented by the CTR in a written format for each system/piece of equipment as designated by the CxA. Each certificate of readiness shall be dated and initialed by the Contractor and clearly stating any items that are deficient or have not been completed. The protocols for this will be further clarified in the Commissioning Plan.
- I. Pre-functional Inspection Requirements:
  - 1. The CxA will provide the inspection forms for each system and equipment.
  - 2. Completion of the pre-functional checklists is the responsibility of the CTR providing the system/equipment.
  - 3. Where work by multiple different CTRs is required for a given system, each CTR will be required to complete the portion of the associated prefunctional checklists for

which their contract is responsible. For example, verification that power wiring is complete for mechanical equipment provided by the MC shall be documented by the EC on the appropriate mechanical equipment checklist. Checks by multiple parties shall be documented within a single, comprehensive checklist record.

4. Following completion of prefunctional checklists, completed checklists shall be submitted to the CM for review with the CxA.
5. Prior to the CxA performing the final pre-functional inspection, the CTRs shall check the equipment for proper installation, adjustments, and shall be calibrate the equipment to verify that it is ready to perform as specified.
6. Verification of complete and proper installation shall be completed prior to performing functional performance tests.
7. Deficiencies identified by the CxA shall be corrected fully and completely before requests for re-inspection by the CxA are made. Functional performance testing shall not be scheduled until all non-conformance issues are satisfactorily resolved and documentation of resolution is complete. Refer to the section on Non-Conformance below for further discussion.

J. Functional Performance Testing Requirements:

1. A functional performance test shall be directed on each complete system. Each function shall be demonstrated to the satisfaction of the CxA based on the written test procedure developed by the CxA to demonstrate conformance to the requirements of the Contract Documents.
2. Each functional performance test shall be performed, witnessed and signed off by the CxA. The CxA and the CTRs will perform the functional testing together. Any exceptions to this will be made clear to the Owner as to the reason and justification.
3. The functional performance testing shall be conducted in accordance with prior approved procedures and documented as required.
4. The Contractor shall notify the contracting team, the CxA, and Design Consultants, at least two weeks prior to the date of schedule functional performance tests. The seasonal functional performance test periods shall be scheduled over a single block of days. The schedule of functional performance tests shall be based on the construction completion schedule.

### 3.5 DOCUMENTATION, NON-CONFORMANCE AND APPROVAL OF TESTS

- A. Documentation: The CxA shall witness and document the results of all functional performance tests using the specific forms developed by the CxA for that purpose.
- B. Non-Conformance:
  1. The CxA will sign-off on the results of the PFIs and functional tests utilizing the appropriate documentation. All deficiencies or non-conformance issues shall be noted and reported to the Owner, CM, and CTRs.

2. Reports of the deficiencies identified will be provided to the project team by the CxA. A log identifying deficiencies for each trade will be provided and periodically updated by the CxA. This log and any accompanying reports or documentation are utilized for the contractor to inform the CxA of the action taken to address the deficiency items and these forms must be returned in a timely manner to the CxA.
  3. Corrections of minor deficiencies identified may be made during the tests at the discretion of the CxA. In such cases, the deficiency and resolution will be documented by the CxA. The need for any retesting shall be at the discretion of the CxA.
  4. Every effort will be made to expedite the testing process and minimize unnecessary delays, while not compromising the integrity of the procedures. However, the CxA will not be pressured into overlooking deficient work or compromising acceptance criteria to satisfy scheduling or cost issues, unless there is an overriding reason to do so at the request of the Owner.
  5. Cost of Retesting
    - a. The CTRs shall bear all costs to repeat a pre-functional inspection or functional test.
    - b. There shall be no limit on the time required of the CTR to correct items of non-conformance so long as the intent of the contract documents has not been met.
    - c. The time for the CxA to direct any retesting required because a specific prefunctional inspection of start-up test item, reported to have been successfully completed, but determined during functional testing to be faulty, will be back-charged to the appropriate CTR.
    - d. The cost for the CxA to direct or execute a single round of retesting following identification of deficiencies during functional performance testing shall belong to the CxA. Following one round of re-testing, if it is found that the deficiencies previously identified have still not been successfully corrected by the CTR, the time for the CxA to direct any additional re-testing shall be back-charged to the appropriate CTR.
  6. The CTR shall respond in writing to the CxA at least as often as commissioning meetings are scheduled concerning the status of each apparent outstanding discrepancy identified during commissioning. Discussion shall cover explanations of any disagreements and proposals for their resolution.
- C. Failure Due to Manufacturer Defect or Improper Installation: If 10% of, or three, whichever is greater, of identical pieces of equipment (size alone does not constitute a difference) fail to perform to the Contract Documents (either mechanically or substantively) due to manufacturing defect or improper installation, not allowing it to meet its submitted performance spec, all identical units may be considered unacceptable by the CxA, CM, A/E or Owner. In such case, the Contractor shall provide the Owner with the following:

1. Within one week of notification from the A/E (via the CxA), the installer or manufacturer's representative shall examine all other identical units making a record of the findings. The findings shall be provided to the CxA or CM within two weeks of the original notice.
2. Within two weeks of the original notification, the installer or manufacturer shall provide a signed and dated written explanation of the problem, cause of failures, etc., and all proposed solutions, which shall include full equipment submittals. The proposed solutions shall not significantly exceed the specification requirements of the original installation.
3. The CxA, CM and A/E will determine whether a replacement of all identical units or a repair is acceptable.
4. Two examples of the proposed solution will be installed by the Contractor and the CxA will be allowed to test the installations for up to one week, upon which the CxA or CM will decide whether to accept the solution.
5. Upon acceptance, the installer and/or manufacturer shall replace or repair all identical items, at their expense, and extend warranty accordingly, if the original equipment warranty had begun. The replacement/repair work shall proceed with reasonable speed beginning within one week from when parts can be obtained.

D. Approval: The CxA documents each satisfactorily demonstrated functional test.

### 3.6 OPERATION AND MAINTENANCE MANUALS

#### A. Standard O&M Manuals

1. The specific content and format requirements for the standard O&M manuals are detailed in the contract documents. Special requirements for the controls contractor and TAB contractor are detailed in the contract documents.
2. Prior to substantial completion, the CxA shall review the O&M manuals, documentation and as-builts for systems that were commissioned to verify compliance with the specifications. The CxA will communicate deficiencies in the manuals to the CTRs, CM, A/E or Owner as requested. Upon successful review of the corrections, the CxA recommends approval and acceptance of these sections of the O&M manuals to the CM, A/E and Owner. The CxA also reviews each commissioned equipment's warranty and verifies that all requirements to keep the warranty valid are clearly stated. This work does not supersede the A/E's review of the O&M manuals according to the A/E contract.

### 3.7 TRAINING OF OWNER PERSONNEL

- A. The CTRs shall be responsible for training coordination, scheduling training sessions with the CM, and for ultimately ensuring that training is completed.

- B. The CxA shall be responsible for overseeing and approving the content and adequacy of the training of the Owner personnel for commissioned equipment. Training sessions shall be attended by the CxA on an as-needed basis.
- C. The CxA shall attend a meeting with the facility manager and lead design engineer to determine the special needs and areas where training would be most valuable. The Owner and CxA shall decide how rigorous the training should be for each piece of commissioned equipment.
- D. In addition to these general requirements, the specific training requirements of Owner's personnel by CTRs, as detailed in the specifications, shall be provided.
- E. Each CTR and vendor responsible for training will submit a written training plan to the CxA, for review and approval prior to training. The plan will cover the following elements:
  - 1. Equipment (included in training).
  - 2. Intended audience.
  - 3. Location of training.
  - 4. Objectives.
  - 5. Subjects covered (description, duration of discussion, special methods, etc.).
  - 6. Duration of training on each subject.
  - 7. Instructor for each subject and qualifications.
  - 8. Methods (classroom lecture, video, site walk thru, actual demonstrations, etc.).
- F. The CxA will assist the CM, and CTRs in developing an overall training plan and coordinating the schedules with the CM and Owner. The CxA develops criteria for determining that the training was satisfactorily completed, including attending some of the training.

### 3.8 DEFERRED TESTING

- A. Unforeseen Deferred Tests: If any inspection or test cannot be completed due to the building structure, required occupancy condition or other deficiency, execution of inspections and functional testing may be delayed upon approval of the CM or Owner. These tests will be conducted in the same manner as the seasonal test as soon as possible. Services of necessary parties shall be negotiated.
- B. Seasonal Testing: During the warranty period, seasonal testing (tests delayed until weather conditions are closer to the system's design) shall be completed as part of this contract. The CxA shall coordinate this activity. Tests will be executed, documented and deficiencies corrected by the appropriate CTRs, with facilities staff and the CxA witnessing. Any final adjustments to the O&M manuals and as-builts due to the testing will be made. Systems for which seasonal testing is anticipated will be identified in the Commissioning Plan.

### 3.9 WRITTEN WORK PRODUCTS

- A. The commissioning process generates a number of written work products described in various parts of the specifications. The Commissioning Plan lists all the formal written work products, describes briefly their contents, who is responsible to create them, their due dates, who receives and approves them and the location of the specification to create them. In summary the written products are:

Product	Developed By
1. Final Commissioning Plan	CxA
2. Commissioning Schedules	CxA, CM and CTRs
3. Equipment Documentation Submittals	CTRs
4. Sequence Clarifications	A/E and CTRs as needed
5. Pre-Functional Inspection Forms	CxA
6. Pre-Functional Inspections	CxA and CTRs
7. Startup and Initial Checkout Plans	CTRs
8. Startup and Factory Test Reports	CTRs
9. Final TAB Report	MC
10. Commissioning Progress Record	CxA
11. Deficiency Reports	CxA
12. Functional Test Procedures	CxA
13. O&M Manuals	CTRs
14. Commissioning Record	CxA
15. Overall Training Plans	CxA, CM and CTRs
16. Final Commissioning Report	CxA

### 3.10 SUBSTANTIAL COMPLETION

- A. CTRs shall prepare and submit a list of completed and open commissioning activities including schedules for completion of open items to CxA prior to requesting approval for Substantial Completion.
1. CxA shall review and provide comments to CM and A/E.

### 3.11 FINAL ACCEPTANCE

- A. CTRs shall obtain and submit certification from CxA that commissioning process is complete.
- B. When Contractor considers that construction-phase commissioning process, or a portion thereof which Owner agrees to accept separately, is complete, Contractor shall prepare and submit to Owner and Commissioning Authority through Architect a comprehensive

list of items to be completed or corrected. Failure to include an item on such list does not alter Contractor's responsibility to compete commissioning process.

END OF SECTION 019113

