PROJECT MANUAL

# PORT JERVIS CITY SCHOOL DISTRICT

**150 Pike Street**
**Port Jervis, New York 12771**

## Alterations to:
## Middle School (former Anna S. Kuhl ES) / High School & New Varsity Baseball / Softball Dugouts / Storage

**SED Control No.'s:**

**44-18-00-05-0-012-040 - Middle School / High School**
**44-18-00-05-7-057-001 - New Varsity Baseball Dugout / Storage**
**44-18-00-05-7-058-001 - New Varsity Softball Dugout / Storage**

**BCA Project No. 2019-011 PH2**


**Bernier, Carr & Associates, Engineers, Architects and Land Surveyors, P.C.**
**798 Cascadilla Street, Suite C**
**Ithaca, New York 14850**
**(607) 319–4053 / Fax (315) 782-7192**


**Set # _____**

**VOLUME I OF II**
**BIDDING DOCUMENTS AND TECHNICAL SPECIFICATIONS**
**DIVISIONS 00-12**

**The above signed Architect/Engineer certifies that, to the best of his knowledge, information and belief, the plans and specifications are in accordance with applicable requirements of the New York State Uniform Fire Prevention and Building Code, the State Energy Conservation Code, construction standards of the State Education Department, and Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York.**


**Last Updated October 10, 2023**

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# NOTICE TO BIDDERS

The **Port Jervis City School District** (**Owner),** invites the submission of Sealed Bid Proposals to furnish materials and labor to complete the

Alterations to MS/HS & New Varsity Baseball / Softball Dugouts / Storage
Project No. 2019-011 PH2

all in accordance with the plans and specifications.

This work is to be bid under a MULTIPLE CONTRACT system covering the work of all trades under separate contracts as follows:

Contract No. 1: GC2 - General Construction
Contract No. 2: MC2 - Mechanical Construction
Contract No. 3: PC2 - Plumbing Construction
Contract No. 4: EC2 - Electrical Construction
Contract No. 5: SC2 - Site Construction
Contract No. 7: FS2 – Food Service

Sealed Bid Proposals will be received until **1:00 p.m.** prevailing time, on **Tuesday, November 14, 2023,** at the

Port Jervis City School District
District Administration Office
150 Pike Street
Port Jervis, New York 12771

Any bid may be withdrawn without prejudice prior to the official bid submission time or any publicized postponement thereof.

Complete digital sets of Bidding Documents, drawings and specifications, may be obtained online as a download at the following website: https://thebcgroup.biddyhq.com under 'projects.'

Complete sets of Bidding Documents, Drawings and Specifications, may be obtained from REVplans, 28 Church Street; Suite 7, Warwick, New York 10990 Tel: 1-845-651-3845, upon depositing the sum of $100.00 for each combined set of documents. Checks or money orders shall be made payable to BCA Architects & Engineers. Plan deposit is refundable in accordance with the terms in the Instructions to Bidders to all submitting bids. Bidders wishing documents mailed to them shall include, in addition to the document deposit, a non-refundable check of $15.00 per set for handling and postage or a UPS/FedEx account number.

Please note REVplans (https://thebcgroup.biddyhq.com) is the designated location and means for distributing and obtaining all bid package information. Only those Contract Documents obtained in this manner will enable a prospective bidder to be identified as an official plan holder of record. The Provider takes no responsibility for the completeness of Contract Documents obtained from other sources. Contract Documents obtained from other sources may not be accurate or may not contain addenda that may have been issued.

All bid addenda will be transmitted to registered plan holders via email and will be available at https://thebcgroup.biddyhq.com. Plan holders who have paid for 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. There will be no charge for registered plan holders to obtain hard copies of the bid addenda.

The Bid Documents and Contract Documents may also be examined at the office of BCA Architects & Engineers, 798 Cascadilla Street, Suite C, Ithaca, New York 14850.

**PLANS AND SPECIFICATIONS REMAIN THE PROPERTY OF BCA Architects & Engineers AND MUST BE RETURNED IN GOOD CONDITION WITHIN THIRTY (30) BUSINESS DAYS AFTER AWARD OF CONTRACT OR REJECTION OF BIDS.** The plan deposit for one set of Plans and Specifications will be refunded to bona fide bidders returning Plans and Specifications to REVplans within 30 business days after award of Contract or rejection of bids. A partial refund of the plan deposit, in an amount equal to the full amount of such deposit, less the actual cost of reproduction of the Plans and Specifications shall be made to non-bidders and unsuccessful

bidders for the return of all other copies of the Plans and Specifications in good condition within 30 business days following the award of the Contract or the rejection of the bids.

Plan Deposit Policy, Plan Holders List, Pre-Bid Estimates, and a list of Addendums, if any, may also be found at www.thebcgroup.com/bidding.

A pre-bid conference and onsite review of the project areas will be conducted by the Architect and Construction Manager on **Monday, October 23, 2023,** commencing at **3:30 p.m.** at the Port Jervis Maintenance Building, 20 US 209, Port Jervis, New York. The pre-bid conference will be for all contracts.

Bids shall be prepared as set forth in the Information to Bidders, enclosed in a sealed envelope bearing on its face the name, address and phone number of the bidder and the title of the project.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and the respective employees, arising out of or in connection with the administration, evaluation or recommendation of any bid.

The Owner further reserves its right to disqualify bidders for any material failure to comply with the Information for Bidders and General, Supplementary, and Special Conditions.

The Owner reserves the right to reject any or all bids and to waive any informalities or defects in such bid either before or after opening.

Each bidder must deposit with his bid, security in the form and subject to the conditions provided in the "INFORMATION FOR BIDDERS". Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and to the minimum wage rates to be paid under the Contract. No bidder may withdraw his bid within 45 business days after the date of the opening of bids.

**ATTENTION OUT-OF-STATE BIDDERS**

Please pay particular attention to the Form of Proposal and it related forms in the project manual. Out-of-State Bidders are required to complete the “Statement Concerning Authority to do Business in the State of New York for non-New York State Companies” located in the Form of Proposal package. There are three sections that must be completed. You must also have the Non-Collusion Certificate completed and signed and if you are a corporation, you must have the Resolution completed and signed.

No bid will be considered when opened unless accompanied by a certified copy of your Authority to do Business in New York State. This is not to be confused with a sales tax certificate. The Authority can be obtained by contacting:

New York State Department of State
Division of Corporations
162 Washington Avenue
Albany, NY 12231
(518) 473-2492

If the Certificate does not accompany the bid, the bid is not valid.

In the event you are of the opinion that you are not required to obtain the Authority To Do Business in New York state, and you are not a New York State Corporation, then you should complete the *Statement Concerning Authority to do Business*. You must complete two out of three sections. The top portion must be completed by all vendors needing to complete this document and then either the *Individual Acknowledgement* or the *Corporate Acknowledgement,* depending on the status of your business.

By Order Of:

Date: _____

_____
District Clerk

**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

BID DESCRIPTION

CONTRACT NO. 1 – GENERAL CONSTRUCTION

Work under this Contract may generally be described to include, but not be limited to the following:

> Procurement and general requirements; and all other work and related materials as indicated on the Contract Drawings, Multiple Contracts Summary, as specified herein, and as required for the complete and proper execution of the Work.

This outline is a general indication of the requirements of this Contract and is not intended to be all inclusive. The complete Contract Documents in their entirety, to include any and all addenda, form the basis of the responsibility of this Contract.

Each contractor is advised that the specification sections in Division 01 - General Requirements apply distinctly to each Prime Contractor and the balance of the technical specifications apply to each Contractor (as appropriate) for the accomplishment of his work.

All work of this contract shall be coordinated with other Prime Contractors involved in the project. All work shall additionally be coordinated with all other activities, construction, or others at each site throughout the progress of the work of this project.

The Contractor shall use all means possible and shall be responsible for coordinating the installation of all materials of this Contract with work of all other trades involved with this project. All work shall be done in strict accordance with the Contract Documents and in compliance with all applicable Local, State and Federal Codes.

Prior to the Bid Date of this project, the Contractor shall be completely responsible for visiting the project site to become completely familiar with the scope of this project.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and the respective employees, arising out of or in connection with the administration, evaluation or recommendation of any bid.

It shall be completely understood that the use of asbestos containing materials in this project is strictly forbidden and all materials are provided in accordance with the Federal Asbestos Hazard Emergency Response Act (AHERA), and the New York State Asbestos Safety Act (SASA).

In addition to those items in the Base Bid, the Contractor shall further sub-divide his bid proposal as described in the following bid items, alternates, and/or unit prices. The Contractor shall include in the Base Bid all of the work of this Contract not specifically described in a Bid Item or Alternative. The Owner reserves the right to accept any and/or all of the Bid Items and/or Alternates or any combination thereof and to waive any informalities or defects in the bid proposals either before or after opening.

BID ITEMS

**Allowances:** As described in Specification Section 01 2100 – Allowances

- Bid Item No. 1 – Field Directive Allowance

**Unit Prices:** As described in Specification Section 01 2200 – Unit Prices

- Bid Item No. 1 – Field Directive Allowance

**Alternates:** None

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**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

The Undersigned _____
Contractor

_____
Address Zip Code

hereby certifies that he/she has examined and fully comprehends the requirements and intent of the drawings and specifications as prepared by BCA Architects & Engineers, for **CONTRACT NO. 1 – GENERAL CONSTRUCTION** to furnish all labor, materials, supplies, plant and equipment and other facilities to properly perform the work for the total:

**BASE BID**

*BASE BID SUM of*

_____ DOLLARS ($_____)

*Bid Item No. 1 – Field Directive Allowance*

Three-Hundred Thousand DOLLARS ($ 300,000.00)

***TOTAL BASE BID (Base Bid and Bid Item No. 1 Included)***

_____ DOLLARS ($_____)

Receipt of the following Addenda is hereby acknowledged:

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

_____
(Name of Bidder)

Signed _____

Title _____

Street _____

City/State _____ Zip Code _____

Telephone _____

Fax _____

Cell Phone _____

Email _____

Date _____, 20__

## NON-COLLUSIVE BIDDING CERTIFICATE

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 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.

(Signed) _____

_____
Title

RESOLUTION - for corporate bidders only

RESOLVED that _____ be authorized to sign and submit the bid or proposal
(individual)
of this corporation for the following project

_____
(describe project)

and to include in such bid or proposal the certificate as to non-collusion required by Section 103-d of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____ corporation at a meeting of its Board of Directors held on the _____ day of _____, 20__.

SEAL OF CORPORATION)

_____
Secretary

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**Statement Concerning Authority to do Business**
**in the State of New York for non-New York State Companies**

**Please complete all requested information in both sections below.**

A certificate of authority is required of out of state companies if the company has property, employees or agents used in conducting its business activities within the state of New York. Generally, business activities are defined as having an office in the state, making sales or promotional calls within the state, delivering products or merchandise and/or making service calls within the state.

Companies conducting mail order activities with New York customers are not considered doing business within New York State if the company **has no property, employees, agents and/or representatives in or, traveling into the state.** _____ is such a mail order company, and as such, is not
(Fill in company name)
required to hold a Certificate of Authority.

Performance under the attached bid will not result in any action that would result in a requirement to obtain a Certificate as all commerce will be conducted by mail. It is the opinion of the legal counsel for this firm:

Name _____
Address _____ (Complete the information)
Address _____
Telephone _____

that this firm is not required to file an Authority to do Business in New York State as required by Section 1301 of the NYS Business Corporate Law.

==========

**Complete one of the following two acknowledgements in addition to above information.**

Individual Acknowledgment for Sole Proprietors or Partnerships

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me, the subscriber, personally appeared _____ to me personally known and known to me to be the same person described in and who executed the within Instrument, and he/she acknowledged to me that he/she executed the same.

_____
Notary Public

Corporate Acknowledgment for corporations or LLC's

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me personally known, who, being by me duly sworn did depose and say that he/she resides in _____ that he/she is the _____ of _____ the corporation described in, and which executed, the above Instrument; that he/she knows the seal of said corporation; that the seal affixed to said Instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he/she signed his/her name thereto by like order.

_____
Notary Public

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# FEDERAL LAW CERTIFICATION

I, _____ [insert name], the _____ [insert title] of _____ [name of company], _____ [Nine Digit DUNS Number] hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification. This includes any violations related to the Davis-Bacon Act, the federal prevailing wage statute, the Copeland Act and the Contract Hours and Safety Standards Act which covers hours of work and safety standards in federal public contracting.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

_____

(Date)

_____

(Signature)

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## STATEMENT OF SURETY'S INTENT

To: _____
(Owner)

We have reviewed the Bid of _____
(Contractor)

of _____
(Address)

for _____

_____
(Project)

Bids for which will be received on _____
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted, and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assume no liability to you or third parties if, for any reason, we do not execute the requisite bonds.

We are duly authorized to do business in the State of New York.

Attest:

_____

_____
(Surety's Authorized Signature)

**Attach Power of Attorney**

**(Corporate Seal, if any.
If no seal, write "No Seal"
across this place and sign.)**

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT

As a result of the Iran Divestment Act of 2012 (the "Act"), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective Aprils 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law) (the "Prohibited Entities List"). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, that to the best of its knowledge and belief, that each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the School District receive information that a Bidder/Contractor is in violation of the above-referenced certification, the School District will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the School District shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default. The School District reserves the right to reject any bid or request for assignment for a Bidder/Contractor that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any Bidder/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

I,_____, being duly sworn, deposes and says that he/she is the _____ of the_____Corporation and that neither the Bidder/ Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

_____

SIGNED

SWORN to before me this

_____ day of _____

20____

Notary Public: _____

**EITHER THIS FORM OR THE "DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT" FORM ON THE FOLLOWING PAGE MUST BE COMPLETED AND SUBMITTED WITH THE BID**

**DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT**

***Bidders shall complete this form if they cannot certify that the bidder /contractor or any proposed subcontractor is not identified on the Prohibited Entities List. The District reserves the right to undertake any investigation into the information provided herein or to request additional information from the bidder.***

Name of the Bidder: _____

Address of Bidder: _____

Has bidder been involved in investment activities in Iran? _____

Describe the type of activities including but not limited to the amounts and the nature of the investments (*e.g*. banking, energy, real estate) _____

_____

_____

_____

If so, when did the first investment activity occur? _____

Have the investment activities ended? _____

If so, what was the date of the last investment activity? _____

If not, have the investment activities increased or expanded since April 12, 2012? _____

Has the bidder adopted, publicized, or implemented a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran? _____

If so, provide the date of the adoption of the plan by the bidder and proof of the adopted resolution, if any and a copy of the formal plan. _____

In detail, state the reasons why the bidder cannot provide the Certification of Compliance with the Iran Divestment Act below (additional pages may be attached):

_____

_____

_____

_____

_____

_____

I, _____ being duly sworn, deposes and says that he/she is the _____ of

the_____ Corporation and the foregoing is true and accurate.

_____

SIGNED

SWORN to before me this

_____ day of _____, 20___

Notary Public: _____

**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

BID DESCRIPTION

CONTRACT NO. 2 – MECHANICAL CONSTRUCTION

Work under this Contract may generally be described to include, but not be limited to the following:

> Procurement and general requirements; and all other work and related materials as indicated on the Contract Drawings, Multiple Contracts Summary, as specified herein, and as required for the complete and proper execution of the Work.

This outline is a general indication of the requirements of this Contract and is not intended to be all inclusive. The complete Contract Documents in their entirety, to include any and all addenda, form the basis of the responsibility of this Contract.

Each contractor is advised that the specification sections in Division 01 - General Requirements apply distinctly to each Prime Contractor and the balance of the technical specifications apply to each Contractor (as appropriate) for the accomplishment of his work.

All work of this contract shall be coordinated with other Prime Contractors involved in the project. All work shall additionally be coordinated with all other activities, construction, or others at each site throughout the progress of the work of this project.

The Contractor shall use all means possible and shall be responsible for coordinating the installation of all materials of this Contract with work of all other trades involved with this project. All work shall be done in strict accordance with the Contract Documents and in compliance with all applicable Local, State and Federal Codes.

Prior to the Bid Date of this project, the Contractor shall be completely responsible for visiting the project site to become completely familiar with the scope of this project.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and the respective employees, arising out of or in connection with the administration, evaluation or recommendation of any bid.

It shall be completely understood that the use of asbestos containing materials in this project is strictly forbidden and all materials are provided in accordance with the Federal Asbestos Hazard Emergency Response Act (AHERA), and the New York State Asbestos Safety Act (SASA).

In addition to those items in the Base Bid, the Contractor shall further sub-divide his bid proposal as described in the following bid items, alternates, and/or unit prices. The Contractor shall include in the Base Bid all of the work of this Contract not specifically described in a Bid Item or Alternative. The Owner reserves the right to accept any and/or all of the Bid Items and/or Alternates or any combination thereof and to waive any informalities or defects in the bid proposals either before or after opening.

BID ITEMS

**Allowances:** As described in Specification Section 01 2100 – Allowances

- Bid Item No. 1 – Field Directive Allowance

**Unit Prices:** None

**Alternates:** None

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**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

The Undersigned _____
Contractor

_____
Address Zip Code

hereby certifies that he/she has examined and fully comprehends the requirements and intent of the drawings and specifications as prepared by BCA Architects & Engineers, for **CONTRACT NO. 2 – MECHANICAL CONSTRUCTION** to furnish all labor, materials, supplies, plant and equipment and other facilities to properly perform the work for the total:

**BASE BID**

*BASE BID SUM of*

_____ DOLLARS ($_____)

*Bid Item No. 1 – Field Directive Allowance*

Ninety-Five Thousand DOLLARS ($ 95,000.00)

***TOTAL BASE BID (Base Bid and Bid Item No. 1 Included)***

_____ DOLLARS ($_____)

Receipt of the following Addenda is hereby acknowledged:

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

_____
(Name of Bidder)

Signed _____

Title _____

Street _____

City/State _____ Zip Code _____

Telephone _____

Fax _____

Cell Phone _____

Email _____

Date _____, 20__

## NON-COLLUSIVE BIDDING CERTIFICATE

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 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.

(Signed) _____

_____
Title

RESOLUTION - for corporate bidders only

RESOLVED that _____ be authorized to sign and submit the bid or proposal
(individual)
of this corporation for the following project

_____
(describe project)

and to include in such bid or proposal the certificate as to non-collusion required by Section 103-d of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____ corporation at a meeting of its Board of Directors held on the _____ day of _____, 20__.

SEAL OF CORPORATION)

_____
Secretary

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**Statement Concerning Authority to do Business**
**in the State of New York for non-New York State Companies**

**Please complete all requested information in both sections below.**

A certificate of authority is required of out of state companies if the company has property, employees or agents used in conducting its business activities within the state of New York. Generally, business activities are defined as having an office in the state, making sales or promotional calls within the state, delivering products or merchandise and/or making service calls within the state.

Companies conducting mail order activities with New York customers are not considered doing business within New York State if the company **has no property, employees, agents and/or representatives in or, traveling into the state.** _____ is such a mail order company, and as such, is not
(Fill in company name)
required to hold a Certificate of Authority.

Performance under the attached bid will not result in any action that would result in a requirement to obtain a Certificate as all commerce will be conducted by mail. It is the opinion of the legal counsel for this firm:

Name _____
Address _____ (Complete the information)
Address _____
Telephone _____

that this firm is not required to file an Authority to do Business in New York State as required by Section 1301 of the NYS Business Corporate Law.

==========

**Complete one of the following two acknowledgements in addition to above information.**

Individual Acknowledgment for Sole Proprietors or Partnerships

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me, the subscriber, personally appeared _____ to me personally known and known to me to be the same person described in and who executed the within Instrument, and he/she acknowledged to me that he/she executed the same.

_____
Notary Public

Corporate Acknowledgment for corporations or LLC's

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me personally known, who, being by me duly sworn did depose and say that he/she resides in _____ that he/she is the _____ of _____ the corporation described in, and which executed, the above Instrument; that he/she knows the seal of said corporation; that the seal affixed to said Instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he/she signed his/her name thereto by like order.

_____
Notary Public

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# FEDERAL LAW CERTIFICATION

I, _____ [insert name], the _____ [insert title] of _____ [name of company], _____ [Nine Digit DUNS Number] hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification. This includes any violations related to the Davis-Bacon Act, the federal prevailing wage statute, the Copeland Act and the Contract Hours and Safety Standards Act which covers hours of work and safety standards in federal public contracting.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

_____

(Date)

_____

(Signature)

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## STATEMENT OF SURETY'S INTENT

To: _____
(Owner)

We have reviewed the Bid of _____
(Contractor)

of _____
(Address)

for _____

_____
(Project)

Bids for which will be received on _____
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted, and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assume no liability to you or third parties if, for any reason, we do not execute the requisite bonds.

We are duly authorized to do business in the State of New York.

Attest:

_____

_____
(Surety's Authorized Signature)

**Attach Power of Attorney**

**(Corporate Seal, if any.
If no seal, write "No Seal"
across this place and sign.)**

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT

As a result of the Iran Divestment Act of 2012 (the "Act"), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective Aprils 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law) (the "Prohibited Entities List"). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, that to the best of its knowledge and belief, that each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the School District receive information that a Bidder/Contractor is in violation of the above-referenced certification, the School District will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the School District shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default. The School District reserves the right to reject any bid or request for assignment for a Bidder/Contractor that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any Bidder/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

I,_____, being duly sworn, deposes and says that he/she is the _____ of the_____Corporation and that neither the Bidder/ Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

_____

SIGNED

SWORN to before me this

_____ day of _____

20____

Notary Public: _____

**EITHER THIS FORM OR THE "DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT" FORM ON THE FOLLOWING PAGE MUST BE COMPLETED AND SUBMITTED WITH THE BID**

**DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT**

***Bidders shall complete this form if they cannot certify that the bidder /contractor or any proposed subcontractor is not identified on the Prohibited Entities List. The District reserves the right to undertake any investigation into the information provided herein or to request additional information from the bidder.***

Name of the Bidder: _____

Address of Bidder: _____

Has bidder been involved in investment activities in Iran? _____

Describe the type of activities including but not limited to the amounts and the nature of the investments (*e.g*. banking, energy, real estate) _____

_____

_____

_____

If so, when did the first investment activity occur? _____

Have the investment activities ended? _____

If so, what was the date of the last investment activity? _____

If not, have the investment activities increased or expanded since April 12, 2012? _____

Has the bidder adopted, publicized, or implemented a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran? _____

If so, provide the date of the adoption of the plan by the bidder and proof of the adopted resolution, if any and a copy of the formal plan. _____

In detail, state the reasons why the bidder cannot provide the Certification of Compliance with the Iran Divestment Act below (additional pages may be attached):

_____

_____

_____

_____

_____

_____

I, _____ being duly sworn, deposes and says that he/she is the _____ of

the_____ Corporation and the foregoing is true and accurate.

_____

SIGNED

SWORN to before me this

_____ day of _____, 20___

Notary Public: _____

**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage / Storage**

BID DESCRIPTION

CONTRACT NO. 3 – PLUMBING CONSTRUCTION

Work under this Contract may generally be described to include, but not be limited to the following:

> Procurement and general requirements; and all other work and related materials as indicated on the Contract Drawings, Multiple Contracts Summary, as specified herein, and as required for the complete and proper execution of the Work.

This outline is a general indication of the requirements of this Contract and is not intended to be all inclusive. The complete Contract Documents in their entirety, to include any and all addenda, form the basis of the responsibility of this Contract.

Each contractor is advised that the specification sections in Division 01 - General Requirements apply distinctly to each Prime Contractor and the balance of the technical specifications apply to each Contractor (as appropriate) for the accomplishment of his work.

All work of this contract shall be coordinated with other Prime Contractors involved in the project. All work shall additionally be coordinated with all other activities, construction, or others at each site throughout the progress of the work of this project.

The Contractor shall use all means possible and shall be responsible for coordinating the installation of all materials of this Contract with work of all other trades involved with this project. All work shall be done in strict accordance with the Contract Documents and in compliance with all applicable Local, State and Federal Codes.

Prior to the Bid Date of this project, the Contractor shall be completely responsible for visiting the project site to become completely familiar with the scope of this project.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and the respective employees, arising out of or in connection with the administration, evaluation or recommendation of any bid.

It shall be completely understood that the use of asbestos containing materials in this project is strictly forbidden and all materials are provided in accordance with the Federal Asbestos Hazard Emergency Response Act (AHERA), and the New York State Asbestos Safety Act (SASA).

In addition to those items in the Base Bid, the Contractor shall further sub-divide his bid proposal as described in the following bid items, alternates, and/or unit prices. The Contractor shall include in the Base Bid all of the work of this Contract not specifically described in a Bid Item or Alternative. The Owner reserves the right to accept any and/or all of the Bid Items and/or Alternates or any combination thereof and to waive any informalities or defects in the bid proposals either before or after opening.

BID ITEMS

**Allowances:** As described in Specification Section 01 2100 – Allowances

- Bid Item No. 1 – Field Directive Allowance

**Unit Prices:** None

**Alternates:** None

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**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage / Storage**

The Undersigned _____
Contractor

_____
Address Zip Code

hereby certifies that he/she has examined and fully comprehends the requirements and intent of the drawings and specifications as prepared by BCA Architects & Engineers, for **CONTRACT NO. 3 – PLUMBING CONSTRUCTION** to furnish all labor, materials, supplies, plant and equipment and other facilities to properly perform the work for the total:

**BASE BID**

*BASE BID SUM of*

_____ DOLLARS ($_____)

*Bid Item No. 1 – Field Directive Allowance*

Twenty-Four Thousand DOLLARS ($ 24,000.00)

***TOTAL BASE BID (Base Bid and Bid Item No. 1 Included)***

_____ DOLLARS ($_____)

Receipt of the following Addenda is hereby acknowledged:

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

_____

(Name of Bidder)

Signed _____

Title _____

Street _____

City/State _____ Zip Code _____

Telephone _____

Fax _____

Cell Phone _____

Email _____

Date _____, 20__

## NON-COLLUSIVE BIDDING CERTIFICATE

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 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.

(Signed) _____

_____
Title

RESOLUTION - for corporate bidders only

RESOLVED that _____ be authorized to sign and submit the bid or proposal
(individual)
of this corporation for the following project

_____
(describe project)

and to include in such bid or proposal the certificate as to non-collusion required by Section 103-d of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____ corporation at a meeting of its Board of Directors held on the _____ day of _____, 20__.

SEAL OF CORPORATION)

_____
Secretary

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**Statement Concerning Authority to do Business**
**in the State of New York for non-New York State Companies**

**Please complete all requested information in both sections below.**

A certificate of authority is required of out of state companies if the company has property, employees or agents used in conducting its business activities within the state of New York. Generally, business activities are defined as having an office in the state, making sales or promotional calls within the state, delivering products or merchandise and/or making service calls within the state.

Companies conducting mail order activities with New York customers are not considered doing business within New York State if the company **has no property, employees, agents and/or representatives in or, traveling into the state.** _____ is such a mail order company, and as such, is not
(Fill in company name)
required to hold a Certificate of Authority.

Performance under the attached bid will not result in any action that would result in a requirement to obtain a Certificate as all commerce will be conducted by mail. It is the opinion of the legal counsel for this firm:

Name _____
Address _____ (Complete the information)
Address _____
Telephone _____

that this firm is not required to file an Authority to do Business in New York State as required by Section 1301 of the NYS Business Corporate Law.

==========

**Complete one of the following two acknowledgements in addition to above information.**

Individual Acknowledgment for Sole Proprietors or Partnerships

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me, the subscriber, personally appeared _____ to me personally known and known to me to be the same person described in and who executed the within Instrument, and he/she acknowledged to me that he/she executed the same.

_____
Notary Public

Corporate Acknowledgment for corporations or LLC's

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me personally known, who, being by me duly sworn did depose and say that he/she resides in _____ that he/she is the _____ of _____ the corporation described in, and which executed, the above Instrument; that he/she knows the seal of said corporation; that the seal affixed to said Instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he/she signed his/her name thereto by like order.

_____
Notary Public

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# FEDERAL LAW CERTIFICATION

I, _____ [insert name], the _____ [insert title] of _____ [name of company], _____ [Nine Digit DUNS Number] hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification. This includes any violations related to the Davis-Bacon Act, the federal prevailing wage statute, the Copeland Act and the Contract Hours and Safety Standards Act which covers hours of work and safety standards in federal public contracting.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

_____

(Date)

_____

(Signature)

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## STATEMENT OF SURETY'S INTENT

To: _____
(Owner)

We have reviewed the Bid of _____
(Contractor)

of _____
(Address)

for _____

_____
(Project)

Bids for which will be received on _____
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted, and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assume no liability to you or third parties if, for any reason, we do not execute the requisite bonds.

We are duly authorized to do business in the State of New York.

Attest:

_____

_____
(Surety's Authorized Signature)

**Attach Power of Attorney**

**(Corporate Seal, if any.
If no seal, write "No Seal"
across this place and sign.)**

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT

As a result of the Iran Divestment Act of 2012 (the "Act"), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective Aprils 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law) (the "Prohibited Entities List"). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, that to the best of its knowledge and belief, that each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the School District receive information that a Bidder/Contractor is in violation of the above-referenced certification, the School District will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the School District shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default. The School District reserves the right to reject any bid or request for assignment for a Bidder/Contractor that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any Bidder/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

I,_____, being duly sworn, deposes and says that he/she is the _____ of the_____Corporation and that neither the Bidder/ Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

_____

SIGNED

SWORN to before me this

_____ day of _____

20____

Notary Public: _____

**EITHER THIS FORM OR THE "DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT" FORM ON THE FOLLOWING PAGE MUST BE COMPLETED AND SUBMITTED WITH THE BID**

**DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT**

***Bidders shall complete this form if they cannot certify that the bidder /contractor or any proposed subcontractor is not identified on the Prohibited Entities List. The District reserves the right to undertake any investigation into the information provided herein or to request additional information from the bidder.***

Name of the Bidder: _____

Address of Bidder: _____

Has bidder been involved in investment activities in Iran? _____

Describe the type of activities including but not limited to the amounts and the nature of the investments (*e.g*. banking, energy, real estate) _____

_____

_____

_____

If so, when did the first investment activity occur? _____

Have the investment activities ended? _____

If so, what was the date of the last investment activity? _____

If not, have the investment activities increased or expanded since April 12, 2012? _____

Has the bidder adopted, publicized, or implemented a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran? _____

If so, provide the date of the adoption of the plan by the bidder and proof of the adopted resolution, if any and a copy of the formal plan. _____

In detail, state the reasons why the bidder cannot provide the Certification of Compliance with the Iran Divestment Act below (additional pages may be attached):

_____

_____

_____

_____

_____

_____

I, _____ being duly sworn, deposes and says that he/she is the _____ of

the_____ Corporation and the foregoing is true and accurate.

_____

SIGNED

SWORN to before me this

_____ day of _____, 20___

Notary Public: _____

**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

BID DESCRIPTION

CONTRACT NO. 4 – ELECTRICAL CONSTRUCTION

Work under this Contract may generally be described to include, but not be limited to the following:

> Procurement and general requirements; and all other work and related materials as indicated on the Contract Drawings, Multiple Contracts Summary, as specified herein, and as required for the complete and proper execution of the Work.

This outline is a general indication of the requirements of this Contract and is not intended to be all inclusive. The complete Contract Documents in their entirety, to include any and all addenda, form the basis of the responsibility of this Contract.

Each contractor is advised that the specification sections in Division 01 - General Requirements apply distinctly to each Prime Contractor and the balance of the technical specifications apply to each Contractor (as appropriate) for the accomplishment of his work.

All work of this contract shall be coordinated with other Prime Contractors involved in the project. All work shall additionally be coordinated with all other activities, construction, or others at each site throughout the progress of the work of this project.

The Contractor shall use all means possible and shall be responsible for coordinating the installation of all materials of this Contract with work of all other trades involved with this project. All work shall be done in strict accordance with the Contract Documents and in compliance with all applicable Local, State and Federal Codes.

Prior to the Bid Date of this project, the Contractor shall be completely responsible for visiting the project site to become completely familiar with the scope of this project.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and the respective employees, arising out of or in connection with the administration, evaluation or recommendation of any bid.

It shall be completely understood that the use of asbestos containing materials in this project is strictly forbidden and all materials are provided in accordance with the Federal Asbestos Hazard Emergency Response Act (AHERA), and the New York State Asbestos Safety Act (SASA).

In addition to those items in the Base Bid, the Contractor shall further sub-divide his bid proposal as described in the following bid items, alternates, and/or unit prices. The Contractor shall include in the Base Bid all of the work of this Contract not specifically described in a Bid Item or Alternative. The Owner reserves the right to accept any and/or all of the Bid Items and/or Alternates or any combination thereof and to waive any informalities or defects in the bid proposals either before or after opening.

BID ITEMS

**Allowances:** As described in Specification Section 01 2100 – Allowances

- Bid Item No. 1 – Field Directive Allowance

**Unit Prices:** None

**Alternates:** None

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**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

The Undersigned _____
Contractor

_____
Address Zip Code

hereby certifies that he/she has examined and fully comprehends the requirements and intent of the drawings and specifications as prepared by BCA Architects & Engineers, for **CONTRACT NO. 4 – ELECTRICAL CONSTRUCTION** to furnish all labor, materials, supplies, plant and equipment and other facilities to properly perform the work for the total:

**BASE BID**

*BASE BID SUM of*

_____ DOLLARS ($_____)

*Bid Item No. 1 – Field Directive Allowance*

Fifty-Eight Thousand DOLLARS ($ 58,000.00)

***TOTAL BASE BID (Base Bid and Bid Item No. 1 Included)***

_____ DOLLARS ($_____)

Receipt of the following Addenda is hereby acknowledged:

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

_____
(Name of Bidder)

Signed _____

Title _____

Street _____

City/State _____ Zip Code _____

Telephone _____

Fax _____

Cell Phone _____

Email _____

Date _____, 20__

## NON-COLLUSIVE BIDDING CERTIFICATE

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 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.

(Signed) _____

_____
Title

RESOLUTION - for corporate bidders only

RESOLVED that _____ be authorized to sign and submit the bid or proposal
(individual)
of this corporation for the following project

_____
(describe project)

and to include in such bid or proposal the certificate as to non-collusion required by Section 103-d of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____ corporation at a meeting of its Board of Directors held on the _____ day of _____, 20__.

SEAL OF CORPORATION)

_____
Secretary

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**Statement Concerning Authority to do Business**
**in the State of New York for non-New York State Companies**

**Please complete all requested information in both sections below.**

A certificate of authority is required of out of state companies if the company has property, employees or agents used in conducting its business activities within the state of New York. Generally, business activities are defined as having an office in the state, making sales or promotional calls within the state, delivering products or merchandise and/or making service calls within the state.

Companies conducting mail order activities with New York customers are not considered doing business within New York State if the company **has no property, employees, agents and/or representatives in or, traveling into the state.** _____ is such a mail order company, and as such, is not
(Fill in company name)
required to hold a Certificate of Authority.

Performance under the attached bid will not result in any action that would result in a requirement to obtain a Certificate as all commerce will be conducted by mail. It is the opinion of the legal counsel for this firm:

Name _____
Address _____ (Complete the information)
Address _____
Telephone _____

that this firm is not required to file an Authority to do Business in New York State as required by Section 1301 of the NYS Business Corporate Law.

==========

**Complete one of the following two acknowledgements in addition to above information.**

Individual Acknowledgment for Sole Proprietors or Partnerships

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me, the subscriber, personally appeared _____ to me personally known and known to me to be the same person described in and who executed the within Instrument, and he/she acknowledged to me that he/she executed the same.

_____
Notary Public

Corporate Acknowledgment for corporations or LLC's

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me personally known, who, being by me duly sworn did depose and say that he/she resides in _____ that he/she is the _____ of _____ the corporation described in, and which executed, the above Instrument; that he/she knows the seal of said corporation; that the seal affixed to said Instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he/she signed his/her name thereto by like order.

_____
Notary Public

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# FEDERAL LAW CERTIFICATION

I, _____ [insert name], the _____ [insert title] of _____ [name of company], _____ [Nine Digit DUNS Number] hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification. This includes any violations related to the Davis-Bacon Act, the federal prevailing wage statute, the Copeland Act and the Contract Hours and Safety Standards Act which covers hours of work and safety standards in federal public contracting.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

_____

(Date)

_____

(Signature)

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## STATEMENT OF SURETY'S INTENT

To: _____
(Owner)

We have reviewed the Bid of _____
(Contractor)

of _____
(Address)

for _____

_____
(Project)

Bids for which will be received on _____
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted, and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assume no liability to you or third parties if, for any reason, we do not execute the requisite bonds.

We are duly authorized to do business in the State of New York.

Attest:

_____

_____
(Surety's Authorized Signature)

**Attach Power of Attorney**

**(Corporate Seal, if any.
If no seal, write "No Seal"
across this place and sign.)**

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT

As a result of the Iran Divestment Act of 2012 (the "Act"), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective Aprils 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law) (the "Prohibited Entities List"). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, that to the best of its knowledge and belief, that each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the School District receive information that a Bidder/Contractor is in violation of the above-referenced certification, the School District will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the School District shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default. The School District reserves the right to reject any bid or request for assignment for a Bidder/Contractor that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any Bidder/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

I,_____, being duly sworn, deposes and says that he/she is the _____ of the_____Corporation and that neither the Bidder/ Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

_____

SIGNED

SWORN to before me this

_____ day of _____

20____

Notary Public: _____

**EITHER THIS FORM OR THE "DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT" FORM ON THE FOLLOWING PAGE MUST BE COMPLETED AND SUBMITTED WITH THE BID**

**DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT**

***Bidders shall complete this form if they cannot certify that the bidder /contractor or any proposed subcontractor is not identified on the Prohibited Entities List. The District reserves the right to undertake any investigation into the information provided herein or to request additional information from the bidder.***

Name of the Bidder: _____

Address of Bidder: _____

Has bidder been involved in investment activities in Iran? _____

Describe the type of activities including but not limited to the amounts and the nature of the investments (*e.g*. banking, energy, real estate) _____

_____

_____

_____

If so, when did the first investment activity occur? _____

Have the investment activities ended? _____

If so, what was the date of the last investment activity? _____

If not, have the investment activities increased or expanded since April 12, 2012? _____

Has the bidder adopted, publicized, or implemented a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran? _____

If so, provide the date of the adoption of the plan by the bidder and proof of the adopted resolution, if any and a copy of the formal plan. _____

In detail, state the reasons why the bidder cannot provide the Certification of Compliance with the Iran Divestment Act below (additional pages may be attached):

_____

_____

_____

_____

_____

_____

I, _____ being duly sworn, deposes and says that he/she is the _____ of

the_____ Corporation and the foregoing is true and accurate.

_____

SIGNED

SWORN to before me this

_____ day of _____, 20___

Notary Public: _____

**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

BID DESCRIPTION

CONTRACT NO. 5 – SITE CONSTRUCTION

Work under this Contract may generally be described to include, but not be limited to the following:

> Procurement and general requirements; and all other work and related materials as indicated on the Contract Drawings, Multiple Contracts Summary, as specified herein, and as required for the complete and proper execution of the Work.

This outline is a general indication of the requirements of this Contract and is not intended to be all inclusive. The complete Contract Documents in their entirety, to include any and all addenda, form the basis of the responsibility of this Contract.

Each contractor is advised that the specification sections in Division 01 - General Requirements apply distinctly to each Prime Contractor and the balance of the technical specifications apply to each Contractor (as appropriate) for the accomplishment of his work.

All work of this contract shall be coordinated with other Prime Contractors involved in the project. All work shall additionally be coordinated with all other activities, construction, or others at each site throughout the progress of the work of this project.

The Contractor shall use all means possible and shall be responsible for coordinating the installation of all materials of this Contract with work of all other trades involved with this project. All work shall be done in strict accordance with the Contract Documents and in compliance with all applicable Local, State and Federal Codes.

Prior to the Bid Date of this project, the Contractor shall be completely responsible for visiting the project site to become completely familiar with the scope of this project.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and the respective employees, arising out of or in connection with the administration, evaluation or recommendation of any bid.

It shall be completely understood that the use of asbestos containing materials in this project is strictly forbidden and all materials are provided in accordance with the Federal Asbestos Hazard Emergency Response Act (AHERA), and the New York State Asbestos Safety Act (SASA).

In addition to those items in the Base Bid, the Contractor shall further sub-divide his bid proposal as described in the following bid items and/or unit prices. The Contractor shall include in the Base Bid all of the work of this Contract not specifically described in a Bid Item or Alternative. The Owner reserves the right to accept any and/or all of the Bid Items and/or Alternates or any combination thereof and to waive any informalities or defects in the bid proposals either before or after opening.

BID ITEMS

**Allowances:** As described in Specification Section 01 2100 – Allowances

- Bid Item No. 1 – Field Directive Allowance
- Bid Item No. 2 – Unsuitable Soils (100 cubic yards)

**Unit Prices:** As described in Specification Section 01 2200 – Unit Prices

- Unit Price No. 1 – Unsuitable Soils

**Alternates:** None

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**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

The Undersigned _____
Contractor

_____
Address Zip Code

hereby certifies that he/she has examined and fully comprehends the requirements and intent of the drawings and specifications as prepared by BCA Architects & Engineers, for **CONTRACT NO. 5 – SITE CONSTRUCTION** to furnish all labor, materials, supplies, plant and equipment and other facilities to properly perform the work for the total:

**BASE BID**

*BASE BID SUM of*

_____ DOLLARS ($_____)

*Bid Item No. 1 – Field Directive Allowance:*

One-Hundred Twenty-Five Thousand DOLLARS ($ 125,000.00)

*Bid Item No. 2 – Unsuitable Soils Allowance*

Estimated Quantity 100 Cubic Yards @ = _____ DOLLARS ($_____)

**TOTAL BASE BID (Base Bid plus Bid Item No.'s 1 – 2 Included)**

_____ DOLLARS ($_____)

**UNIT PRICES**

*Unit Price Item No. 1 – Unsuitable Soils* $_____ / per cubic yard

**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

Receipt of the following Addenda is hereby acknowledged:

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

_____
(Name of Bidder)

Signed _____

Title _____

Street _____

City/State _____ Zip Code _____

Telephone _____

Fax _____

Cell Phone _____

Email _____

Date _____, 20__

## NON-COLLUSIVE BIDDING CERTIFICATE

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 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.

(Signed) _____

_____
Title

RESOLUTION - for corporate bidders only

RESOLVED that _____ be authorized to sign and submit the bid or proposal
(individual)
of this corporation for the following project

_____
(describe project)

and to include in such bid or proposal the certificate as to non-collusion required by Section 103-d of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____ corporation at a meeting of its Board of Directors held on the _____ day of _____, 20__.

SEAL OF CORPORATION)

_____
Secretary

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**Statement Concerning Authority to do Business**
**in the State of New York for non-New York State Companies**

**Please complete all requested information in both sections below.**

A certificate of authority is required of out of state companies if the company has property, employees or agents used in conducting its business activities within the state of New York. Generally, business activities are defined as having an office in the state, making sales or promotional calls within the state, delivering products or merchandise and/or making service calls within the state.

Companies conducting mail order activities with New York customers are not considered doing business within New York State if the company **has no property, employees, agents and/or representatives in or, traveling into the state.** _____ is such a mail order company, and as such, is not
(Fill in company name)
required to hold a Certificate of Authority.

Performance under the attached bid will not result in any action that would result in a requirement to obtain a Certificate as all commerce will be conducted by mail. It is the opinion of the legal counsel for this firm:

Name _____
Address _____ (Complete the information)
Address _____
Telephone _____

that this firm is not required to file an Authority to do Business in New York State as required by Section 1301 of the NYS Business Corporate Law.

==========

**Complete one of the following two acknowledgements in addition to above information.**

Individual Acknowledgment for Sole Proprietors or Partnerships

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me, the subscriber, personally appeared _____ to me personally known and known to me to be the same person described in and who executed the within Instrument, and he/she acknowledged to me that he/she executed the same.

_____
Notary Public

Corporate Acknowledgment for corporations or LLC's

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me personally known, who, being by me duly sworn did depose and say that he/she resides in _____ that he/she is the _____ of _____ the corporation described in, and which executed, the above Instrument; that he/she knows the seal of said corporation; that the seal affixed to said Instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he/she signed his/her name thereto by like order.

_____
Notary Public

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# FEDERAL LAW CERTIFICATION

I, _____ [insert name], the _____ [insert title] of _____ [name of company], _____ [Nine Digit DUNS Number] hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification. This includes any violations related to the Davis-Bacon Act, the federal prevailing wage statute, the Copeland Act and the Contract Hours and Safety Standards Act which covers hours of work and safety standards in federal public contracting.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

_____

(Date)

_____

(Signature)

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## STATEMENT OF SURETY'S INTENT

To: _____
(Owner)

We have reviewed the Bid of _____
(Contractor)

of _____
(Address)

for _____

_____
(Project)

Bids for which will be received on _____
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted, and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assume no liability to you or third parties if, for any reason, we do not execute the requisite bonds.

We are duly authorized to do business in the State of New York.

Attest:

_____

_____
(Surety's Authorized Signature)

**Attach Power of Attorney**

**(Corporate Seal, if any.
If no seal, write "No Seal"
across this place and sign.)**

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT

As a result of the Iran Divestment Act of 2012 (the "Act"), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective Aprils 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law) (the "Prohibited Entities List"). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, that to the best of its knowledge and belief, that each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the School District receive information that a Bidder/Contractor is in violation of the above-referenced certification, the School District will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the School District shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default. The School District reserves the right to reject any bid or request for assignment for a Bidder/Contractor that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any Bidder/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

I,_____, being duly sworn, deposes and says that he/she is the _____ of the_____Corporation and that neither the Bidder/ Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

_____

SIGNED

SWORN to before me this

_____ day of _____

20____

Notary Public: _____

**EITHER THIS FORM OR THE "DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT" FORM ON THE FOLLOWING PAGE MUST BE COMPLETED AND SUBMITTED WITH THE BID**

**DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT**

***Bidders shall complete this form if they cannot certify that the bidder /contractor or any proposed subcontractor is not identified on the Prohibited Entities List. The District reserves the right to undertake any investigation into the information provided herein or to request additional information from the bidder.***

Name of the Bidder: _____

Address of Bidder: _____

Has bidder been involved in investment activities in Iran? _____

Describe the type of activities including but not limited to the amounts and the nature of the investments (*e.g*. banking, energy, real estate) _____

_____

_____

_____

If so, when did the first investment activity occur? _____

Have the investment activities ended? _____

If so, what was the date of the last investment activity? _____

If not, have the investment activities increased or expanded since April 12, 2012? _____

Has the bidder adopted, publicized, or implemented a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran? _____

If so, provide the date of the adoption of the plan by the bidder and proof of the adopted resolution, if any and a copy of the formal plan. _____

In detail, state the reasons why the bidder cannot provide the Certification of Compliance with the Iran Divestment Act below (additional pages may be attached):

_____

_____

_____

_____

_____

_____

I, _____ being duly sworn, deposes and says that he/she is the _____ of

the_____ Corporation and the foregoing is true and accurate.

_____

SIGNED

SWORN to before me this

_____ day of _____, 20___

Notary Public: _____

**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

BID DESCRIPTION

CONTRACT NO. 7 – FOOD SERVICE

Work under this Contract may generally be described to include, but not be limited to the following:

> Procurement and general requirements; and all other work and related materials as indicated on the Contract Drawings, Multiple Contracts Summary, as specified herein, and as required for the complete and proper execution of the Work.

This outline is a general indication of the requirements of this Contract and is not intended to be all inclusive. The complete Contract Documents in their entirety, to include any and all addenda, form the basis of the responsibility of this Contract.

Each contractor is advised that the specification sections in Division 01 - General Requirements apply distinctly to each Prime Contractor and the balance of the technical specifications apply to each Contractor (as appropriate) for the accomplishment of his work.

All work of this contract shall be coordinated with other Prime Contractors involved in the project. All work shall additionally be coordinated with all other activities, construction, or others at each site throughout the progress of the work of this project.

The Contractor shall use all means possible and shall be responsible for coordinating the installation of all materials of this Contract with work of all other trades involved with this project. All work shall be done in strict accordance with the Contract Documents and in compliance with all applicable Local, State and Federal Codes.

Prior to the Bid Date of this project, the Contractor shall be completely responsible for visiting the project site to become completely familiar with the scope of this project.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and the respective employees, arising out of or in connection with the administration, evaluation or recommendation of any bid.

It shall be completely understood that the use of asbestos containing materials in this project is strictly forbidden and all materials are provided in accordance with the Federal Asbestos Hazard Emergency Response Act (AHERA), and the New York State Asbestos Safety Act (SASA).

In addition to those items in the Base Bid, the Contractor shall further sub-divide his bid proposal as described in the following bid items, alternates, and/or unit prices. The Contractor shall include in the Base Bid all of the work of this Contract not specifically described in a Bid Item or Alternative. The Owner reserves the right to accept any and/or all of the Bid Items and/or Alternates or any combination thereof and to waive any informalities or defects in the bid proposals either before or after opening.

BID ITEMS

**Allowances:** As described in Specification Section 01 2100 – Allowances

- Bid Item No. 1 – Field Directive Allowance

**Unit Prices:** None

**Alternates:** None

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**FORM OF PROPOSAL**
**Port Jervis City School District**
**Alterations to MS / HS & New Varsity**
**Baseball / Softball Dugouts / Storage**

The Undersigned _____
Contractor

_____
Address Zip Code

hereby certifies that he/she has examined and fully comprehends the requirements and intent of the drawings and specifications as prepared by BCA Architects & Engineers, for **CONTRACT NO. 7 – FOOD SERVICE** to furnish all labor, materials, supplies, plant and equipment and other facilities to properly perform the work for the total:

**BASE BID**

*BASE BID SUM of*

_____ DOLLARS ($_____)

*Bid Item No. 1 – Field Directive Allowance*

Ten Thousand DOLLARS ($ 10,000.00)

***TOTAL BASE BID (Base Bid and Bid Item No. 1 Included)***

_____ DOLLARS ($_____)

Receipt of the following Addenda is hereby acknowledged:

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

No. _____ dated _____ No. _____ dated _____

_____
(Name of Bidder)

Signed _____

Title _____

Street _____

City/State _____ Zip Code _____

Telephone _____

Fax _____

Cell Phone _____

Email _____

Date _____, 20__

## NON-COLLUSIVE BIDDING CERTIFICATE

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 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.

(Signed) _____

_____
Title

RESOLUTION - for corporate bidders only

RESOLVED that _____ be authorized to sign and submit the bid or proposal
(individual)
of this corporation for the following project

_____
(describe project)

and to include in such bid or proposal the certificate as to non-collusion required by Section 103-d of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____ corporation at a meeting of its Board of Directors held on the _____ day of _____, 20__.

SEAL OF CORPORATION)

_____
Secretary

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**Statement Concerning Authority to do Business**
**in the State of New York for non-New York State Companies**

**Please complete all requested information in both sections below.**

A certificate of authority is required of out of state companies if the company has property, employees or agents used in conducting its business activities within the state of New York. Generally, business activities are defined as having an office in the state, making sales or promotional calls within the state, delivering products or merchandise and/or making service calls within the state.

Companies conducting mail order activities with New York customers are not considered doing business within New York State if the company **has no property, employees, agents and/or representatives in or, traveling into the state.** _____ is such a mail order company, and as such, is not
(Fill in company name)
required to hold a Certificate of Authority.

Performance under the attached bid will not result in any action that would result in a requirement to obtain a Certificate as all commerce will be conducted by mail. It is the opinion of the legal counsel for this firm:

Name _____
Address _____ (Complete the information)
Address _____
Telephone _____

that this firm is not required to file an Authority to do Business in New York State as required by Section 1301 of the NYS Business Corporate Law.

==========

**Complete one of the following two acknowledgements in addition to above information.**

Individual Acknowledgment for Sole Proprietors or Partnerships

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me, the subscriber, personally appeared _____ to me personally known and known to me to be the same person described in and who executed the within Instrument, and he/she acknowledged to me that he/she executed the same.

_____
Notary Public

Corporate Acknowledgment for corporations or LLC's

_____
Signature

State of
County of ss.

On this _____ day of _____ two thousand and _____ before me personally known, who, being by me duly sworn did depose and say that he/she resides in _____ that he/she is the _____ of _____ the corporation described in, and which executed, the above Instrument; that he/she knows the seal of said corporation; that the seal affixed to said Instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he/she signed his/her name thereto by like order.

_____
Notary Public

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# FEDERAL LAW CERTIFICATION

I, _____ [insert name], the _____ [insert title] of _____ [name of company], _____ [Nine Digit DUNS Number] hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification. This includes any violations related to the Davis-Bacon Act, the federal prevailing wage statute, the Copeland Act and the Contract Hours and Safety Standards Act which covers hours of work and safety standards in federal public contracting.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

_____

(Date)

_____

(Signature)

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## STATEMENT OF SURETY'S INTENT

To: _____
(Owner)

We have reviewed the Bid of _____
(Contractor)

of _____
(Address)

for _____

_____
(Project)

Bids for which will be received on _____
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted, and the Contract awarded to him, it is our present intention to become surety on the performance bond and labor and material bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves and we assume no liability to you or third parties if, for any reason, we do not execute the requisite bonds.

We are duly authorized to do business in the State of New York.

Attest:

_____

_____
(Surety's Authorized Signature)

**Attach Power of Attorney**

**(Corporate Seal, if any.
If no seal, write "No Seal"
across this place and sign.)**

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE BID**

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## CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT

As a result of the Iran Divestment Act of 2012 (the "Act"), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective Aprils 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law) (the "Prohibited Entities List"). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, that to the best of its knowledge and belief, that each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the School District receive information that a Bidder/Contractor is in violation of the above-referenced certification, the School District will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the School District shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default. The School District reserves the right to reject any bid or request for assignment for a Bidder/Contractor that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any Bidder/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

I,_____, being duly sworn, deposes and says that he/she is the _____ of the_____Corporation and that neither the Bidder/ Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

_____

SIGNED

SWORN to before me this

_____ day of _____

20____

Notary Public: _____

**EITHER THIS FORM OR THE "DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT" FORM ON THE FOLLOWING PAGE MUST BE COMPLETED AND SUBMITTED WITH THE BID**

**DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT**

***Bidders shall complete this form if they cannot certify that the bidder /contractor or any proposed subcontractor is not identified on the Prohibited Entities List. The District reserves the right to undertake any investigation into the information provided herein or to request additional information from the bidder.***

Name of the Bidder: _____

Address of Bidder: _____

Has bidder been involved in investment activities in Iran? _____

Describe the type of activities including but not limited to the amounts and the nature of the investments (*e.g*. banking, energy, real estate) _____

_____

_____

_____

If so, when did the first investment activity occur? _____

Have the investment activities ended? _____

If so, what was the date of the last investment activity? _____

If not, have the investment activities increased or expanded since April 12, 2012? _____

Has the bidder adopted, publicized, or implemented a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran? _____

If so, provide the date of the adoption of the plan by the bidder and proof of the adopted resolution, if any and a copy of the formal plan. _____

In detail, state the reasons why the bidder cannot provide the Certification of Compliance with the Iran Divestment Act below (additional pages may be attached):

_____

_____

_____

_____

_____

_____

I, _____ being duly sworn, deposes and says that he/she is the _____ of

the_____ Corporation and the foregoing is true and accurate.

_____

SIGNED

SWORN to before me this

_____ day of _____, 20___

Notary Public: _____

DRAFT

# AIA® Document A132™ – 2019

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

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

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

«Port Jervis City School District»«»
«9 Thompson Street
Port Jervis, New York 12771»
«Telephone Number: (845) 858-3100»
«»

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

« »« »
« »
« »
« »

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

«Alterations to MS/HS & New Varsity Baseball/Softball Dugouts/Storage»
«Port Jervis City School District
9 Thompson Street
Port Jervis, New York 12771»
«
SED Control No.'s
44-18-00-05-0-012-040 Middle School (former Anna S. Kuhl ES) / High School
44-18-00-05-7-057-001 New Varsity Baseball Dugout/Storage
44-18-00-05-7-058-001 New Varsity Softball Dugout/Storage

Architect Project No.: 2019-011 PH2»

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

«the Palombo Group»«»
«195 Front Street
First Floor
Newburgh, New York 12550»
«Telephone Number: (845) 594-5328»
«»

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

«Bernier, Carr & Associates Engineers, Architects, and Land Surveyors, P.C.»«»

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

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

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

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«798 Cascadilla Street
Suite C
Ithaca, New York 14850»
«Telephone Number: (607) 319-4053»
«»

The Owner and Contractor agree as follows.

DRAFT

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**TABLE OF ARTICLES**


1 THE CONTRACT DOCUMENTS

2 THE WORK OF THIS CONTRACT

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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.)*

[ « X » ] 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.)*


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**User Notes:** (1281974871)

« »

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

| Portion of Work | Substantial Completion Date |
|---|---|
| | |

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

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

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

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

[ « X » ] By the following date: « »

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

| Portion of Work | Date to be substantially complete |
|---|---|
| | |

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

## ARTICLE 4 CONTRACT SUM

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

*(Check the appropriate box.)*

[ « 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.)*

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| 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) |
|---|---|---|
| | | |

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

« »

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

« »

## ARTICLE 5 PAYMENTS

### § 5.1 Progress Payments

**§ 5.1.1** Based upon Applications for Payment submitted to the 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 « 20th » day of a month, the Owner shall make payment of the amount certified to the Contractor not later than « thirty (30) » days after receiving the Application for Payment. 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 « thirty » ( « 30 » ) days 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:

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**User Notes:** (1281974871)

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

.1 That portion of the Contract Sum properly allocable to completed Work;

.2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and

.3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

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

.1 The aggregate of any amounts previously paid by the Owner;

.2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A232–2019;

.3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;

.4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A232–2019; and

.5 Retainage withheld pursuant to Section 5.1.7.

**§ 5.1.7 Retainage**

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

« 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.)*

« »

**§ 5.1.7.3** Except as set forth in this Section 5.1.7.3, when the Work of this Contract is substantially complete, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted when the Work of this Contract is substantially complete shall not include retainage as follows:
*(Insert any other conditions for release of retainage when the Work of this Contract is substantially complete, or upon Substantial Completion of the Work of all Contractors on the Project or portions thereof.)*

« »

**§ 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.

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**§ 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:

« »

**§ 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.)*

« » % « »

## 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.

[ « X » ] 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.

**§ 7.1.1.1** If the Contract is terminated for the Owner's convenience in accordance with Article 14 of AIA Document A232–2019, then the Owner shall pay the Contractor a termination fee as follows:
*(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner's convenience.)*

« »

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

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**§ 7.3 Suspension**

The Work may be suspended by the Owner as provided in Article 14 of AIA Document A232–2019; in such case, the Contract Sum and Contract Time shall be increased as provided in Article 14 of AIA Document A232–2019, except that the term "profit" shall be understood to mean the Contractor's Fee as described in Section 4.3.2 or 4.4.2, as applicable, of this Agreement.

## 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)*

«Dr. John Bell»
«9 Thompson Street
Port Jervis, New York 12771»
«Telephone Number: (845) 858-3100»
«»
«Mobile Number: (845) 741-8485»
«Email Address: JBell@pjschools.org»

**§ 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 Article 11 of AIA Document A232™–2019General Conditions of the Contract for Construction and elsewhere in the Contract Documents.

**§ 8.5.2** The Contractor shall provide bonds as set forth in AIA Document A232™–2019, General Conditions of the Contract for Construction, 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

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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 A232™–2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition

**.3** Drawings: See attached Index of Drawings

**.4** Specifications: See attached Table of Contents

**.5** 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.

**.6** 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.)*

« [INSERT CONTRACTORS NAME] Proposal dated [INSERT DATE] »

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

| **OWNER** *(Signature)* | **CONTRACTOR** *(Signature)* |
|---|---|
| «Deborah Lasch»«, BOE President» | « »« » |
| *(Printed name and title)* | *(Printed name and title)* |

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# 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)*

Alterations to MS/HS & New Varsity Baseball/Softball Dugouts/Storage
Port Jervis City School District
9 Thompson Street
Port Jervis, New York 12771

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

Savin Engineers
3 Campus Drive
Pleasantville, New York 10570

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

Port Jervis City School District
9 Thompson Street
Port Jervis, New York 12771

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

Bernier, Carr & Associates Engineers, Architects, and Land Surveyors, P.C.
798 Cascadilla Street
Suite C
Ithaca, New York 14850

**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 include the Notice to Bidders, Information to Bidders, Form of Proposals, General Conditions, Specifications, Drawings, Addenda issued prior to execution of the Contract, Agreement between Owner and Contractor("Agreement"), other Documents listed in the Agreement, and Modifications issued or negotiated after receipt of bids or execution of the Agreement, and when required by Governmental Agencies or Departments, appropriately inserted Certifications, Regulations, and Wage Rate Schedules.

**§ 1.1.2 The Contract.** The Contract Documents form the Contract for Construction. The Contract or Agreement 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 as a representative of the Owner, or (7) between any persons or entities other than the Owner and Contractor. The Construction Manager and Architect, as a representative of the Owner, shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of their duties.

Subcontractors shall assume the same obligations to the Contractors as the Contractor has to the Owner and the Architect under General Conditions AIA A232-2019 relationships and responsibilities of the Contractor to the Owner or Architect as defined in General Conditions AIA A232-2019 shall become those of the Subcontractor to the Contractor.

**§ 1.1.2.1** Where the term "Agreement", "Contract" or "Prime Contract" is used in the General Conditions, Supplementary General Conditions, and other Contract Documents, it shall mean the separate Owner-Contractor Agreement between the Owner and each individual Prime Contractor identified in Conditions of the Contract (General, Supplementary and other conditions)."

**§ 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


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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.

**§ 1.1.11 Miscellaneous Definitions:**

**.1** The term "Addendum/Addenda" shall mean Changes to the Contract Documents prior to the receipt of bids which are made part of the Agreement.

**.2** The term "Herein" shall mean the contents of the Contract Documents and/or the contents of the particular section where this term appears.

**.3** The term "Indicated" as used herein shall mean shown on the Drawings or described in the Contract Documents. Terms such as "Shown", "Noted", "Scheduled" and "Specified" have the same meaning as "As Indicated".

**.4** The term "Concealed" as used herein shall mean items hidden from sight in such locations as trenches, chases, shafts, furred spaces, walls, slabs, above ceilings and in crawl spaces or service tunnels.

**.5** The term "Exposed" as used herein shall mean not "concealed" as defined herein and the spaces behind normally closed doors such as interiors of cabinets.

**.6** The term "Product" as used herein shall include materials, systems and/or equipment.

**.7** The term "Furnish" as used herein shall mean furnish and deliver to the job site all products necessary that are connected with the Work including unloading, handling, transporting, unwrapping, and inspecting those products to be installed.

**.8** The term "Install" as used herein shall mean furnish all labor and perform all operations connected with assembly, erection, anchoring, installation of products or Work, curing, finishing, cleaning and similar operations including supplying all necessary tools, rigging and equipment to do the Work, and connect up, test, place in operation and service such products.

**.9** The term "Provide" as used herein shall mean furnish and install, without limitation, all labor, products, materials, equipment, transportation, services, etc., required to install, complete the Work, and/or to test and place in operation/service.

**.10** The term "Modifications" shall mean changes to the Contract Documents subsequent to the commencement of the work.

**.11** The term "Piping" as used herein shall mean pipe, rigid conduit, fittings, valves, hangers, and other accessories, which comprise a system.

**.12** The terms "proper", "satisfactory", "workmanlike" and words of similarly implied interpretation, judgment, or opinion, shall be understood to mean "in the opinion of the Architect".

**.13** As used herein, the terms "General Contractor", "GC" and "General Construction Contractor" have the same meaning.

**.14** As used herein, the terms "Mechanical Contractor" and "MC" shall mean the same thing.

**.15** As used herein, the terms "Plumbing Contractor" and "PC" shall mean the same thing.

**.16** As used herein, the terms "Electrical Contractor" and "EC" shall mean the same thing.

**.17** As used herein, the terms "Site Contractor" and "SC" shall mean the same thing.

**.18** As used herein, the terms "Roof Contractor" and "RC" shall mean the same thing.

**.19** As used herein, the terms "Asbestos Abatement Contractor" and "AAC" shall mean the same thing.

**.20** The term "project site" shall mean the space available to contractors at location of the project either exclusively or to be shared with other contractors for performance of Work.

**.21** The term "minimum requirements" shall mean indicated requirements are for a specific minimum acceptable level of quality/quantity, as recognized in the industry. Actual Work shall comply (within specified tolerances) or may exceed minimums within reasonable limits. Refer uncertainties to Architect before proceeding.

**.22** The term "basis of design" shall mean the material, product or manufacturer shown in the Contract Documents was selected to establish the minimum quality, performance and/or operation of the material or product.

**.23** The term "labeled" refers to classification by an approved Standards Agency.

**.24** As used herein, the term "Architect" shall also mean "Engineer" so duly licensed to "provide consulting services under a New York State License" and under Contract to provide professional services to the Owner."


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**.25** The term "Warranty" shall mean a formal promise (guarantee)in writing that the contractor shall repair or replace a faulty product, material, or installation within the prescribed warranty period after Substantial Completion.

**.26** The term "General Conditions" shall mean the General Conditions of the Construction Contract, Construction Manager as Advisor Edition (AIA Document AIA A232-2019 Edition).

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

**§ 1.2.1** The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results.

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

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

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

**§ 1.2.4** In the event of conflict or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

**.1** Contract (Agreement).
**.2** Modifications.
**.3** Addenda, with those of later date having precedence over those of earlier date.
**.4** Instructions to Bidders.
**.5** General Conditions of the Contract for Construction, Construction Manager as Advisor Edition.
**.6** Division 01 of the specifications.
**.7** Divisions 02 thru 49 of the specifications and drawings.
**.8** Other documents specifically enumerated in the Contract as part of the Contract Documents.

In the case of conflict or discrepancies between drawings and Divisions 02 thru 49 of the specifications or within or among the Contract Documents and not clarified by addendum, the Architect will determine which takes precedence.

**§ 1.2.5** Scaling Drawings for dimensions, if done, is done at the Contractor's own risk. All dimensions shown on the Drawings are subject to verification of actual dimensions by the Contractor. It is the responsibility of the Contractor to verify all dimensions in the field to insure proper and accurate fit of materials and items to be installed. Before ordering any materials or doing any Work, the Contractor and each Subcontractor shall verify all existing conditions and measurements. No extra charge or compensation will be allowed on account of differences between actual dimensions and the dimensions indicated on the Drawings. Any differences which may be found shall be submitted to the Construction Manager and Architect for resolution before proceeding with the Work."

**§ 1.2.6** Where items are specified by the use of a reference standard not bound in the specifications, the date of the reference standard shall be the latest edition as outlined in the Building Codes of New York State and/or except as specifically indicated otherwise.

**§ 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.


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**§ 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.

**§1.4.1** In the event of conflicts or discrepancies among the Contract Documents, interpretations will be as outlined under § 1.2.4.

**§ 1.4.2** In the event of inconsistencies within or between parts of the Contract Documents, or between the Contract Documents and applicable standards, codes and ordinances, the Contractor shall: (1) provide the better quality or greater quantity of Work, (2) comply with the more stringent requirement, or (3) either or both in accordance with the Architect's interpretation. The terms and conditions of this § 1.4.2, however, shall not relieve the Contractor of any of the obligations set forth in § 3.2 and § 3.7.

**§1.4.2.1** On the Drawings, given dimensions shall take precedence over scaled measurements and large-scale drawings over small-scale drawings. Scaling Drawings for dimensions, if done, is done at the Contractor's own risk.

**§1.4.2.2** Before ordering any materials or doing any Work, the Contractor and each Subcontractor shall verify measurements at the project site and shall be responsible for the correctness of such measurements. No extra charge or compensation will be allowed on account of differences between actual dimensions and the dimensions indicated on the Drawings. Any difference, which may be found, shall be submitted to the Architect for resolution before proceeding with the Work.

**§1.4.2.3** If a minor change in the Work is found necessary due to actual field conditions, the Contractor shall submit detailed drawings of such departure for review by the Architect before initiating the change.

**§ 1.4.3** The terms "knowledge", "recognize" and "discover", their respective derivatives and similar terms in the Contract Documents, as used in reference to the Contractor, shall be interpreted to mean that which the Contractor knows (or should know), recognizes (or should recognize) and discovers (or should discover) in exercising the care, skill and diligence required by the Contract Documents. The expression "reasonably inferable" and similar terms in the Contract Documents shall be interpreted to mean reasonably inferable by a Contractor familiar with the Project and exercising the care, skill and diligence required of the Contractor by the Contract Documents.

**§ 1.4.4** The phrase "persistently fails" and other similar expressions, as used in reference to the Contractor, shall be interpreted to mean any combination of acts or omissions, which causes the Owner or the Architect to reasonably conclude that the Contractor will not complete the Work within the Contract Time, for the Contract Sum or in substantial compliance with the requirements of the Contract Documents.

**§ 1.4.5** In the event of inconsistencies within or between parts of the Contract Documents, or between the Contract Documents and applicable standards, codes and ordinances, the Architect shall be the sole and final interpreter and will issue a written decision to the Owner and the Contractor within a reasonable time of written notification. The Architect's decision shall be conclusive and final.

**§ 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.


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**§ 1.6 Notice**

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

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

**§ 1.7 Digital Data Use and Transmission**

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

**§ 1.8 Building Information Models Use and Reliance**

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

**ARTICLE 2 OWNER**

**§ 2.1 General**

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

**§ 2.1.2** The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights.

**§ 2.2 Evidence of the Owner's Financial Arrangements**

**§ 2.2.1** Prior to commencement of the Work, and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

*(Paragraph deleted)*

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

*(Paragraph deleted)*

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

**§ 2.3.1** The Owner shall make available for inspection, upon request, that field survey or testing information of existing conditions, which is known to be available, and which is held by the Owner at their offices. Such records are not Contract Documents and the Owner makes no representation as to their accuracy or completeness.


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

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

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

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

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

**§ 2.3.7** Unless otherwise provided in the Contract Documents, the Owner shall furnish to each Prime Contractor the following:

**.1** Copies for Construction: The Prime Contractors will each be furnished without charge up to two (2) sets of Contract Drawings, Project Manuals and Bid Addendums for use during construction for their own use and the use of their Subcontractors.

**.2** Owner shall furnish additional sets upon a Contractor's written request. Such additional sets will be provided at the cost of printing, postage and handling. Partial sets will NOT be provided.

**.3** Subcontractors and other entities desiring copies of Drawings and other contract Documents shall obtain them from the respective Prime Contractor.

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

**§ 2.3.9** The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, the Contractors' means, methods, techniques, sequences, or procedures of construction or the safety precautions and programs incident thereto, or for any failure of the Contractor to comply with laws or regulations applicable to the furnishing or performance of the Work. Owner will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

### § 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 three-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


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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.

**§ 2.5.1** In the event Contractor fails, refuses or neglects to perform closeout obligations, including without limitation performance of incomplete items as attached to the Certificate of Substantial Completion, within forty-five (45) days following the date of Substantial Completion or time frame mutually agreed upon between Owner and Prime Contractor, the Owner may, without further notice (except to inform the Contractor its attempt to cure is inadequate) and without prejudice to other remedies the Owner may have, correct such deficiencies. In such case, an appropriate Change Order shall be issued deducting from Payments then or thereafter due to Contractor the cost of correcting such deficiencies. Contractor shall be liable to the Owner for any additional costs, including without limitation, those charged by Architect, Attorneys, or others attributable to such failure, refusal, or neglect.

### § 2.6 Owner's Rights for Use of Premises

**§ 2.6.1** Whether Work of various Contractors is or is not partially or fully completed, the premises (site and buildings) are the property of the Owner who shall have certain rights and privileges in connection with use of same.

**§ 2.6.2** In such event, Contractor whose unfinished Work is performed subsequently shall be responsible for the prevention of any damage to such Owner's installation. Such use or occupancy by the Owner shall in no instance constitute acceptance of any of the Work.

## 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.

**§ 3.1.1.1** Where the words "Contractor", "Prime Contractor", or any reference to "each Contractor" occurs in the Contract Documents, they shall mean the person, firms or organization having a Contract for the Work as set forth in the Agreement.

**§ 3.1.1.2** The Contractor represents to the Owner that it possesses the skill, experience, and resources to perform the Work competently and diligently in an orderly and safe fashion and in accordance with the anticipated milestone and/or completion date(s) as applicable.

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

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

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

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

**§ 3.2.2** Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.5, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Construction Manager and Architect any errors, inconsistencies or omissions discovered by or


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made known to the Contractor as a request for information submitted to the Construction Manager in such form as the Construction Manager and Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

**§ 3.2.2.1** The Contractor shall promptly notify the Construction Manager and Architect, in writing, of any inconsistencies or errors to provide the Architect ample time for observation, investigation, detail drawings, etc.

**§ 3.2.2.2** All Contactors submitting bid proposals shall be presumed to have examined the site to consider fully all conditions, which may have a bearing on the Work, and to have accounted for these conditions in their bid proposals.

**§ 3.2.2.3** When required, off-site storage is the responsibility of the Contractor.

**§ 3.2.2.4** The exactness of grades, elevations, dimensions, or locations indicated on the Drawings of Work installed by others is not guaranteed by the Construction Manager, Architect, or the Owner.

**§ 3.2.2.5** Except as to any reported errors, inconsistencies and to concealed or unknown conditions referred to in § 3.7.4, by executing the Agreement, the Contractor represents the following:

**.1** The Contract Documents are sufficiently complete and detailed for the Contractor to (1) perform the Work required to produce the results intended by the Contract Documents and (2) comply with all the requirements of the Contract Documents.

**.2** The Work required by the Contract Documents, including, without limitations, all construction details, construction means, methods, procedure and techniques necessary to perform the Work, use of materials, selection of equipment and requirements of product manufacturers are consistent with: (1) good and sound practices within the construction industry; (2) generally prevailing and accepted industry standards applicable to Work; (3) requirements of any warranties applicable to the Work; and (4) all laws, ordinances, regulations, rules and orders which bear upon the Contractor's performance of the Work.

**§ 3.2.2.6** The Contractor shall satisfy itself as to the accuracy of all grades, elevations, dimensions, and locations indicated on the Drawings. Where the Work of this Contract connects or interfaces with existing or other Work, Contractor shall verify at the site all conditions of such existing or other Work. Any errors due to the Contractor's failure to verify such information shall be promptly remedied by the Contractor at no additional cost to the Owner.

**§ 3.2.2.7** Before ordering any materials or doing any Work, the Contractor and each Subcontractor shall verify all existing conditions and measurements. Any differences, which may be found, between actual measurements and dimensions indicated on the Drawings shall be submitted to the Architect for resolution before proceeding with the Work. No extra compensation will be allowed for such discrepancies.

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

*(Paragraph deleted)*

**§ 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


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or procedures may not be safe, the Contractor shall give timely notice to the Owner, the Construction Manager, and the Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. The Construction Manager shall review the proposed alternative for sequencing, constructability, and coordination impacts on the other Contractors. Unless the Architect or the Construction Manager objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

**§ 3.3.1.1** Laying out the work:

**.1** Each Contractor shall carefully lay out its Work in accordance with the Contract Documents and shall coordinate its Work with existing and new Work and it shall verify all lines and levels indicated in the Contract Documents that affect its Work.

**.2** Adjustments required to suit field conditions shall be made only after the Construction Manager's and Architect's review. Each Contractor shall be responsible for the accuracy of layout and shall correct at its own expense any Work that his forces have laid out incorrectly.

**.3** Where equipment lines or piping and/or conduit are shown diagrammatically, the Contractor shall be responsible for the coordination and orderly arrangement of the various lines of piping and conduit included in the Work of its Contract. Contractor shall coordinate its work and prevent all interferences between equipment, lines of piping, architectural features, and avoid any unsightly arrangements in the exposed areas.

**§ 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 Shutdowns:** Such Work as connections to existing sewers, plumbing, heating, and electric systems, shall be done at a time agreeable to the Owner and Construction Manager and shall be determined and agreed to well in advance of the actual doing of such Work so as to interfere as little as possible with the operation and use of existing facilities. Shutdowns must be coordinated through the Construction Manager 48 hours prior to shut down. The continued uninterrupted operation of all facilities is essential. If any existing facilities must be interrupted, the Contractor for the Work shall provide all necessary temporary facilities and connections necessary for maintaining existing facilities. No mechanical, heating, plumbing, sprinkler, or electric services shall be interrupted at any time, except as approved in advance by the Owner. All communication systems must be maintained without interruption. As much related work as possible shall be performed prior to shut-downs, so as to minimize the period of shut-down. All material and manpower to do the work involved shall be at the job prior to interruption of services.

**§ 3.3.5** If the Work involves a School facility, the Contractor represents that it is familiar with and shall adhere to the "Uniform Standards for School Construction and Maintenance Projects" set forth at 8 New York Code of Rules and Regulations §155.5 (8 NYCRR 155).

### § 3.4 Labor and Materials

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

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

**§ 3.4.3** The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.


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**§ 3.4.4 Equivalent Products**: Except as otherwise specified, whenever a material, article or piece of equipment is identified on the Drawings or in the Specifications by reference to manufacturer's or vendors' names, catalog numbers, or the like, it is so identified for the purpose of establishing a standard, and any material, article, or piece of equipment of other manufacturers or vendors which will perform adequately the duties imposed by the general design may be considered equally acceptable provided the material, article, or piece of equipment so proposed is, in the opinion of the Architect, of equal substance, appearance, size, function and performance. Such proposed product shall not be purchased or installed until approved by the Architect.

**.1** The Owner and the Architect will consider a formal request for the substitution of a product in place of the one specified only under the conditions set forth in the General Requirements (Contract, & General Conditions) on "EQUIVALENCY", of the Specifications) for each proposed substitution.

**.2** The Architect will be allowed ten (10) business days to evaluate each proposed substitution. The Architect will be the sole judge of equivalence, and no substitution shall be ordered, installed or utilized without the Architect's review process having been completed and the product accepted by written notification.

**.3** Owner may require Contractor to furnish at the Contractor's expense a special performance warranty or other surety with respect to any substitution.

**.4** The Architect will record time required by the Architect and the Architect's consultants in evaluating substitutions proposed by the Contractor and in making changes in the Contract Documents occasioned thereby. Whether or not the Architect accepts a proposed substitution, Contractor shall reimburse the Owner for the charges of the Architect and the Architect's Consultants for evaluating each proposed substitution. In the event Owner is not obligated to pay Architect for such costs incurred by the Architect in evaluating proposed Substitutions as Additional Services. Contractor shall pay Architect's additional cost for such evaluation directly to Architect as a third-party beneficiary under this Contract.

**.5** Full explanation of the proposed substitution and submittal of all supporting data including technical information, catalog cuts, warranties, test results, installation instructions, operating procedures, and other like information necessary for a complete evaluation of the substitution.

**.6** Reasons the substitution is advantageous and/or necessary, including the benefits to the Owner and Work in the event substitution is acceptable.

**.7** The adjustment, if any, in the Contract Sum in the event the substitution is acceptable.

**.8** The adjustment, if any, in the time of completion of the contract and the construction schedule in the event the submission is acceptable.

**.9** Contractor shall demonstrate that the proposed substitution conforms and meets all the requirements of the pertinent Specifications and the Drawings; and the Contractor accepts the warranty and correction obligations in connection with the proposed substitution as if originally specified by the Architect. Proposals for substitutions shall be submitted to the Architect. Architect will review and make an informed decisions on proposed substitution within ten (10) business days.

**.10** Substitutions and alternates may be rejected with or without written explanation.

**.11** No substitute material shall be purchased or installed by the Contractor without the Architect's written approval. Material that, in the Architect's opinion, is inferior to that specified or is unsuited for the intended use will be rejected. The Architect's decision regarding acceptance of equals shall be final. The risk of whether a proposed substitution will be accepted is borne by the Contractor. No requests for substitution will be considered unless the Architect determines that such substitution is in the best interest of the Owner under the conditions set forth in the Contract Documents.

**.12** By making requests for substitutions the Contractor:

- **a.** Represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;
- **b.** Represents that the Contractor will provide the same warranty for the substitution that the Contractor would provide for the specified product;
- **c.** Certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent;
- **d.** Will coordinate the installation of the accepted substitution, making such changes as may be required for the Work to be complete in all respects; and,
- **e.** Will reimburse Owner for additional costs from claims by other Prime Contractors resulting from incorporation of the requested substitution.


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**.13** If the Project involves Public Work subject to N.Y. General Municipal Law §103, whenever a material, article, device, piece of equipment or type of construction is identified on the Drawings or in the Specifications by reference to manufacturers' or vendors' names, trade names, catalog numbers, or similar specific information, it is so identified for the purpose of establishing a standard of quality, and such identification shall not be construed as limiting competition. In such event, any material, article, device, piece of equipment or type of construction of other manufacturers or vendors that will perform the duties imposed by the general design will be considered equally acceptable provided the material, article, device, piece of equipment or type of construction so proposed is completely described in submittals as set forth herein and is, in the opinion of the Architect, of equal substance, appearance, and function.

**.14** The burden of proof to show equivalency or equal quality shall be that of the Contractor. Submissions for this purpose shall follow the format for Submittals. Submissions shall be complete, informative & address all data required in the base bid specification in such a manner that the Architect can, without unusual effort or exhaustive research, review and make a judgment as to its equivalency. Excessive or unusual effort required of the Architect by the Contractor to review, research and qualify items proposed as equivalents shall be charged to the Contractor at the current billing rate of the Architect.

**.15** Proposed equivalents or substitutions will not be considered unless requested as set forth herein. Mere express or implied indication of equivalents or substitutions will not be considered without full compliance these requirements.

**.16** The Contractor shall indicate the kind, type, brand or manufacturer that is to be substituted for the specified item. The Contractor will submit information describing in specific detail the differences in quality, performance, cost and time between the substitution and the item that was specified. This information shall include notification of possible changes to the Work or to work of other contracts."

**§ 3.4.5** A shortage of labor in the industry shall not be accepted as an excuse for not properly manning the project at each site.

**§ 3.4.6** Contractor shall be responsible for the care and protection of all equipment and materials for his work of this project, including equipment and material furnished by the Owner.

**§ 3.4.7** Contractor warrants that it has good title to all materials used in the Work of this Contract. No materials or supplies shall be furnished by Contractor or any of its Subcontractors that are subject to any chattel mortgage, conditional sale or other agreement by which an interest is retained by the seller.

**§ 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.

**§ 3.5.1.1** Neither final payment, nor provision in Contract Documents, nor partial or entire occupancy of premises by Owner shall constitute an acceptance of Work not done in accordance with Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

**§ 3.5.1.2** In emergencies occurring during the warantee period, the Owner may correct any defect immediately and charge the cost to the Contractor. The Owner shall at once notify the Contactor, who may take over the Work and make any corrections remaining after his forces arrive at the Work. Any repair work not started within seven (7) days following notice to the Contractor of any defect shall be considered an emergency.

**§ 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.


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**§ 3.6 Taxes**

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

**§ 3.6.1** The OWNER is exempt from the payment of Sales and Compensating Use Taxes of the State of New York and of cities and counties, on all materials, equipment and supplies to be sold to the OWNER pursuant to this Contract. The exemption does not, however, apply to tools, machinery, equipment, or other property leased by or to the contractor or to a Sub-Contractor and the Contractor and its Sub-Contractor. Also exempt from such taxes are purchases by the CONTRACTOR and its subcontractors of materials, equipment and supplies to be sold to the OWNER pursuant to its Contract, including tangible personal property to be incorporated in any structure, building or other real property forming part of the Project." The exemption does not, however, apply to tools, machinery, equipment, or other property leased by or to the CONTRACTOR or a Sub-Contractor and the CONTRACTOR and its Sub-Contractor shall be responsible for any 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 into the project.

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

**§ 3.7.1** Each Contractor shall secure and pay for all required permits, governmental fees, licenses, certificates of inspection, of occupancy, of Underwriters, and of all other required certificates for the Work, necessary for the proper execution and completion of the Work, which are customarily secured after execution of the Contract and which are legally required at the time the bids are received. Each Contractor shall be responsible for complying with any and all requirements specified with each Permit.

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

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

**§ 3.7.4 Concealed or Unknown Conditions.** If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner, Construction Manager, and the Architect before conditions are disturbed or affected work is performed and in no event later than 7 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.


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**§ 3.8 Allowances**

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

**§ 3.8.2** Unless otherwise provided in the Contract Documents:

**.1** allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

**.2** Contractor's costs for overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and

**.3** whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

**.4** Value of allowances shall also include:

- All costs for plant, equipment and labor for unloading, handling and storage at the site;
- Any costs for protection;
- All costs for associated demolition work;
- Costs for removal and off-site disposal of demolished materials;
- Cost for labor, materials and equipment for installation and finishing, except where labor is specified not to be a part of the allowance.
- Other expenses required to complete the installation.

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

**§ 3.9 Superintendent**

**§ 3.9.1** Prior to starting the work, the Contractor shall designate the project manager, superintendent and other key individuals who shall be assigned to the project through and including final completion. Such designation shall be in writing and provided to the Architect, Construction Manager, and Owner. The Superintendent shall be in attendance at the project site throughout the work, including completion of the punch list. The Superintendent shall, during the performance of the work, remain on the project site not less than eight hours per day, five days per week, until termination of the contract, unless the job is suspended or work is stopped by the Construction Manager or Owner. The Superintendent shall not be employed or used on any other project during the course of the work. The Superintendent shall be approved by the Owner in its sole discretion. Said representative shall be qualified in the type of work to be undertaken and shall not be changed during the course of construction without the prior written consent of the Owner. Should an approved representative thereafter leave the Contractor's employ, Contractor shall promptly designate a new representative. Owner shall have the right, at any time, to direct a change in the Contractor's representatives if their performance is unsatisfactory. In the event of such demand, Contractor shall, within seven days after notification thereof, replace said individual(s) with an individual satisfactory to Owner, in Owner's sole discretion. If said replacement is disapproved, the Contract may, at Owner's option be terminated for cause. The Superintendent shall represent the Contractor, and communications given to the Superintendent shall be binding as if given to the Contractor. The Owner shall have no obligation to direct or monitor the Contractor's employees. All references herein to the Superintendent shall be taken to mean the Contractor's Superintending staff.

**§ 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.

**§ 3.9.4** The Contractor shall not reduce or terminate supervision of the Work.


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**§ 3.9.5** If, for any reason, the Contractor takes an action resulting in any of the changes noted in **§ 3.9**, which negatively affects the projects progress or quality, or resulting in additional work by the Owner or their agents, the Owner has the right to charge the Contractor all costs associated with these efforts including the costs of legal, Construction Management Services, and Architectural services. The Owner shall notify the Contractor in writing of their intent to back charge as a result of lack of supervision.

**§ 3.9.6** The Contractor shall coordinate and supervise the work performed by subcontractors so that the work is carried out without conflict between trades and so that no trade, at any time, causes delay to the general progress of the work. The Contractor and all subcontractors shall afford each trade reasonable opportunity for the installation of their work and the storage of their materials.

**§ 3.9.7** It is required of any and all supervisory personnel proposed for use by any Contractor that said personnel be versed in the English language or, said contractor shall furnish a full-time on-site interpreter to facilitate communications between the Owner's representative and the Architect.

**§ 3.9.8** The Contractor shall employ a competent senior superintendent. Such superintendent may not be replaced during the duration of the Project including the completion of Punch List, unless approved by Architect and the Owner's Representative.

**§ 3.9.8** Contractor to provide resume of Contractor's Superintendent to the Owner, Architect and Owner's Representative.

**§ 3.9.10** Contractor shall furnish the Owner's Representative in writing the names, addresses and telephone numbers of the members of his organization who can be contacted in the event of an off-hours emergency at the building site.

**§ 3.9.11** The Contractor shall attend progress meetings with the Owner's Representative and such other persons the Owner may wish to have present. The progress meetings shall include all key personnel on the job, including the Contractor and Sub-contractors, or other persons in charge of various phases of the work.

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

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

**§ 3.10.1.1** Submission of an accepted Construction Schedule shall be a prerequisite to initial payment. If the schedule is not submitted by said dates the Contractor has acknowledged his approving the Owner to complete a schedule for the Contractor. Such schedule will become the product and ownership of the Contractor and the Contractor will be back-charged all costs pertaining to the service of producing the schedule. The Contractor shall provide revised schedules at appropriate intervals as required by the Conditions of the Work and Project.

**§ 3.10.1.2** Revisions to schedule shall be approved by the Owner.

**§ 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.


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

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

**§ 3.10.5** All Construction Schedules are the product and ownership of the Contractor.

**§ 3.10.6** The Construction Schedule.

**§ 3.10.6.1** The construction schedule shall be in a detailed precedence style critical path method (CPM) or Primavera-type format satisfactory to the Owner, the Owner's Representative and the Architect which shall also:

(a) provide a graphic representation of all activities and events that will occur during performance of the work including the submission, review and approval of all submittals (i.e. Shop Drawings, etc.) required by the Contract Documents;

(b) identify with each phase of construction and occupancy; and

(c) set forth dates that are critical in insuring the timely and orderly completion of the Work in accordance with the requirements of the Contract Documents (hereinafter referred to as the Milestone dates).

**§ 3.10.6.2** Upon review and acceptance by the Owner and the Construction Manager of the Milestone Dates, the construction schedule shall be deemed part of the Contract Documents and attached to the agreement as Exhibit "A". If not accepted by the Owner and the Construction Manager, the construction schedule shall be promptly revised by the Contractor in accordance with the recommendations of the Owner and the Construction Manager and re-submitted for acceptance.

**§ 3.10.6.3** The Contractor shall monitor the progress of the work for conformance with the requirements of the construction schedule and shall promptly advise the Owner of any delays or potential delays.
**§ 3.10.6.4** The accepted construction schedule shall be dated to reflect actual conditions (sometimes referred to as progress reports) as set forth in Paragraph 3.10 or if requested by either the Owner or the Architect. In the event any progress report indicates any delays, the Contractor shall propose an affirmative plan to correct the delay, including overtime and/or additional labor, if necessary. In no event shall any progress report constitute an adjustment in the contract time, any Milestone Date or the Contract Sum unless any such adjustment is agreed to by the Owner and authorized pursuant to Change Order.

**§ 3.10.6.5** The construction schedule shall be updated at least once a month or more frequently if requested. The Contractor shall furnish the Owner, Owner's Representative and Architect with sufficient copies of the original schedules and all updated schedules as the Owner, Owner's Representative, or Architect may require.

**§ 3.10.6.6** In the event the Owner determines that the performance of the Work, as of a Milestone Date, has not progressed or reached the level of completion required by the Contract Documents, the Owner shall have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including, without limitation, (1) working additional shifts or overtime, (2) supplying additional manpower, equipment, and facilities and (3) other similar measures (hereinafter referred to collectively as Extraordinary Measures). Such Extraordinary Measures shall continue until the progress of the Work complies with the stage of completion required by the Contract Documents. The Owner's right to require Extraordinary Measures is solely for the purpose of ensuring the Contractor's compliance with the construction schedule and shall not be construed as or deemed to constitute an acceleration directive by the Owner.

**§ 3.10.6.6.1** The Contractor shall not be entitled to an adjustment in the Contract Sum in connection with Extraordinary Measures required by the Owner under or pursuant to this Paragraph 3.10.5.

**§ 3.10.6.6.2** The Owner may exercise the rights furnished the Owner under or pursuant to this Paragraph 3.10.4 as


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frequently as the Owner deems necessary to ensure that the Contractor's performance of the Work will comply with any Milestone Date or completion date set forth in the Contract Documents.

**§ 3.10.6.6.3** The Owner reserves the right to withhold payment until such time as the Contractor submits a daily schedule showing work to be again on schedule with the Construction Schedule and performing per revised schedule, without additional cost to the Owner.

**§ 3.10.7** The Owner shall have the right to direct a postponement or rescheduling of any date or time for the performance of any part of the Work that may interfere with the operation of the owner's premises or any tenants or invitee thereof. The Contractor shall, upon the Owner's request, reschedule any portion of the Work affecting operation of the premises during hours when the premises are not in operation. Any postponement, rescheduling or performance of the Work under this Paragraph 3.10.5 may be grounds for an extension of the Contract Time, if permitted under Paragraph 8.3.1 if: (1) the performance of the Work was properly scheduled by the Contractor in compliance with the requirements of the contract Documents and (2) such rescheduling or postponement is required for the convenience of the Owner.

**§ 3.10.8** The various Prime Contractors shall be responsible for the coordination and orderly arrangement of the various equipment, lines and piping and architectural features, and to avoid any unsightly arrangements in exposed work.

**§ 3.10.9** All Construction Schedules are the product and ownership of the Contractor.

**§ 3.10.10** Revisions to the schedule shall be approved by the Owner and Construction Manager.

**§ 3.10.11** Contractor shall provide all required labor and material to proceed with work as per the Construction Schedule and shall work continuously and expeditiously through project completion.

### § 3.11 Documents and Samples at the Site

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

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

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

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

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

**§ 3.12.3.1** The Contractor shall submit for review to the Architect through the Construction Manager samples of materials listed under each section of the specifications. Samples shall be properly labeled for identification, consisting of the following information: job titles, sample number, submission number, and label large enough to receive Architect's stamps.

**§ 3.12.3.2** The Contractor shall not commence work under sections of the specifications until the Architect's approval in writing is obtained for all listed samples.

**§ 3.12.3.3** The Contractor shall not construe approval of advance samples as total guarantee of acceptance of materials. Materials will be subjected to field inspections, from time to time, as work progresses.


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**§ 3.12.3.4** Samples of specific manufactured products shall be accompanied with appropriate manufacturer's literature at time of submission.

**§ 3.12.4** Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect and Construction Manager is subject to the limitations of Sections 4.2.10 through 4.2.12. Informational submittals upon which the Construction Manager and Architect are not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Construction Manager or Architect without action.

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

**§ 3.12.5.1** No extension of time will be granted to the Contractor because of failure to have shop drawings, product data, and samples submitted in ample time to allow for review by the Construction Manager, Architect or their Consultants.

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

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

**§ 3.12.7.1** If the Contractor elects to release work without approvals, same shall be at its own risk and expense.

**§ 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


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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.

**§ 3.12.10.2.1** If it is the position of the Contractor, or his licensed design professional, that the Owner and Architect have not provided all performance and design criteria, the Contractor shall request additional criteria in writing before proceeding with the professional services described in § 3.12.10. Proceeding with the professional services shall be evidence that the Owner and Architect have provided all necessary performance and design criteria.

**§ 3.12.11** All shop drawings for any architectural, structural, mechanical or electrical work must be submitted to the Architect through the Construction Manager. The Contractor represents and warrants that all shop drawings shall be prepared by persons and entities possessing expertise and experience in the trade for which the shop drawing is prepared and, if required by the Architect or applicable law, by a licensed engineer.

**§ 3.12.11.1** Each shop drawing shall contain a title block with provisions for the following:
(1) Number and Title of Drawing.
(2) Date of Drawing or Revision.
(3) Name of project.
(4) Name of Contractor or Sub-contractor submitting Drawing.
(5) Specification Section Title and Number.
(6) Space for Architect's Stamp and Received Stamps.

**§ 3.12.11.2** Each shop drawing shall have listed on it all Contract Reference Drawing Numbers plus Shop Drawing Numbers on related work by other Sub-contractors if available.

**§ 3.12.11.3** Each shop drawing submission shall have indicated on the drawing under the submission number (whether first, second, third, etc.).

**§ 3.12.11.4** Shop drawings for work of one trade shall be checked by Sub-contractors of related trades, and shall have received their stamp of approval before being submitted to the Architect.

**§ 3.12.11.5** Each shop drawing submission after the first submission shall be clear of all previous stamps.

**§ 3.12.12** Contractor shall communicate and supply Shop Drawings to other Contractors to ensure proper coordination.

**§ 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.

**§ 3.13.1.1** Use of site and building:

**.1** Each Prime Contractor shall cooperate with the Owner in making available for the Owner's use, areas of the completed or partially completed building(s) or site as provided for in Article 9, Paragraph 9.9.


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The Owner shall have the right to take possession of and to use any completed or partially completed portions of the building or site even though the time of completing the entire Work or such portion of the Work may not have expired. Such use shall not constitute acceptance thereof. Such occupancy shall in no way abrogate any specified warranties or guaranties for materials, workmanship or operation of equipment pertaining to the occupied portions.

**.2** Each Prime Contractor shall cooperate with the Owner in making available for the Owner's use such building services as heating, ventilating, cooling, water, lighting and telephone for the space or spaces to be occupied, and if the equipment required to furnish such services is not entirely completed at the time the Owner desires to occupy the aforesaid space or spaces, the Contractor shall make every reasonable effort to complete such part of his Work as soon as possible to the extent that the necessary equipment can be put into operation and use.

**.3** Mutually acceptable arrangements shall be made as to the warranties or guaranties affecting all Work associated therewith.

**.4** Such occupancy or use shall not commence prior to a time mutually agreed to by the Owner and Contractor and to which the insurance company or companies providing the property insurance have consented by endorsement to the policy or policies. (See 11.3.1.5) Such occupancy shall be documented with an appropriately executed Certificate of Substantial Completion.

**.5** See Article 2, Paragraph 2.5 for special situations.

**§ 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. Only materials and equipment which are to be used directly in the Work shall be brought to and stored on the Project site by the Contractor. After equipment is no longer required for the Work, it is to be promptly removed from the Project site. Protection of construction materials and equipment stored at the Project site from weather, theft, damage, and all other adversity is solely the responsibility of the Contractor. The Contractor shall be held responsible for repairs, patching, or cleaning arising from such use.

**§ 3.13.2.1** The Contractor shall provide all temporary access walkways, both interior and exterior, temporary partitioning and the like necessary to complete the operations. The Contractor shall maintain in an unobstructed condition all entrances and/or exits from present buildings.

**§ 3.13.3** The Contractor and any entity for which the Contractor is responsible shall not erect any sign on the Project site without the written consent of the Owner, which may be withheld in the sole discretion of the Owner.

**§ 3.13.4** Without prior approval of the Owner, the Contractor shall not permit any workers to use any existing facilities at the Project site, including, without limitation, lavatories, toilets, entrances, and parking areas other than those designated by the Owner. Without limitation of any other provision of the Contract documents, the Contractor shall use his best efforts to comply with all rules and regulations promulgated by the Owner in connection with the use and occupancy of the Project site and the Building as amended from time to time. The Contractor shall immediately notify the Owner in writing if during the performance of the Work the Contractor finds compliance with any portion of the rules and regulations to be impracticable, setting forth the problems of such compliance and suggesting alternatives through which the same results intended by such portions of the rules and regulations can be achieved. The Owner may, in the Owner's sole discretion, adopt such suggestions, develop new alternatives or require compliance with the existing requirements of the rules and regulations. The Contractor shall also comply with all insurance requirements and collective bargaining agreements applicable to use and occupancy of the Project site and the Building.

**§ 3.13.4.1** All Contractor shall confine their use of the premises for all purposes, to the areas occupied by the construction and related storage areas as and if shown.

**§ 3.13.4.2** The responsibility for the safe working conditions at the site shall be the Contractor's. The Architect, Owner's Representative and Owner shall not be deemed to have any responsibility or liability in connection therewith.

**§ 3.13.5** Contractor's, their workers, suppliers, etc. will be held to adhere strictly to the requirements hereinbefore stated, and shall not occupy or carry traffic through other parts of the site or interior of present buildings except by specific permission of the Construction Manager.

**§ 3.13.6** The Contractor shall repair or replace any existing trees, shrubbery or other planting damaged by operations and/or workers employed in performance of its contract.


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**§ 3.13.7** Contractor shall insure that the Work, at all times, is performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. The Work shall be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the Work shall be free from all debris, building materials and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract Documents, Contractor shall use its best efforts to minimize any interference with the occupancy or beneficial use of (1) any areas and buildings adjacent to the site of the Work or (2) the Building in the event of partial occupancy, as more specifically described in Paragraph 9.9.

**§ 3.13.7.1** The Contractor shall provide full and free access for the Architect, Owner's Representative, Owner and/or their representatives, to inspect job materials, equipment, fabrication, facilities, and storage locations, at and away from the job site.

**§ 3.13.8** Employees, vehicles, equipment and material of the Contractor and of all others utilized by the Contractor for the performance of its work, shall enter onto the construction site only at those locations designated or approved by the Construction Manager.

**§ 3.13.9** The Contractor shall familiarize itself with any access and storage requirements set forth in the Supplementary Conditions and Division 1 and shall be subject to them. The Contractor shall properly maintain all access to work and storage areas so that there will be continuous unimpeded access to the work site in all seasons of the year, on all regular working days and all regular working hours of any and all trades employed by all contractors during work at this site.

**§ 3.13.10** Only such vehicles, trucks and equipment shall be parked or stored within the work areas are absolutely necessary for performing the work, for the length of time that particular phase of work is performed. All other contractor's vehicles and/or employees and/or workers' vehicles including passenger cars shall be parked off the site. There are no exceptions to the rule.

**§ 3.13.11** It shall be the responsibility of the Contractor to provide necessary and required security measures to adequately safeguard the construction site from vandalism and intrusion of unauthorized persons.

**§ 3.13.11.1** The Contractor shall submit the means and methods of security to the Owner through the Owner's representative for approval. The project site must be secured 24 hours a day, seven (7) days a week including holidays.

**§ 3.13.11.2** All workers and employees of any Contractor are prohibited from:
1. Trespassing or leaving any vehicle on any property not assigned by the Owner as set aside for the use of the Contractor.
2. leaving any vehicle on the grounds unless it is locked and the ignition keys removed.

**§ 3.13.11.3** All employees or persons entering the property surrounding the facilities affected by the construction are restricted to the immediate area of work. Only persons having official business will be admitted to the construction site.

**§ 3.13.3 Protection of Building Occupants**

**§ 3.13.3.1** Owner or Tenant occupied areas of the building shall always comply with the minimum requirements necessary to maintain a Certificate of Occupancy.

**§ 3.13.3.2** General safety and security standards for this project include:

- **.1** All construction materials shall be stored in a safe and secure manner;
- **.2** Fences shall be maintained around construction supplies or debris.
- **.3** Gates in temporary fences shall always be locked unless a worker is in attendance to prevent unauthorized entry to the Contract areas.


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**.4** 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.

**.5** Workers shall wear photo-identification badges at all times for identification and security purposes.

**.6** Separation of Construction Areas: Construction areas that are under the control of a Contractor and therefore not occupied by Owner or Tenants 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 contaminant barriers must be made to prevent exposure to dust or contaminants. Each Contractor working inside the buildings shall temporarily seal doorways enclosing their work area, using heavy duty plastic, duct tape, etc. Repairs of the plastic and tape must be made in the event the tape becomes loose or the plastic is cut or torn.

**.7** Type "X" Gypsum Board shall be used in exit ways or other areas that require fire rated separation.

**.8** Plastic sheeting may be used only as a vapor, fine dust, or air infiltration barrier, and shall not be used to separate occupied spaces from construction areas.

**.9** 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 Owner or Tenants.

**.10** 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.

**.11** All parts of the building affected by renovation activity shall be cleaned at the close of each workday, including but not limited to cleaning and disinfection in connection with infectious disease exposure precautions, whether permanent or temporary, required or suggested by federal, state or local governmental authorities.

**.12** Fire and hazard prevention: Areas of buildings under construction that are to remain occupied shall maintain a Certificate of Occupancy.

**§ 3.13.3.3** Noise Abatement During Construction:

**.1** 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 is not occupied, or acoustical abatement measures shall be taken.

**§ 3.13.3.4** Control of airborne contaminates during construction:

**.1** The Contractor shall be responsible for the control of the chemical fumes, gases, and other contaminates produced by their welding, gasoline or diesel engines, roofing, paving, painting, etc. to ensure they do not enter occupied portions of the building or air intakes.

**.2** The Contractor shall be responsible to ensure that its 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 manufacturer's recommendations before a space can be occupied.

**.3** Large and small asbestos abatement projects as defined by 12NYCRR56 shall not be performed in occupied areas of the building. Any area of the building where abatement of hazardous materials is being performed must be sealed off in an air-tight fashion from the remainder of the building in accordance with NY Code Rule 56 and other applicable laws and regulations.

**.4** The requirements of Section 155 of the Regulations of the New York State Commissioner of Education apply to this Project. Reference Section 01 3529.1 Life Safety Requirements During School Construction and the Official Compilation of Codes, Rules and Regulations of the State of New York, Title 8 Education Department, Chapter II Regulations of the Commissioner, Subchapter J. Buildings and Transportation Part 155 Education Facilities.

**§ 3.13.4** Each Contractor shall be responsible for complying with Occupational Safety and Health Administration (OSHA) and U.S. Department of Health and Human Services' Center for Disease Control and Prevention (CDC) on COVID-19 Guidance for safe work practices, use of personal protective equipment (PPE), social distancing, cleaning, and sanitizing of the worksite. These protocols shall be incorporated into each Contractor's safety work plan.

**§ 3.13.5** All construction workers and suppliers are to execute a Health Declaration Form/Questionnaire each day prior to gaining access to one of the construction sites during the COVID-19 crisis.


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**§ 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** In order to eliminate cutting and patching as much as possible, each Prime Contractor shall coordinate the installation of sleeves and inserts with the other Prime Contractors affected and shall give proper and detailed instructions to others where Work may be affected by their Work, with adequate notice prior to the erection of new Work. Cutting and patching Work as required to install new Work or remove existing Work shall be done carefully and neatly with as little damage as possible.

**§ 3.14.3** Unless otherwise stated in Specification Section 01 7329 Cutting and Patching, each Prime Contractor shall perform all cutting and patching as required to complete their Work. Cutting is to be done neatly with minimal damage to surrounding materials and holes to be patched and/or fire safe as required to the satisfaction of the Construction Manager, Architect and Owner.

**§ 3.14.4** Any costs caused by defective or ill-timed Work shall be borne by the Contractor responsible, therefore. Any Contractor who is required to cut and patch its new Work to provide conditions for other contractors to complete their new Work and who was not given adequate prior notice of the conditions required for completion of such Work before doing its Work, shall charge the Contractor in default the documented cost of the cutting and patching Work plus 15% for overhead and profit unless otherwise specified.

**§ 3.14.5** Cutting and patching of any Work shall be made in such a manner as to not breach any provisions of any guarantee or warranty on existing Work left in place or guarantee or warranty required for his new Work. Patching of Work shall match existing adjacent surfaces and patch work shall be disguised completely to hide any trace of patching.

**§ 3.14.6** Refer to Contract (General, Supplementary and other conditions) Section 01 7329 Cutting and Patching for more information.

**§ 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.

**§ 3.15.1.1** All Contractor's work areas shall be kept clean each day, of refuse, including containers, cups and the like. The facilities will remain in operation during the course of the entire construction operation. All Contractors performing work on this Contract shall schedule their work so as not to interfere with any traffic to and from the required areas of use. The Contractor shall be responsible for maintaining all traffic, and shall provide all barriers and protection as required to safeguard the work and the public and the occupants of the building during construction. The Prime Contractors shall comply with all fire code regulations during construction. They include vehicular parking, smoke partitions, rescue window obstructions, use of extension cords. The fire code is available for reference at the Buildings and Grounds office.

**§ 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.

Each Contractor shall be responsible for cleaning their rubbish daily and removing all rubbish from the interior and exterior site weekly or when otherwise requested by the Owner. The General Contractor shall broom sweep all construction areas at least every Friday. Surfaces shall be left clean of mortar and paint spots and the like. The Contractor shall work in a condition approved by the Construction Manager. An inspection will occur on Friday afternoon and failure to properly clean will result in the Owner engaging a cleaning company each time the requirement is not met, without prior notification to the Contractor. The cost will be divided among each Contractor


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who has not cleaned their debris and shall include any custodial overtime, Construction Manager's administration fees, etc.

**§ 3.15.3** Each Prime Contractor is solely responsible for clean-up to the Construction Manager's and Owner's satisfaction. Further, each Contractor shall fully cooperate with all other Contractors in the coordinated effort to meet the Owner's time and quality requirements for clean-up.

**§ 3.15.4 Final Cleaning**

A. General: General cleaning during construction is required by the General Conditions and included in Division 01.
B. Final Cleaning: Clean each surface or unit to the condition expected in normal commercial building cleaning. Comply with manufacturer instructions. Complete the following cleaning operations before requesting inspection for Certificate of Substantial Completion.
    1. Clean transparent materials including glass in doors windows. Replace any damaged glass.
    2. Clean exposed finishes to a dust free condition, free of stains, films and similar foreign substances. Clean floors as recommended by the manufacturers if new, if existing carpeted floors shall be vacuumed and wood, ceramic tile and vinyl tile floor floors shall be mopped.
    3. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
C. Removal of Protection: Remove temporary protection and facilities installed for protection of work during construction unless otherwise directed by the Owner, Architect or Owner's Representative.
D. Compliance: Comply with authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.

**§ 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, Architect, and the Construction Manager, and 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, including suits, claims, damages, losses or expenses attributable to any bodily injury, sickness, disease, or death, or injury to or destruction of any tangible property, including loss of use resulting therefrom, or any statutory violations, 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, Architect or Construction Manager for the negligence of the Owner, Architect or Construction Manager, respectively, to the extent such 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,


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compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

**§ 3.18.3** In any and all Claims against the Owner, Construction Manager, or the Architect or their agents or employees by third parties, the indemnification obligation under § 3.18 shall apply and shall not be limited by limitation or amount of or type of damages, compensation, or benefits payable by or for the Contractor or Subcontractors.

**§ 3.18.4** Contractor shall comply with, and cooperate with, Construction Manager, Architect and Owner in complying with legal requirements. Among other things, Contractor shall be responsible for performing corrective Work within any abatement periods prescribed by governmental entities including but not limited to OSHA, appealing from decisions or orders, requesting extensions on abatement periods, and furnishing such information or evidentiary material as may be necessary or as may be requested by Construction Manager, Architect or Owner to fully protect the rights and interests of Owner, Construction Manager, and Architect with respect to possible, threatened or pending proceedings or orders.

**§ 3.19 Contractor's Responsibilities**

**§ 3.19** Contractor agrees, in addition to all other responsibilities and duties under the Contract:

**§ 3.19.1** To use all necessary means to discover and to notify the Construction Manager, Architect and Owner in writing of any defect in other Work upon which the satisfactory performance of the Work may depend, and to allow a reasonable amount of time for remedying such defects. If Contractor should proceed with the Work, Contractor shall be considered to have accepted and be responsible for such other Work unless over Contractor's written objection, Contractor shall have proceeded pursuant to written instructions from the Architect.

**§ 3.19.2** To submit to Owner, Construction Manager, and Architect promptly upon request, information with respect to the names, responsibilities and titles of the principal members of Contractor's staff.

**§ 3.19.3** To take all steps necessary to avoid labor disputes; and to be responsible for any delays and damages to Owner caused by such disputes.

**§ 3.19.4** To pay for costs of repair to other Work attributable, in whole or in part, to the fault or negligence of Contractor and Owner's charges for removal of rubbish attributed to Contractor, and any clean-up related to Contractor or the Work, as determined by Owner or Construction Manager.

**§ 3.19.5** To comply with all legal requirements; to appear at hearings, proceedings or in court in respect of such compliance or in respect of violations or claimed violations of legal requirements; to pay any fines or penalties imposed for said violations; and to pay all legal fees, fines and penalties incurred by or imposed upon Owner relating to Contractor's compliance, violations or claimed violations. Without limiting the foregoing, Contractor shall appear at hearings, proceedings and/or in court and consent to its substitution as a party defendant in respect of all summonses and claimed violations arising out of or relating to the Work.

**§ 3.19.6** Not to display on or about the Project site any sign, trademark or other advertisement without written consent of the Owner.

**§ 3.19.7** Each Contractor's Subcontractor and supplier shall be bound by all Contract Documents to the same extent and with the same effect as if the Subcontractor or supplier were the Contractor. Contractor shall cause Subcontractors and suppliers to comply with all the Contract Documents. Contractor shall be responsible for all the acts, work, material and equipment of its Subcontractors and supplier and all persons either directly or indirectly employed by any of them.

**§ 3.19.8** To:

- **.1** Furnish a competent and adequate staff and use its best skill and attention for the proper administration, coordination, supervision, and superintendence of the Work;
- **.2** Organize the procurement of all materials and equipment so that they will be available at the time needed for the Work;
- **.3** Keep an adequate force of skilled workers on the job to complete the Work in strict accordance with all requirements of the Contract Documents;


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**.4** Maintain throughout the duration of the Work a competent superintendent and any necessary assistants, all of whom shall be acceptable to Owner and shall not be changed without the consent of the Owner;

**.5** Enforce discipline and order and not to employ at the Project any unfit person or anyone not skilled in the task assigned; and

**.6** Provide supervision by experts in all aspects of the application of the materials, equipment or system being fabricated and installed.

**§ 3.19.9** That if any Work is performed which is contrary to legal requirements, to promptly make all changes as required and take all other corrective action to comply therewith and pay all costs arising there from.

**§ 3.19.10** That any review or consideration by Owner, Construction Manager, or Architect of any method of construction, invention, appliance, process, article, device or material of any kind shall be for its general adequacy for the Work and shall not be an approval for the use thereof by Contractor in violation of any patent or other rights of any third person. Owner and Architect shall in no event be deemed to have reviewed or to have been required to review or consider the means and methods of construction, all of which are chosen exclusively by the Contractor.

**§ 3.19.11** That if any provision of the Contract Documents conflicts with any agreement among members of trade associations, or with a union or labor council which regulates the work to be performed by a particular trade, to reconcile such conflict without delay or damage to Owner. In the event the progress of the Work is delayed by such conflict, Architect may require that other material or equipment of equal or better kind and quality be provided at no additional cost to Owner. This right of substitution shall not limit other rights that the Owner may have concerning such delay.

**§3.19.12** In accordance with local or NY State Laws and Regulations, the Contractor, including any of its employees, subcontractors, suppliers or materialmen or other representatives, shall not use tobacco in any form on the premises during the course of the Work. Contractors failing to abide by this requirement shall be prohibited from working at the site and shall be responsible for any consequent delays or added costs to the Owner as a result of such noncompliance.

**§ 3.19.13** The Contractor shall provide reasonable and visible identification for each employee, Subcontractor, or other person at the Project site, and shall, upon request of the Owner, make available a list of names of those employees, Subcontractors or others working under the direction of the Contractor at the Project site. Any such identification shall be reasonably visible to the Construction Manager, Architect and to Owner's or Tenants' personnel at all times to allow the Owner to maintain the safety and security of buildings, property, and persons at the Project site. Contractors failing to abide by this requirement are different from those as indicated.

**§ 3.19.14** The Contractor, its employees and Subcontractors and their employees shall be subject to and abide by rules and regulations established by the Owner. No weapons of any kind shall be permitted on-site; there shall be no harassment of a sexual, ethnic, or religious nature; there shall be no use of profanity.

**§ 3.20 Local Conditions, Existing Features and Underground Data**

**§ 3.20.1** The Contractor acknowledges it has satisfied itself as to the nature and location of the Work, the general and local conditions, particularly those bearing on transportation, disposal, handling and storage of materials, availability of labor, materials, equipment, utilities, roads, weather, ground water table, character of surface and subsurface materials and conditions, the facilities needed to prosecute the Work, and all other factors which in any way affect the Work or the cost thereof under this Contract. Any failure by the Contractor to acquaint itself with the available information concerning these conditions will not relieve it from the responsibility of successfully performing work. See Section § 1.2.2.1.

**§ 3.20.2** The location of existing features shown on plans is intended for general information only. The Contractor is solely responsible for accurate determination of the location of all structures and shall not be entitled to any extra payment due to any unforeseen difficulties or distances encountered in the Work.

**§3.20.3** The locations, depths, and data as to underground conditions have been obtained from records, surface indications and data furnished by others. The information furnished is solely for the convenience of the Contractor without any warranty, expressed or implied as to its accuracy or completeness. To the extent permitted by law, the Contractor shall make no claim against the Owner or Architect or the Construction Manager with respect to the accuracy or completeness of such information if erroneous, or if the conditions found at the time of construction.


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**§ 3.21 Construction Stresses**

**§ 3.21.1** The Contractor shall be solely responsible for the load conditions created during construction. The Contractor shall be responsible for repairing any structure which is dislocated, over strained, or damaged during construction.

**§ 3.21.2** The Contractor is responsible for restoration and/or repair of utilities, property, buildings, pavement, walkways, roads, etc. damaged by its activities.

**§ 3.22 Training and Instructions**

**§ 3.22.1** Upon Substantial Completion of the Work, the Contractor shall orient and instruct the Owner's designated personnel in the operation and maintenance of all equipment furnished by the Contractor and shall turn over all pertinent literature and operational manuals relating to the equipment. The format for organizing, binding, and delivering such manuals shall be as described in the Specifications.

**§ 3.23 Daily Records Clause**

**§ 3.23.1** 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.

**§ 3.23.2** 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.

**§ 3.23.3** Such daily records shall be copied and provided to the Owner 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** The Construction Manager is the person or entity retained by the Owner pursuant to Section 2.3.3 and identified as such in the Agreement.

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

**§ 4.1.4** If the employment of the Architect or Construction Manager is terminated, the Owner shall employ a successor Architect or Construction Manager.

**§ 4.1.5** The Architect shall be deemed a third-party beneficiary of the Contract and the General Conditions of the Construction Contract and Supplementary Conditions. As such, where Architect incurs additional costs as a result of actions of the Contractor or any of its Subcontractors and Architect is not entitled to compensations for such costs by Owner as Additional Services, such additional cost shall be paid by the Contractor directly to the Architect as Architect's current rates.

**§ 4.2 Administration of the Contract**

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

**§ 4.2.2** The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to


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

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

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

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

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

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

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

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

**§ 4.2.10** The Construction Manager will receive and promptly review for conformance with the submittal requirements of the Contract Documents, all submittals from the Contractor such as Shop Drawings, Product Data, and Samples. Where there are other Contractors, the Construction Manager will also check and coordinate the


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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 Architect will prepare Change Orders and Construction Change Directives. The Construction Manager shall review, approve and sign all Project Change Orders and Construction Change Directives in conjunction with the Owner. The Construction Manager will review change order requests, assist in negotiating the change order requests and submit recommendations to the Architect and Owner.

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

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

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

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

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


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

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

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

## ARTICLE 5 SUBCONTRACTORS

### § 5.1 Definitions

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

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

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

**§ 5.2.1.1** Refer to Information to Bidders for requirements for delivery of a list of subcontractors to Architect's office after receipt of bids and before award of Contract.

**§ 5.2.1.2** Subcontractors will not be acceptable unless, when required by the Construction Manager, evidence is furnished that the proposed subcontractor has satisfactorily completed similar subcontracts as contemplated under this prime contract, and has the necessary experience, personnel, equipment, plant, and financial ability to complete the subcontract in accordance with the intent to the Documents.

**§ 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.


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**§ 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.

**§ 5.3.1** The Contractor shall not enter into any subcontract, contract, agreement, purchase order or other arrangement for the furnishings of any portion of the materials, services, equipment or Work with any party or entity if such party or entity is an Affiliated Entity, unless such Arrangement has been approved by the Owner, after full disclosure in relationship and all details relating to the proposed Arrangement. The term "Affiliated Entity" means any entity related to or affiliated with the Contractor with respect to which the Contractor has direct or indirect ownership or control, including, without limitation,

.1 Any entity owned in whole or in part by the Contractor;

.2 Any holder of more than ten percent (10%) of the issued and outstanding shares of, or the holder of any interest in, the Contractor; or

.3 Any entity in which any officer, director, employee, partner or shareholder or member of the family of any of the foregoing persons) of the Contractor or any entity owned by the Contractor has a direct or indirect interest, which interest includes, but is not limited to, that of a partner, employee, agent or shareholder.

**§ 5.3.2** The Contractor shall promptly notify the Owner, the Construction Manager, and Architect of any material defaults by any Subcontractors. Notwithstanding any provision contained in this Article 5 to the contrary, it is hereby acknowledged and agreed that the Owner has in no way agreed, expressly or impliedly, nor will the Owner agree, to allow any Subcontractor or other material supplier or worker employed by the Contractor the right to obtain a judgment or decree against the Owner for the amount due it form the Contractor.

**§ 5.3.3** The Contractor shall check record drawings each month. Written confirmation that the record drawings are "up to date" shall be required by the Construction Manager prior to approval of the Contractor's monthly payment requisition.

**§ 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.

**.3** Any Subcontract over $5,000.00 shall be in writing.

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

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


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

**§ 5.4.4** Each subcontract shall specifically provide that the Owner shall be responsible to the Subcontractor for those obligations of the Contractor that accrue subsequent to the owner's exercise of any rights under this conditional assignment.

**§ 5.5 Owner Payment to Subcontractors**

**§ 5.5.1** In the event of any default hereunder by the Contractor, or in the event the Owner, Construction Manager, or Architect fails to approve any application for payment, that is not the fault of a Subcontractor, the Owner may make direct payment to the Subcontractor, less appropriate retainage. In that event, the amount so paid the Subcontractor shall be deducted from the payment to the Contractor.

**§ 5.5.2** Nothing contained herein shall create any obligation on the part of the Owner to make any payments to any Subcontractor, and no payment by the Owner to any Subcontractor shall create any obligation to make any further payments to any Subcontractor.

## 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.


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**§ 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.

**§ 7.1.1.1** Construction Change Directive: Architect may issue a document, on AIA Form G714, signed by Owner, instructing Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. The Document shall describe the changes in the Work and designates method of determining any change in Contract Sum or Contract Time.

1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract time.
2. Promptly execute the change.

**§ 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.

**§ 7.1.2.1** Proposal Request: Architect may issue a document which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications. Contractor shall prepare and submit a fixed price quotation within 7 calendar days of receipt of such documents.

**§ 7.1.2.2** Submit to the Construction Manager, the Name of the Individual Authorized to receive change documents and who will be responsible for informing others in contractor's employ or subcontractors of changes to the Contract Documents.

**§ 7.1.2.3** Contractor may propose a change by submitting a request for change to the Construction Manager, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract time with full documentation and a statement describing the effect on Work by separate or other contractors. The Construction Manager Shall Submit to the Architect for review.

**§ 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.

**§ 7.1.4** Changes in the Work involving additional Work or deletion of Work whether or not resulting in an addition to or subtraction from the Contract Sum shall not be made until the Contractor submits to the Construction Manager the cost of the added or deleted Work with a complete and detailed listing of all Subcontractors involved, all materials, labor and equipment.

**§ 7.1.4.1** Overhead and profit as described in § 7.1.7 and § 7.1.7.1 may be added to the cost of a Claim for additional Work *only* when the source of monies for such additional Work is not an Allowance included in the Contract Sum or any other monies for Work included in the Contract Sum.


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**§ 7.1.4.2** Changes in the Work whether or not involving additions or deductions from the Contract Sum shall not be made until an appropriate Change Order or Change Directive have been issued.

**§ 7.1.4.3** ALL CHANGE ORDERS MUST HAVE THE APPROVAL OF THE OWNER AND ARCHITECT IN WRITING.

**§ 7.1.5** Actual cost of labor and material shall be defined as the amount paid for the following items, to the extent determined reasonable and necessary:

**.1** Cost of materials delivered to the job site for incorporation into the contract work.

**.2** Wage paid to workers and foreman and wage supplements paid to labor organizations in accordance with current labor agreements.

**.3** Premiums or taxes paid by the Contractor for worker's compensation insurance, unemployment insurance, FICA tax and other payroll taxes as required by law, net of actual and anticipated refunds and rebates. (Not to be included in calculation of overhead and profit.)

**.4** Sales taxes as required by law.

**.5** Allowance for use of construction equipment (exclusive of hand tools and minor equipment), as approved for use by the Architect. The rate on self-owned equipment used for periods of under 1 week will be the Associated Equipment Distributor's published monthly rate divided by 22 days to establish a daily rate and divided again by 8 hours to establish an hourly rate. Equipment used for periods of 5 days or more will be billed at a rate equal to 45 percent of the published monthly rate. In the alternative, the Architect may approve the reimbursement of a rate representing the allocable costs of ownership. Self-owned equipment is defined to include equipment rented from controlled or affiliated companies. Rented equipment will be paid for at the actual rental cost. Gasoline, oil and grease required for operation and maintenance will be paid for at the actual cost. When, in the opinion of the Contractor and as approved by the Architect, suitable equipment is not available on the site, the moving of said equipment to and from the site will be paid for at actual cost.

**§ 7.1.6** Overhead shall include insurance other than those incidental to labor mentioned above, premiums on bonds required by the Contractor, Contractor's Supervisory employees, office management, home and field office expenses, transportation costs and both manual and power small tools and manual and power small equipment.

**§ 7.1.6.1** For Work done by the Prime Contractor's own forces, mark-up for combined overhead and profit on materials and on cost of labor shall not exceed 15%.

**.1** Work authorized under Article §3.8 Allowances are not subject to overhead and profit.

**§ 7.1.6.2** For Work done by the Subcontractors, mark-up of costs as defined herein by Subcontractor's for combined overhead and profit on materials and on cost of labor shall not exceed 10%.

**.1** To this amount, 5% may be added for the Prime Contractor's combined overhead and profit.

**.2** Work authorized under Article §3.8 Allowances are not subject to overhead and profit.

**§ 7.1.7** To facilitate reviewing quotations for either extra charges or deductions, all proposals shall be accompanied by a complete itemization of costs including labor, materials, subcontracts, and if allowed, mark-ups for overhead and profit. Subcontracts shall be similarly itemized. In no case will a change involving over $1,000.00 be approved without itemization.

**§ 7.1.7.1** If requested, the Contractor shall submit detailed quotations from material suppliers.

**§ 7.1.8** Regardless of the method used to determine the value of any change, the Contractor will be required to submit evidence satisfactory to the Architect to substantiate each and every item that constitutes his proposal of the value of the change. The amounts allowed for overhead and profit shall not exceed the applicable percentages as established in the two (2) following Sections:

**§ 7.1.8.1** If the Work is done directly by the Contractor, overhead and profit in the amount of 15% may be added to the cost proposal. The percentages for overhead and profit may vary according to the nature, extent and complexity of the work involved, but in no case shall exceed the percentages set forth in the paragraph. Overhead and profit percentages are not to be applied to the premium portion of overtime pay.


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**§ 7.1.8.2** If the Work is done by a subcontractor, subcontractor's overhead and profit in the amount of 10% may be added to the cost of labor and materials. To this amount, there may be added 5 percent for the Contractor's combined overhead and profit. Overhead and profit percentages are not to be applied to the premium portion of overtime pay.

**§ 7.1.9** Whenever the cost of any Work is to be determined pursuant to § 7.1.1 thru § 7.1.8, Contractor will submit in form acceptable to the Construction Manager and Architect an itemized cost breakdown together with supporting data.

**§ 7.1.9.1** In computing the value of a change order which involves additions and deductions of work and the added work exceed the omitted work, overhead and profit shall be computed on the amount by which the cost of additional labor and materials exceeds the cost of the omitted labor and material, except no additional overhead and profit shall be allowed on value of work determined in accordance with § 7.1.5.

**§ 7.1.9.2** In computing the value of a change order which involves deductions and additions and the Work omitted exceeds the added Work, the Contractor will be allowed to retain the overhead and profit on the amount by which the omitted Work exceeds the added Work, except that no overhead and profit shall be retained on value of work.

**§ 7.1.9.3** The Contractor may retain overhead and profit on a change order which involves deductions only, except that no overhead and profit shall be considered on value of Work."

**§ 7.2 Change Orders**

A Change Order is a written instrument prepared by the Architect 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 Architect and signed by the Owner, Contractor, 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. Lump sum adjustment shall be substantiated by submitting evidence of actual costs to the Construction Manager and Architect for 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
**.4** As provided in Section 7.3.4.

**§ 7.3.4** If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Construction Manager shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an allowance for overhead and profit in accordance with § 7.1.8, § 7.1.8.1, § 7.1.8.2, § 7.1.9, § 7.1.9.1, § 7.1.9.2, § 7.1.9.3, and when permitted by § 7.1.6 and § 7.1.6.1. 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:


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

.2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;

.3 Rental costs of machinery and equipment, exclusive of manual and small power tools and manual and small power equipment, whether rented from the Contractor or others;

.4 Costs of permit fees, and sales, use, or similar taxes, directly related to the change; and

.5 Costs of consumable supplies.

**§ 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 incorporated into a Change Order.

**§ 7.3.8** 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.

**§ 7.3.9** 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.

*(Paragraph deleted)*

### § 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 Unit Prices

**§ 7.5.1** Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of § 7.1.1.1 through § 7.5.1.4 inclusive).

**§ 7.5.1.1** Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Architect in accordance with § 7.5.4.

**§ 7.5.1.2** Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.


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**§ 7.5.1.3** Where the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement and there is no corresponding adjustment with respect to any other item of work and if Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may make a claim for an increase in the Contract Price in accordance with Article 11 if the parties are unable to agree as to the amount of any such increase.

**§ 7.5.1.4** Construction Manager will determine the actual quantities and classifications of unit price work performed by Contractor. Construction Manager and Architect will review with the Contractor, Architect's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Architect's written decisions thereon will be final and binding upon Construction Manager, Owner and Contractor unless, within 10 days after the date of any such decision, either Owner or Contractor delivers to the other party to the Agreement and to Architect written notice of intention to appeal from such a decision.

**§ 7.6 Alternates**

**§ 7.6.1** Where the Work involved is covered by Alternate contained in the Contract Documents, the Owner shall have the right of selection in respect to any or all of the Alternates as Bid. The Contractor shall provide the Owner thirty (30) days' written notice when the doing said work of an Alternate impacts the new Work or the removal of materials/products already installed or the acceptance of the Alternate will increase the Contractor's Contract amount.

**§ 7.7 Field Orders**

**§ 7.7.1** Field Orders are an interpretation of the Contract Documents or an order to do minor changes in the Work. Since time is of the essence, Contractor shall promptly complete the Work directed in the Field Order, which shall be writing. Failure to proceed with a Field Order, which will adversely impact the completion of the project or delay the work of another contractor, shall be just cause for the Owner taking over the Work, or termination of Contract.

**§ 7.7.2** Field Orders are not to be construed as Change Orders. A signed field order is not an approved Change Order.

**§ 7.7.3** Neither the Owner, Architect nor Construction Manager shall sign field tickets, work orders or any other document prepared by the Contractor. Should the Contractor desire to record extra work performed, the Contractor may request that the work be monitored by the Construction Manager and submit a copy of the field ticket/work order immediately upon completion of such work. The Contractor may also request a copy of the Construction Manager's log.

**ARTICLE 8 TIME**

**§ 8.1 Definitions**

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

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

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

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

**§ 8.2 Progress and Completion**

**§ 8.2.1 TIME IS OF THE ESSENCE IN THE COMMENCEMENT, EXECUTION AND CONSTRUCTION OF THE WORK**. Contractor shall be responsible for all direct and consequential damages to Owner, Construction Manager, and Architect arising from any delay of Contractor, its Subcontractors and suppliers, in performing or completing the Work in accordance with the time requirements. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

**§ 8.2.1.1** Contractor shall cooperate with the Owner, Construction Manager, Architect and other Contractors on the Project, making every reasonable effort to reduce the contract time.


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**§ 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.

**§ 8.2.2.1** Contractor shall not commence Work on the site until two copies of all insurance policies as indicated in Article 11, attesting that the required coverage is in force, have been accepted by the Owner.

**§ 8.2.3** Contractor shall do all things necessary to ensure the prosecution of the Work in accordance with any one or more of the following as determined by the Construction Manager and the Owner, in their discretion:

**.1** Project schedules and revisions thereof,;
**.2** The time requirements for various portions of Work;
**.3** The requirements of the Project including, but not limited to, coordination requirements as may from time to time be known to Contractor;
**.4** Schedules of the Work provided by Contractor to Construction Manager upon the Owner's request.

**§ 8.2.4** If the Contractor does not achieve Substantial Completion within the Contract Time established in the Agreement between the Owner and the Contractor, or in a subsequent Change Order, the Contractor shall be liable to the Owner, in addition to any actual or consequential damages, for the costs of reimbursements to the Owner's Agents including, but not limited to, the Construction Manager and Architect for their services attributable to this delay.

**§ 8.2.5** Should the progress of the Work and/or other Work be delayed by any fault, neglect, act or failure to act of Contractor or any of its Subcontractors or suppliers so as to cause any additional cost, expense, liability or damage to Owner, Construction Manager, or Architect or for which Owner , Construction Manager, or Architect may become liable, Contractor shall hold Owner, Construction Manager, and Architect harmless from and indemnify Owner, Construction Manager, and Architect against all such additional cost, expense liability or damage in accordance with the provisions of Article 11.

**§ 8.2.6** The Work shall be performed during designated working hours, except that in the event of emergency or when necessary to perform the Work in accordance with the requirements of § 8.2, Work shall be performed at Contractor's cost and expense on other shifts, overtime, Saturdays, Sundays, Holidays and at other times, if permission to do so has been obtained in writing from Owner. Without limiting the requirements of the preceding sentence, if the progress of the Work or of the Project has been delayed by any fault, neglect, act or failure to act of Contractor or any of its Subcontractors or suppliers, Contractor shall work such overtime, at Contractor's cost and expense as aforesaid, as Construction Manager shall deem necessary or desirable to make up for all time lost and to avoid delay in the completion of the Work and of the Project. The failure by Construction Manager to direct Contractor to engage in such overtime shall not relieve Contractor of the consequences of its delay.

**§ 8.2.7** Unless otherwise noted, the date of commencement of the Work is the date established in the Agreement. Contractor shall organize construction schedules as specified in § 3.10, Contractor's Construction Schedules. The commencement date shall not be postponed by the failure to act of the Contractor or of persons or entities for which the Contractor is responsible.

**§ 8.2.8** The Construction Manager may direct acceleration of the Work so that it may be performed in advance of the schedules, time requirements and Project requirements. If so directed, Contractor shall increase its staff and/or work overtime. Contractor will not be entitled to additional compensation for Work performed outside of designated working hours, except as approved by Owner. Provided that Contractor is not in default under the Contract, and Owner has issued the aforesaid authorization, there shall be added to the Contract Sum as actual out-of-pocket amount equal to:

**.1** Additional premiums on wages actually paid, at rates that have been accepted by Construction Manager and Architect
**.2** Taxes imposed by law on such additional wages;
**.3** Premiums for worker's compensation and liability insurance if required to be paid on such additional wages.

Written authorization for overtime work that exceeds $500.00 for which Contractor intends to charge the Owner in any one week shall be invalid unless confirmed in writing by the Owner, it being understood that Owner's Designated Representative shall not have authority to authorize such overtime which exceeds $500.00 in any one week.


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**§ 8.2.9** In no case shall the contractor delay the progress of the Work or any part thereof on account of changes in the Work or disputes caused by proposed or ordered changes in the Work or any disputes or dis-agreements as to the equitable value of such changes.

**§ 8.2.10** Contractor and Contractor's Surety shall be strictly accountable for completion as a condition to satisfactorily contractual performance.

**§ 8.3 Delays and Extensions of Time**

**§ 8.3.1** Should Contractor be obstructed or delayed in the commencement, prosecution or completion of the Work, without fault on its part, by reason of failure to act, direction, order, neglect, delay or default of the Owner, Construction Manager, or the Architect; by changes in the Work; fire, lightning, earthquake, enemy action, act of God or similar catastrophe; by Governmental restrictions with respect to materials or labor, or by an industry-wide strike beyond Contractor's reasonable control, then Contractor shall be entitled to an extension of time lost by reason of any and all causes aforesaid, but no Claim for extension of time on account of delay shall be allowed unless a Claim in writing therefore is presented to Construction Manager with reasonable diligence but in any event not later than fifteen (15) days after the commencement of such claimed delay. Except for the causes specifically listed above in this sub-section, no other cause or causes of delays shall give rise to an extension of time to perform the Work. The granting of an extension of time is conditioned upon Contractor's timely submission of the aforesaid written notice. Except to the extent, if any, expressly prohibited by law, Contractor expressly agrees not to make, and hereby waives, any Claim for damages, including those resulting from increased labor or material cost, on account of any delay, obstruction or hindrance for any cause whatsoever, whether or not foreseeable and whether or not anticipated including but not limited to the aforedescribed causes, and agrees that the sole right and remedy therefore shall be extension of time, provided the requisite condition as to written Claim has been met.

**§ 8.3.2** If Contractor claims an increase in the Contract Sum or an extension in the completion time required by reason of a change in the Work, Contractor shall give Construction Manager and Architect written notice within fifteen (15) days after Contractor's knowledge of the occurrence of the matter giving rise to such Claim. This notice shall be given by Contractor before proceeding to execute the changed Work, except in an emergency endangering life or property in which case Contractor shall proceed in accordance with § 10.3. No such Claim will be valid unless notice is given as required in this section. Contractor shall proceed to execute the Work, even though the increase or time extension has not been agreed upon.

**§ 8.3.2.1** Extension of time, if requested by the Contractor, shall only be considered after the Contractor has made reasonable effort to recover the lost time. These efforts shall be documented by the Contractor and submitted to the Architect.

**§ 8.3.2.2** An extension, or extensions, of time may be granted subject to the provisions of this article, but only after written application therefore by the contractor in accordance with Article 15.

**§ 8.3.2.3** An extension of time shall be only for the number of days of delay that the Construction Manager may determine to be due solely to the causes set forth in the application for extension of time. The Contractor shall not be entitled to receive a separate extension of time for each one of several causes of delay operating concurrently; but if at all, only the actual period of delay as determined by the Construction Manager.

**§ 8.3.3** Contractor shall not be allowed an extension of time unless Contractor has established to the satisfaction of the Owner, Construction Manager, and Architect that the delay claimed by Contractor is to a portion of the Work on the critical patch of the work schedule.

**§ 8.3.4** Under no circumstances will Contractor look to or make a Claim against Owner, Construction Manager, or Architect for the consequences of any delay resulting from directions given or not given by Construction Manager including scheduling and coordination of the Work or resulting from Architect's preparation of Drawings and Specifications or review of Shop Drawings.


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**§ 8.3.5** When the Contract Time has been extended, such extension of time shall not be considered as justification for extra compensation to the Contractor for administrative costs or other similar reasons.

**§ 8.4 Damages for Delay**

**§ 8.4.1 Architectural Changes for Delay in Completion**. If the entire work is not fully completed within the maximum allowable time for completion specified in the agreement, including any extensions granted thereto, architectural charges incurred by the Owner, from the completion date thus established to the actual final Date of Substantial Completion of the work, shall be charges to the Contractor for failing to complete its work by the stipulated date and be deducted from the final monies due the Contractor. Such charges shall be determined at the rate of $750.00 per day per man for each and every man and day that the Architect and Construction Manager needs to furnish project management or an on-site Construction Manager Representative.

**§ 8.4.2 Liquidated Damages for Delay in Completion**. Failure to complete the work within the maximum allowable time for completion specified in the Agreement and/or the Milestone Schedule, including any extensions granted thereto, or failure to meet an intermediate milestone date as established by the Milestone Schedule, shall entitle the Owner to deduct from monies due to the Contractor, or to otherwise charge the Contractor, as liquidated damages the amount per calendar day of One Thousand Dollars ($1,000.00) for each calendar day beyond such maximum allowable time in the completion of the work. Such amount of liquidated damages shall be in addition to the $750 per day charges for delay described in Paragraph 8.4.1.

The absence of a liquidated damage amount and/or other criteria concerning same shall not preclude the Owner from exercising its rights. All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 8 shall not exclude recovery by Owner for damages (including but not limited to fees and charges of Engineers, Architects, Construction Manager, Attorneys and other professionals and court and litigation costs) for delay by the Contractor.

**§ 8.4.3 No Damage for Delay**. Each Prime Contractor agrees to make no claims for delay in the performance of this Contract occasioned by an act or omission, or act of the Owner of any of its representatives and agrees that such a claim shall be fully compensated for by an extension of time to complete the performance of the work as provided herein.

## ARTICLE 9 PAYMENTS AND COMPLETION

**§ 9.1 Contract Sum**

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

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

**§ 9.2 Schedule of Values**

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, 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.

**§ 9.2.1** Submit a printed schedule on AIA form G703 – Application and Certificate for Payment Continuation Sheet. Submit in duplicate to the Architect within 15 days after date of Owner-Contractor Agreement.

**§ 9.2.2** Format: Utilize the Table of Contents of the Project Manual. Identify each line item with number and title of the Specification Section for each Project site. Provide breakdown of both labor and materials.


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**§ 9.2.3** Include within each line item a direct proportional amount of contractor's overhead and profit.

**§ 9.2.4** Line item for Record Drawings which are to be turned over to the Owner at the end of the Project shall not be less than o.15 percent of the Contract price.

**§ 9.2.5 Schedule of Contract Values**

**.1** The list of items shall include all items included in all Divisions and Sections of the specifications and shall be shown as separate line items.

**.2** The following items shall also be listed separately as line items (with their respective values):

- Bond and Project Insurance.
- Mobilization and Demobilization.
- Superintendence.
- Training, Operations and Maintenance Manual, Construction Record Documents.
- Each Allowance associated with the Contract.
- Each Alternate accepted.
- Each Change Directive as it is issued; to be listed below the associated allowance.
- Each Change Order as it is issued.
- Warranties.
- Records Drawings.
- Temporary Facilities.
- Cleaning.
- Submittals.
- Items to be Completed List.

**.3** Contractor shall maintain and keep current all changes to the Schedule of Values caused by Change Orders, Construction Change Directives or other authorized changes. Such revised Schedule of Values shall be presented monthly with the Application for Payment.

**§ 9.3 Applications for Payment**

**§ 9.3.1** Applications for payment shall be made monthly on the current AIA Form G732-2019 Application and Certificate for Payment and G703 Continuation Sheet for operations completed in accordance with the Approved Schedule of Values. Applications shall be based on the contract prices of labor and materials incorporated into the Work and of materials suitably stored and secured up to the last day of the previous month, less retainage and less the aggregate of previous payments. Change orders when approved shall be listed at the bottom of the last sheet of the payment application.

**§ 9.3.1.1** At least twenty (20) days prior to date established for each progress payment, each Contractor shall submit to the Construction Manager for its review, a preliminary pencil copy of an itemized Application for Payment completed in accordance with the approved Schedule(s) of Values.

**§ 9.3.1.2** Such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives but not included in Change Orders. Such items, if anticipated to be paid from an Allowance, shall be listed under that associated Allowance.

**§ 9.3.1.3** Such applications may not include requests for payment of amounts the Contractor does not intend to pay to a Subcontractor or material supplier because of a dispute or other reason.

**§ 9.3.1.4** All supporting data requested by the Construction Manager and Architect from Subcontractors and material suppliers necessary to substantiate the Contractor's right to payment shall be furnished by the Contractor.

**§ 9.3.1.5** Until the Contract-scheduled date of Substantial Completion (including authorized adjustment), the Owner shall pay 95% of the amount due the Contractor on account of progress payments, less an amount equal to 250% of the amount of any Claims, liens, or judgments against the Contractor which have not been satisfactorily discharged.

**.1** Retainage resulting from § 9.3.1.5 shall be 5% plus an amount equal to 200% of the amount of any Claims, liens, or judgments against the Contractor which have not been satisfactorily discharged.

**.2** At Substantial Completion, when satisfied with the progress of the Work, the Owner, with Consent of Surety, may adjust the amount retained from previous progress payments in accordance with § 9.8.3.


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**.3** The full retainage may be reinstated if the manner of completion of the Work and its progress do not remain satisfactory to the Owner and the Architect, if the Surety withholds his consent or for other good and sufficient reasons.

**§ 9.3.1.6** Each Contractor shall submit three (3) final copies of their Application for Payment, incorporating those revisions noted on the pencil copies, to the Construction Manager within two (2) days after being notified that the draft copy, with revisions, is acceptable.

**§ 9.3.1.7** The final copies of each Application for Payment (AIA Form G732-2019) shall be signed by an officer of the Contractor whose signature shall be notarized in the space provided.

**§ 9.3.1.8** Applications shall be based on the completed Work as described above less retainage, and less the aggregate of previous payments. Change Orders when approved shall be listed at the bottom of the last sheet of the payment application.

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

**§ 9.3.2.1** Procedures required by Owner shall include, but are not necessarily limited to, submission by the Contractor to the Construction Manager and Architect of bills of sale and bills of lading for such materials and equipment, provision of opportunity for the Construction Manager's and Architect's visual verification that such materials and equipment are in face in storage; and, if stored off-site, submission by the contractor of verification that such materials and equipment are stored in a bonded warehouse.

**§ 9.3.2.2** All such materials and equipment, including materials and equipment stored on-site but not yet incorporated into the Work, and upon which partial payments have been made, shall become the property of the Owner. The care and protection of such materials and equipment shall remain the responsibility of the Contractor until incorporation into the Work, including property storage and maintenance of insurance coverage against theft, damage and fire on a replacement cost basis without voluntary deductible.

**§ 9.3.2.3 Stored Materials**

**.1** If the Contractor intends to request payment for materials stored on the site in accordance with the provisions of the Contract Documents, he must identify same on the current Contractor's Application for Payment form. The value of **previous** months' "stored materials" shall be included in the "Work Completed" column of the current application.

**.2** The relationship of labor and materials as indicated on the Payment Application shall be the basis for establishing the rate of payment for the transfer of material stored to materials installed.

**.3** All such materials and equipment, including materials and equipment stored on-site but not yet incorporated into the Work, upon which partial payments have been made, shall become the property of the Owner.

**.4** Payment for stored materials shall be in the amount of 95% of the value of stored materials less 5% retainage.

**§ 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.

**§ 9.3.3.1** The Contractor shall keep the Owner and the Owner's property (including funds for payment under the Project) free from all liens, legal or equitable, arising out of Contractor's Work hereunder. If any such lien is filed with


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the Owner by anyone claiming by, through or under the Contractor, the Contractor shall discharge the lien within 10 days of the filing thereof. The Contractor further expressly agrees to defend the Owner, at the Contractor's sole expense, against any actions, lawsuits or proceedings brought against the Owner as a result of liens filed against payments due the Contractor or the Work, the site of any of the Work, the Project site and any improvements thereon or any portion of the property of the Owner. The Contractor hereby agrees to indemnify and hold the Owner harmless against any such liens or Claims of lien and agrees to pay any judgment or lien resulting from any such actions, lawsuits or proceedings. The Owner agrees to release any payments with as a result of a duly filed lien, upon compliance by the Contractor with the applicable discharge or vacatur provisions of the Lien Law.

**§ 9.3.4** The Contractor and all of its subcontractors shall submit to the Owner, within thirty (30) days after issuance of their first certified payroll and every thirty (30) days thereafter, a transcript of the original certified payroll record, as provided by the Labor Law, subscribed, and affirmed as true under the penalties of perjury for the Contractor and all its Subcontractors. Failure to do so shall be cause for the Owner to withhold payment until such records are received.

**§ 9.3.5** When the Construction Manager or Architects requires substantiating information, submit data justifying dollar amount in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description."

**§ 9.3.6** The Contractor further expressly undertakes to defend the Owner, at the Contractor's sole expense, against any actions, lawsuits or proceedings brought against Owner as a result of liens filed against the Work, the site of any of the Work, the project site, and any improvements thereon, payments due the Contractor or any portion of the property of any of the Owners (referred to collectively as liens in §9.3.3). The Contractor hereby agrees to indemnify and hold Owner harmless against any such liens or claims of lien and agrees to pay any judgment or lien resulting from any such actions, lawsuits, or proceedings.

**§ 9.3.7** The Owner shall release any payments withheld due to a lien or a claim of lien if the Contractor obtains security acceptable to the Owner or a lien bond which is: (1) issued by a surety acceptable to the Owner, (2) in form and substance satisfactory to the Owner, and (3) in the maximum amount prescribed by law. By posting a lien bond or other acceptable security, however, the Contractor shall not be relieved of any responsibilities or obligations under this § 9.3, including, without limitation, the duty to defend and indemnify the Indemnities. The cost of any premiums incurred in connection with such bonds and security shall be the responsibility of the Contractor and shall not be part of, or cause any adjustment to, the Contract Sum.

**§ 9.3.8** The Contractor agrees to waive any right which it may have to assert a mechanic's or other lien against the Project site and any improvements thereon, including, without limit, the Work itself. Furthermore, the Contractor will cause a similar provision, waiving any right to a mechanic's or other lien against the property, to be included in all of its subcontracts, any subcontracts, and all contracts with material suppliers. Upon execution of the Agreement, the Contractor shall also execute the waiver of lien attached to the Agreement and made a part thereof as an Exhibit.

**§ 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


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Project Application and Certificate for Payment; (4) certify the amount the Construction Manager determines is due all Contractors; and (5) forward the Summary of Contractors' Applications for Payment and Project Application and Certificate for Payment to the Architect.

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

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

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

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

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

### § 9.5 Decisions to Withhold Certification

**§ 9.5.1** The Construction Manager or Architect may withhold a Certificate for Payment or Project Certificate for Payment in whole or in part, to the extent reasonably necessary and as permitted by State Law, 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;


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.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;
.7 repeated failure to carry out the Work in accordance with the Contract Documents; or
.8 any other breach of this Agreement.

**§ 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 30 days after receipt, 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** Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any


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tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

**§ 9.6.9** Upon Substantial Completion of the entire Work, the Contractor shall submit a requisition for the "contract balance". The Owner shall pay the remaining amount less the greater value of a lump sum of $10,000 OR the sum of two- and one-half times the value of any items to be completed plus an amount necessary to satisfy any outstanding Claims, liens, or judgments against the Contractor. Until all remaining items of Work are satisfactory completed or corrected, the Owner may hold all retainage, including monies for all "uncompleted" items, until all items are completed, and closeout submittals are complete.

**§ 9.6.9.1** Contractors' requests for discontinuance of retainages shall be accompanied by a properly executed copy of the "Consent of Surety to Reduction in or Partial Release of Retainage", AIA Document G707A.

**§ 9.6.10 Retainage**

**§ 9.6.10.1** Applications for Payment shall include a retainage amount of not less than five percent (5%) of the value of the completed work. Reduction of retainage shall only be approved upon completion of the Work and when authorized by the Owner in writing.

**§ 9.7 Failure of Payment**

If the Construction Manager and Architect fail persistently to issue a Certificate for Payment or a Project Certificate for Payment, through no fault of the Contractor, within fourteen days after the Construction Manager's receipt of the Contractor's Application for Payment, or if the Owner fails persistently to pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Construction Manager and Architect, then the Contractor may, upon thirty additional days' notice to the Owner, Construction Manager and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

**§ 9.8 Substantial Completion**

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

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

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

**§ 9.8.3.1** No partial payments will be made after the time fixed for the completion of the Work or the time to which completion may be extended under the terms of the Contract, until the full and final completion and acceptance of all Work herein agreed upon.

**§ 9.8.3.2** Where project includes heating and/or air conditioning or other systems that are not put into operation at the time of occupancy, a sum shall be withheld until these systems have operated to the general satisfaction of the Architect. The retained amount shall approximate 5% of the cost of the systems as determined by the cost breakdown submitted.


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**§ 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 or this Agreement.

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

**§ 9.8.6** If the Architect and/or the Construction Manager are required to inspect the Work more than two (2) times prior to certifying the Work as being substantially complete on account of the discovery of one or more items that are not sufficiently complete, the Contractor shall be liable to the Owner for the amount of any costs, additional fees or compensation due from or paid by the Owner to the Architect and/or the Construction Manager for the additional inspections.

### § 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. The Contractor will provide the Owner and Construction Manager with photographs documenting the condition of the space to be occupied. The photographs must be dated and supplied within three (3) business days of the inspection. Any subsequent damage to the space which cannot be confirmed by the Contractor's photographs (as occurring as a result of the Owner's occupancy) will be repaired by the Contractor at no additional cost to the Owner.

**§ 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


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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** If the Work is not accepted by the Owner after final inspection and additional time is required to complete items identified during the final inspection, the date starting the one-year correction period described in Article 12 shall be set by the Architect at its discretion.

**§ 9.10.1.2** If the Architect and Construction Manager are required to perform additional inspections subsequent to the "final inspection" because the Work fails to comply with the requirements of the Contract, the amount of compensation paid to the Architect and Construction Manager by the Owner for additional services shall be deducted from the final payment to the Contractor.

**§ 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.

(a) 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.

**§ 9.10.2.1** In addition to the submittals requested in § 9.10.2 above, the Contractor shall submit releases or waivers of liens from each Subcontractor, material supplier, and others with lien rights against the property of the Owner and shall submit a list of such parties.

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

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

**.1** liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;

**.2** failure of the Work to comply with the requirements of the Contract Documents;

**.3** terms of special warranties required by the Contract Documents;

**.4** audits performed by the Owner, if permitted by the Contract Documents, after final payment; or

**.5** Costs, loss or damages sustained, either prior to or subsequent to such payment, as a result of any breach of the Contract, or any wrongful act or omission of the Contractor or any Subcontractor.


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

## ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

### § 10.1 Safety Precautions and Programs

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

**§ 10.1.1** Contractor is fully responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work and the Work site consistent with applicable laws and regulations, and generally accepted standards in the construction industry. Contractor acknowledges and agrees that it is fully responsible for the supervision and control of the Work and of Contractor's employees, subcontractors and/or suppliers, (and any party employed directly or indirectly by any of them, or for whom any of them are legally responsible) and the means, methods and manner in which the Work is performed.

**§ 10.1.2** Contractor specifically agrees to provide all necessary equipment, give all required notices, perform all required tests, and to employ all necessary safety measures and procedures to protect its employees, agents, subcontractors, and all other persons at t5he Project site from any hazards created directly or indirectly by Contractor's operation or performance of the Work, and any hazards which are not created by Contractor's operations or performance of the Work to which such parties are exposed at the Project site as a result of Contractor's operations or performance of the Work. In the event that equipment or safety devices are required, Contractor agrees that it wil obtain such equipment or safety devices and employ same at its sole expense, and will strictly adhere to all provisions of the Occupational Safety and Health Act, as well as any State statues, codes, rules and regulations pertaining to the safety or property as may be deemed applicable to the Contractor's work or the work of any person or party directly or indirectly employed by Contractor or for whom contractor is responsible. Contractor agrees that it shall be Contractor's sole responsibility to ensure that each of its employees, subcontractors and suppliers are also fully aware and in compliance with all such statutes, codes, rules and regulations at all times.

**§ 10.1.3** From the commencement until the acceptance of the Work, Contractor shall be solely responsible for the care of the Work covered by the Contact and for the materials, supplies and equipment delivered at the Site intended to be used in the Work, and all injury or damage to the same from whatever cause shall be made good at this expense before the final payment is made. Contractor shall provide suitable means of protection for and shall protect all materials intended to be used in the Work, all work in progress, and all completed work. Contractor shall take all necessary precautions to prevent injury or damage to the Work by flood, fire freezing or from inclemencies of the weather.

**§ 10.1.4** Not by way of limitation of the foregoing, at the end of each workday, Contractor shall secure all power tools and other potentially dangerous tools and equipment and shall remove means of access to areas of the Work site, so as to further protect the safety of occupants of the premises during such off-work hours.

**§ 10.1.5** Contractor's obligations under this section are not dependent upon any question of negligence on it part or on the part of its officers, agents, servants or employees, and neither the approval by the Architect or the Owner to Architect to call attention to improper or inadequate methods or to require a change in methods nor the neglect of the Architect or the Owner to direct Contractor to take any particular precautions or to refrain from doing any particular thing shall excuse the Contractor from his obligations hereunder in case of any such injury to person or damage to property. The provisions of this section are intended for the sole benefit and protection of the Owner and shall not create any cause of action in favor of any person, corporation entity, other than the Owner.

### § 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;


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.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.

**§ 10.2.2.1** The Contractor acknowledges that certain applicable laws, including, but not limited to, Sections 240 and 241 of New York State Labor Law, may impose liability on the Owner for injuries to persons employed by the Contractor or by its Subcontractors or Sub-subcontractors. As between the Owner and the Contractor (or any of the Contractor's Subcontractors or Sub-subcontractors or any persons for which any of them shall be responsible), the Contractor shall be solely responsible for compliance with all such laws to the extent they pertain to the safety or protection of persons on the Project site or performing the Work. Any claim, charge, penalty or cause of action arising out of or on account of any such law shall be subject to Section 3.18.

**§ 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**

**Injury or Damage to Person or Property.** If the Contractor suffers injury or damage to persons or property because of an act or omission of the Owner or of any of the Owner's employees or agents or any others for whose acts the Owner is legally responsible, the Contractor shall give written notice thereof to the Owner and the Architect within a reasonable time not exceeding 2 days after first observance. The notice shall provide sufficient detail to enable to Owner to investigate the matter. If a Claim for additional cost or additional time is related to this Claim, it shall be made in accordance with the provisions of Article 15.

**§ 10.2.9 Restoration**. If during the construction, public or private property is damaged or destroyed as a result of its Work, the Contractor responsible shall, at its own expense, restore such property to a condition equal to that existing before such damage or injury was done, by cleaning up, repairing, rebuilding or replacing it, or otherwise making good such damage or destruction in an acceptable manner.


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**§ 10.2.10 OSHA**. In addition to all requirements set forth herein, all Contractors and Subcontractors who perform any Work under this Contract will fully comply with the provisions of the Federal Occupational Safety and Health Act (OSHA) of 1970 and with any rules and regulations pursuant to the Act. This requirement shall apply continuously and not be limited to normal Working hours. The duty of the Construction Manager, Architect to conduct construction review of the Contractor's or its Subcontractor's performance is not intended to include review of the adequacy of the Contractor's or its Subcontractor's safety measures in, on or near the construction site or buildings.

**§ 10.2.11 Welding**:

**.1** All welding shall be done in accordance with the American Welding Society Code for Arch Welding Society, certified for current year.

**.2** When cutting or welding is to be done, the Owner **MUST** be notified prior to start. In addition, the Contractor for the Work shall provide a **fire guard** with proper fire extinguisher for duration of cutting and welding work.

**.3** A welding curtain is to be installed around area where welding or cutting is to be done. No welding machines will be ties into electric panels without express permission from the Owner. Portable gasoline driven generators may **not** be used without the expressed permission of the Owner.

**.4** Obtain Owner's permission for each location in existing building where welding is required. Owner's stipulated requirements shall be adhered to.

**§ 10.2.12 Open Burning**. Open burning on the site is prohibited. All possible precautions shall be taken to prevent fires.

**§ 10.2.12.1** The Contractor shall be required to keep fire alarm operational at all times or provide fire watch approved by Fire Marshal.

**§ 10.2.13** When all or a portion of the Work is suspended for any reason, the Contractor shall securely fasten down all coverings and protect the Work from damage by any cause.

**§ 10.2.14** The Contractor shall promptly report, in writing, to the Construction Manager, Architect and the Owner all accidents arising out of or in connection with the Work that causes property damage, personal injury or death, giving full details and statements of any witnesses. In addition, if death, serious personal injury or serious property damage is caused, the accident shall be reported immediately by telephone or messenger to the above parties."

**§ 10.2.15** The Contractor shall be solely responsible for the conditions which develop during construction and in the event any structure is dislocated, over strained, or damaged so as to affect is usefulness, the Contractor shall be solely responsible. The Contractor shall take whatever steps necessary to strengthen, relocate or rebuild the structure to meet requirements.

**§ 10.2.16** Free access to fire hydrants and standpipe connections shall be maintained at all times during construction operations, and portable fire extinguishers shall be provided by the Contractor and made conveniently available throughout the construction site. The Contractor shall notify its employees and subcontractors of the location of the nearest fire alarm box at all locations where the work is in progress.

The Contractor agrees that any unsatisfied claim of the Owner and/or Construction Manager arising from obligations in this Article 10 shall be set off or deducted from payments due the Contractor.

**§ 10.2.17** No equipment, other than equipment with rubber tires, will be allowed on any existing or new pavement within the limits of the contract, UNLESS THE PAVEMENT HAS BEEN FIRST PROTECTED WITH PLANKING OR BY OTHER MEANS APPROVED BY THE CONSTRUCTION MANAGER.

**§ 10.2.18** From the commencement to the completion of the Project, the Contractor shall keep the parts of the work and the buildings free from accumulation of water no matter what the source or cause of water.

**§ 10.2.19** The Contractor shall be responsible for all costs incurred by the Owner caused by false security alarms set off by the Contractor. Costs shall include custodial response charges, Construction Manager's charges, etc.


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**§ 10.2.20** Temporary partitions are to be constructed where shown on drawings or where otherwise required for safety of the public or to prevent dust from entering occupied areas. Partitions shall be dustproof from floor to ceiling (if existing condition is a drop in tile ceiling, Contractor shall remove tile and install partition to structure above). In addition to framing and sheetrock partition to have plastic on the work area side. If an access door is required, an alternating 3 layer plastic system shall be used. The door shall be a standard hollow metal door with lockset and closer. Keys shall be distributed to the prime contractors, Owner and Construction Manager.

**§ 10.2.21** During construction, the General Contractor shall be responsible for maintaining a watertight structure. This shall include additions and existing buildings. The Contractor shall be responsible for temporary roofing, tarps, and other protection at roofs, cavity walls, etc. Should the Contractor fail to provide adequate protection, causing flooding, damage, or other disturbance to the existing building, Contractor shall be responsible for all costs associated with clean up and repairs. Inasmuch as flooding and damage have safety implications to the general public, clean up and repairs may be made by the Owner without warning to the Contractor. Administration costs incurred by the Owner, Construction Manager and Architect will also be back charged to the Contractor. The Contractor, by entering into contract with the Owner agrees to be liable for these costs.

**§ 10.2.22** The Contractor and their Subcontractors shall indemnify and hold harmless the Owner, Architect, Construction Manager and any of their employees from any and all claims, damages, losses, suits, obligations, fines, penalties, costs charges and expenses which may be imposed upon or incurred by or asserted against any of them by reason of any act or omission of such Contractor or any Subcontractor or any person or firm directly or indirectly employed by such Contractor, for any above suits, obligations, charges and/or expenses imposed upon the Construction Manager for the act and/or omissions of any Contractor or Subcontractor that resulted in an incident and/or accident causing personal injury and/or property damage.

**§ 10.3 Hazardous Materials**

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

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

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


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

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

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

**§ 10.4 Emergencies**

**§ 10.4.1 1** In an emergency affecting life, the Work, or the Owner or Owner's property, Contractor, without special instructions or authorization from Construction Manager or Architect, shall take the action necessary to deal adequately with such emergency. Notice of any such action shall be given by Contractor to Construction Manager, Architect and Owner as soon as is practicable, but not later than 2 days following the occurrence.

## 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 occurrence-based insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located and rated B+ or better by A.M. Best Company and to which the Owner has no reasonable objection. 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.

**§ 11.1.1.1** Within the time period set by the Owner after award of the Contract, and before the effective date of the Agreement, the Contractor shall cause the authorized representative of the insurance company to completely fill out and execute the Certificate of Insurance form which is bound with the Agreement section of the Contract Documents, such instrument certifying the kinds and amounts of insurance being issued, including statement that coverage provided under the policies will not be canceled or materially changed until at least 30 days prior written notice has been given to the Owner. The Contractor shall also furnish the Owner one (1) duplicate of the original policy covering each kind of insurance issued. Each subcontractor shall follow the identical procedure, and it shall not commence work until the Certificate of Insurance, including any requested duplicate policies, has been submitted to and approved by the Owner. The Contractor shall furnish to the Owner insurance certificates for all subcontractors with the amount of insurance as required herein. Contractor shall include New York Construction Certificate of Liability Insurance Addendum – Accord Form 855 with the Certificate of Insurance.

**§ 11.1.1.2** All claims against the Contractor or its subcontractors, arising from the performance of the work or conditions incidental thereto, must be investigated immediately by the insurance company furnishing the applicable coverage. The Contractor shall require the insurance company to furnish, to the Architect and Owner, written reports following the investigation and the disposition of each claim or demand by the owner; a status report shall be provided to the Owner and Architect on all claims more than two months outstanding.

**§ 11.1.1.3** All insurance coverage furnished by subcontractors shall remain in force until their work has been completed and the subcontractor does not intend to gain further access to the site, and the Contractor has released said subcontractor from further liability associated therewith. All liability insurance furnished by the Contractor shall remain in force during the time intervals defined Article 8 – Time in General Conditions of the Contract for Construction and Supplementary Conditions. All property insurance furnished by Contractor shall remain in force until Owner approves Architect's Certificate of Substantial Completion and has made final payment to Contractor.

**§ 11.1.1.4** The kinds and amounts of insurance are as follows:


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.1 **Worker's Compensation and Employer's Liability**: A policy shall be issued in compliance with the provisions of the Worker's Compensation Law.

.2 **Non-Occupational Disability Benefits**: A policy shall be issued in compliance with the provisions of the Disability Benefits Law.

.3 **Comprehensive General Liability** having limits of not less than:

| | |
|---|---|
| General Aggregate (except Products Complete & Operations) | $2,000,000 |
| Products Complete & Operations Aggregate | $1,000,000 |

.4 **BODILY INJURY LIABILITY + PROPERTY DAMAGE LIABILITY** having limits of not less than the following:

| | |
|---|---|
| Combined single limit | $1,000,000.00 Each Occurrence |
| | $2,000,000.00 Aggregate |

for all damages arising during the life of the Contract, and shall include at least the following designated hazards:

a. Premises and Operations
b. Independent Contractors
c. Completed Operations, including products
d. Broad Form Property Damage, including "XCU" (explosion, collapse, and underground)
e. Contractual Liability, covering indemnification assumed per requirements of Article 11 (AIA Document A232 -2019 General Conditions of the Contract for Construction, Construction Manager as advisor edition and Supplementary Conditions.
f. Fire damage.
g. Personal and Advertising Injury with Employment Exclusion deleted.
h. Labor Law coverage is mandatory for all General Liability Policies.

Completed projects shall carry General Liability coverage for 2 years after substantial completion.

.5 **Pollution/Special Hazards Liability:** Provide coverage for legal liability and expense for damage to property or bodily injury and death with respect to the removal, disturbance, handling, and disposal of contaminated or hazardous materials under this contract by the Contractor or any person or organization employed directly or indirectly by the Contractor. (NOTE: This coverage is required only for those contracts which contain work involving Asbestos Abatement Lead Hazard Control work, PCB Containing Material Removal, or Petroleum Remediation.) If included in Contractor's Umbrella Policy, this shall be detailed in the Umbrella Policy Documents.

| | |
|---|---|
| Combined single limit | $1,000,000.00 Each Occurrence |
| | $2,000,000.00 Aggregate |

.6 **Comprehensive Automobile Liability** (including non-owned and hire automobiles), having limits of liability not less than $1,000,000.00.

.7 **Umbrella Liability** (mandatory):

$2,000,000.00 for Contracts under $2,000,000.00
$5,000,000.00 for Contracts exceeding $2,000,000.00
$10,000,000.00 for Contracts exceeding $7,000,000.00
$15,000,000.00 for Contracts exceeding $10,000,000.00
Labor Law Coverage is mandatory for all Umbrella Liability Policies

.8 **Property Insurance (Builders Risk/Installation Floater)**: To be provided by the Owner.

Each Contractor is responsible for all tools, equipment, materials, Work, etc., until Substantial Completion and possession by the Owner. Each Contractor shall provide insurance for theft as he may require for himself, his Subcontractors, and his employees' protection). The insurance coverage referred to in this subparagraph shall be in accordance with a standard Builder's Risk Policy used in the State where the project is located.


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The Owner does not waive any rights of recovery or provide any waivers of subrogation for losses caused by negligent acts of the aforementioned parties. Any right of recovery or subrogation shall not affect payment of claims made by the Property Insurer to all the aforementioned parties including any negligent party.

**.9** **Owner's Protective Liability**: Furnish to the Owner complete Owner's Protective Liability Insurance in the amounts specified in Coverage .3 above for Personal Bodily Injury Liability Insurance and for Property Damage Liability Insurance.

**.10** **Additional Coverages**: The Architect, Construction Manager and Owner along with their respective officers, agents, and employees shall be named as additional insured for ongoing operations and products/completed operations on all Contractors' comprehensive general and automobile liability policies, bodily injury and property damage liability policies and umbrella liability policies which all must be primary and non-contributory with respect to additional insured's.

**.11** **Per Project Aggregate**: Provide full aggregate general liability limits of each project.

**.12** **Waiver of Subrogation**: To the fullest extent permitted by state law, a waiver of subrogation clause shall be added to the general liability, auto, and worker's compensation policies in favor of the Owner, its officers, agents, or employees with respect to this project. The Owner does not waive any rights of recovery or provide any waivers of subrogation for losses caused by negligent acts of the aforementioned parties. Any right of recovery or subrogation shall not affect payment of claims made by the Property Insurer to all the aforementioned parties including any negligent party.":

**§ 11.1.1.5** The Contractor shall not commence Work at the project site under this Contract until Contractor has obtained all the insurance required herein and until such insurance has been accepted by the Owner, nor shall Work be commenced on their subcontracts until the same insurance for the Subcontractors has been obtained. The Owner and Architect may request copies of subcontractors' insurance certificate(s) and are to be provided to Owner and Architect by the Contractor upon request.

**§ 11.1.2** Each Contractor shall furnish Bonds covering the faithful performance of the Contract and the payment of all obligations arising thereunder in the amount of 100% of the accepted bid on the form indicated in the Information to Bidders, with such Sureties as may be agreeable to the Owner. The Premiums shall be paid by the Contractor.

**§ 11.1.2.1** The Contractor shall deliver the required Bond dated as of the date of the Contract or applicable letter of intent, whichever is earlier, to the Owner no later than the date of execution of the Contract, or if the Work is commenced prior thereto in response to a Notice to Proceed, the Contractor shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such Bond will be issued."

**§ 11.1.2.2** The Payment and Performance Bonds shall be written on AIA Document A312 Series and the Warranty Bond shall be written on AIA Document A313-2020 or such other forms as the Owner may approve.

**§ 11.1.2.3** The Contractor 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.

**§ 11.1.2.4** The Contractor shall provide the name and address of Surety for process of service as well as supply the contact information for the Surety representative responsible for the Bond, including the individual's name, address, telephone number, fax number and email address."

**§ 11.1.2.5** The Performance and Payment Bonds shall remain in full force and effect through the warranty period.

**§ 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.

**§ 11.1.3.1** The Contractor shall not commence Work at the project site under this Contract until Contractor has obtained all the insurance required herein and until such insurance has been accepted by the Owner, nor shall Work be commenced on their subcontracts until all similar insurance required of the Subcontractors has been obtained and accepted by the Owner.


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

**§ 11.2 Owner's Insurance**

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

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

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

**§ 11.3 Waivers of Subrogation**

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


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**§ 11.3.1.1** As relates to § 11.3, the Owner does not waive any rights of recovery or provide any waivers of subrogation for losses caused by negligent acts of the aforementioned parties. Any right of recovery or subrogation shall not affect payment of claims made by the Property Insurer to all the aforementioned parties including any negligent party.

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

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

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

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

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

**§ 11.5.2** Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

**§ 11.6 Appearance of Counsel**

**§ 11.6.1** If an action for bodily injury and/or property damage is commenced against Owner or Architect, which in the opinion of the Owner's Architect's legal counsel or insurance coordinator is covered by the indemnity provisions of Article 3, Contractor shall, upon Owner's written request, promptly cause Contractor's insurance carrier to have its attorneys appear timely in the action on behalf of Owner and/or Architect and provide the defense of Owner and/or Architect.

## 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.


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If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

**§ 12.2 Correction of Work**

**§ 12.2.1 Before Substantial Completion**

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

**§ 12.2.2 After Substantial Completion**

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

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

**§ 12.2.2.3** The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2. *Exception*: Any correction made under this 12.2.2 or under any other guarantee or warranty required by or included in the Contract Documents shall likewise be subject to correction at Contractor's own expense if it is found not to be in accordance with the Contract Documents within one year after the date that such correction is accepted by the Owner.

**§ 12.2.2.4** The guarantee-warrantees required by § 12.2.2 shall be written in a form acceptable to the Owner, properly sworn to and signed by a responsible officer of the Contractor's firm.

**§ 12.2.2.5** The Performance and Payment Bonds shall remain in effect and full force through this period.

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

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

**§ 12.2.5** Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

**§ 12.3 Acceptance of Nonconforming Work**

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


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**§ 12.3.1** The Owner, with the advice of the Construction Manager and assistance of the Architect, shall determine the adjustment to the Contract Sum. The Contractor shall bear all direct, indirect and consequential costs attributable to the evaluation of and decision to accept such defective Work. Such costs for the efforts of the Construction Manager and Architect (at their current billing rates) and any other costs to the Owner will be charged to the Contractor through Change Order procedures.

## ARTICLE 13 MISCELLANEOUS PROVISIONS

### § 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located.

### § 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.

*(Paragraph deleted)*

### § 13.3 Rights and Remedies

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

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

### § 13.4 Tests and Inspections

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

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

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

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


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**§ 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.

**§ 13.4.7** Upon request the Contractor shall deliver test samples of any of the materials specified in these specifications to an independent testing agency. The Owner shall pay for the test of samples, which are found to conform to the specifications. The Contractor shall pay for the tests of samples, which do not conform to the specifications. This shall not relieve the Contractor of his obligations to perform specific tests described elsewhere in these specifications.

**§ 13.4.8** Where the specifications require part of the work to be specially tested and approved, it shall not be tested or covered up without timely notice thereof or consent thereto. Should any part of the work be covered up without notice, approval or consent, such part of the work shall be uncovered for examination at the Contractor's expense if the Owner shall so require.

**§ 13.4.9** Where operating tests are specified, the Contractor shall test the work as it progresses, on his own account, and shall make satisfactory preliminary tests in all cases before applying for official tests.

**§ 13.4.10** Tests shall be made in the manner specified, for the different branches of the work. Each test shall be made on the entire system for which such test is required, wherever practical. In case it is necessary to test portions of the work independently, the Contractor shall do so.

**§ 13.4.11** Should defects appear, they shall be corrected by the Contractor and the test repeated until the installation is acceptable.

**§ 13.4.12** When notice of tests is to be given to the Architect, it shall also be given to the Owner's Representative.

**§ 13.4.13** All paragraphs wherein the Architect is entitled to additional compensation from the Contractor shall be revised to reflect that the Owner's Representative is also so entitled.

### § 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at a rate of 1% per annum.

## ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

### § 14.1 Termination by the Contractor

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

- **.1** Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- **.2** An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- **.3** Because the Construction Manager has not certified or the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- **.4** The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

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


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**§ 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, and upon the failure of the Owner to cure the alleged grounds for termination within 14 days following receipt of said notice, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

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

### § 14.2 Termination by the Owner for Cause

**§ 14.2.1** The Owner may terminate the Contract if the Contractor

- **.1** 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 breach of a provision of the Contract Documents.
- **.5** files for bankruptcy or other debtor insolvency relief;
- **.6** an act of omission by the Contractor that stops, delays, interferes with or damages the Work;
- **.7** any other failure by the Contractor to perform any other terms and conditions of their Contract;
- **.8** disregards the authority of the Owner.

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

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

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

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

### § 14.3 Suspension by the Owner for Convenience

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

**§ 14.3.2** The Contract Time shall 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.


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

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

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

**.1** cease operations as directed by the Owner in the notice;

**.2** take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and

**.3** except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

**§ 14.4.3** In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed.

## 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. The Owner may, but is not required to, comply with the provisions of Article 15 when filing a Claim.

**§ 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.

**§ 15.1.2.1** An additional Claim made after any initial Claim has been filed with the Owner, Construction Manager and Architect will not be considered unless submitted in a timely manner and in accordance with Article 15."

**§ 15.1.2.2** Any Claim shall be sufficiently detailed and descriptive to allow for a complete evaluation. The Contractor shall furnish any information requested by the Owner or Architect in connection with this investigation within ten (10) business days of that request. Failure to provide the requested information shall constitute a waiver of the Claim.

**§ 15.1.2.3** All written Claims for additional cost, additional time, or damages shall include the time of occurrence, location and other identifying factors and shall be supported, at a minimum, by letters, photographs, journals and diaries, instructions, or other pertinent and applicable records, as the Architect and Owner may require.

**§ 15.1.3 Notice of Claims**

**§ 15.1.3.1** Claims by other parties or the 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 Owner 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 the Contractor under this Section 15.1.3.1 shall be initiated within 15 days after occurrence of the event giving rise to such Claim or within 15 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

**§ 15.1.3.2** Claims by other parties or the 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** An additional Claim made after any initial Claim has been filed with the Owner and Architect will not be considered unless submitted in a timely manner and in accordance with Article 15.

**§ 15.1.3.4** Claims by the Contractor must be made by written notice in accordance with the following procedures:


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**.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 and Architect. 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
    1) Index of Issues (listed numerically)
    2) For **each** issue:
        (a) Background
        (b) Chronology
        (c) Contractor's position (reason for Owner's potential liability)
        (d) Supporting documentation of merit or entitlement
        (e) Begin each issue on a new page
D. 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.
E. Productivity exhibits (if appropriate)
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, 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.

**.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 Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

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

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


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**§ 15.1.6 Claims for Additional Time**

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

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

**§ 15.1.7 Waiver of Claims for Consequential Damages.** The Contractor waives all Claims against the Owner for consequential damages arising out of or relating to this Contract. This
*(Paragraphs deleted)*
waiver includes, but is not limited to, damages incurred by the Contractor for principal office expenses, including the compensation of personnel stationed there, for losses of financing, business losses and reputation damage, and for loss of profit. This waiver also is applicable, without limitation, to all consequential damages due to Owner's termination of the Contract in accordance with Article 14, and the Contractor's sole rights to payment in the event of any termination of the Contract by the Owner are limited to the payments expressly set forth in Article 14.

**§ 15.1.8 Limitation and Waiver of Money Damages**

**§ 15.1.8.1** Notwithstanding anything else set forth in the Contract Documents or otherwise, 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, impacts on schedule, schedule acceleration, schedule compression or by any breach of contract, delay in performance or other act of neglect by other Contractors or Subcontractors having Contracts for performance of any portion of Work. Except to the extent, if any, expressly prohibited by law the Contractor agrees not to make any Claim for such damages. 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. The Contactor understands that it hereby agrees not to make, and hereby waives, any Claim for damages for delay from any cause whatsoever, including but not limited to, those resulting from increased labor or material costs; schedule acceleration, schedule compression, directions given or not given by the Construction Manager, Owner or Architect, including but not limited to scheduling and coordination of the Work; the Architect's preparation of Drawings and Specifications; the Architect's review of shop drawings and requests for instruction(s); or on account of any delay, obstruction or hindrance for any other 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 no monetary recovery may be obtained by the Contractor for any of the foregoing against the Owner, Construction Manager or the Architect based upon any reason, and it is emphasized that the Contractor's sole remedy for any of the foregoing shall be an extension of time, if appropriate.

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

**§ 15.2.2** The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, (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, or (6) submit a schedule to the parties indicating when the Architect expects to take action.


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

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

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

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

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

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

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

### § 15.3 Mediation

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

**§ 15.3.2** The parties shall endeavor to resolve their Claims by mediation. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.

**§ 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 Litigation

**§ 15.4.1** Claims that have not been satisfactorily resolved by other means shall be subject to litigation in accordance with law. The Contractor shall comply with any applicable statutory requirements regarding Notice of Claim and with


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any applicable Statute of Limitations provisions. In the event the Contractor serves a Notice of Claim to the Owner, the Owner may, as a condition precedent to litigation, require the Contractor to submit to an examination under oath by an attorney or other representative of the Owner, and to provide documentary evidence reasonably requested in connection with the examination. The venue of any litigation shall be New York State Supreme Court in the county in which the Project is located. The prevailing party of the litigation shall be entitled to reasonable attorneys' fees and necessary disbursements.


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# *Additions and Deletions Report for*
## *AIA® Document A232® – 2019*

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**PAGE 1**

Alterations to MS/HS & New Varsity Baseball/Softball Dugouts/Storage
Port Jervis City School District
9 Thompson Street
Port Jervis, New York 12771

...

Savin Engineers
3 Campus Drive
Pleasantville, New York 10570

...

Port Jervis City School District
9 Thompson Street
Port Jervis, New York 12771

...

*(Name, legal status, and address)*

Bernier, Carr & Associates Engineers, Architects, and Land Surveyors, P.C.
798 Cascadilla Street
Suite C
Ithaca, New York 14850

**PAGE 3**

**§ 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,~~ include the Notice to Bidders, Information to Bidders, Form of Proposals, General Conditions, Specifications, Drawings, Addenda issued prior to execution of the Contract, ~~other documents~~ Agreement between Owner and Contractor("Agreement"), 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.~~or negotiated after receipt of bids or execution of the Agreement, and when required by Governmental Agencies or Departments, appropriately inserted Certifications, Regulations, and Wage Rate Schedules.

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**§ 1.1.2 The Contract.** The Contract Documents form the Contract for Construction. The Contract or Agreement 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,~~ the Architect as a representative of the Owner, or (7) between any persons or entities other than the Owner and Contractor. The Construction Manager and ~~Architect~~ Architect, as a representative of the Owner, shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of their duties.

Subcontractors shall assume the same obligations to the Contractors as the Contractor has to the Owner and the Architect under General Conditions AIA A232-2019 relationships and responsibilities of the Contractor to the Owner or Architect as defined in General Conditions AIA A232-2019 shall become those of the Subcontractor to the Contractor.

**§ 1.1.2.1** Where the term "Agreement", "Contract" or "Prime Contract" is used in the General Conditions, Supplementary General Conditions, and other Contract Documents, it shall mean the separate Owner-Contractor Agreement between the Owner and each individual Prime Contractor identified in Conditions of the Contract (General, Supplementary and other conditions)."

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**§ 1.1.11 Miscellaneous Definitions:**

**.1** The term "Addendum/Addenda" shall mean Changes to the Contract Documents prior to the receipt of bids which are made part of the Agreement.

**.2** The term "Herein" shall mean the contents of the Contract Documents and/or the contents of the particular section where this term appears.

**.3** The term "Indicated" as used herein shall mean shown on the Drawings or described in the Contract Documents. Terms such as "Shown", "Noted", "Scheduled" and "Specified" have the same meaning as "As Indicated".

**.4** The term "Concealed" as used herein shall mean items hidden from sight in such locations as trenches, chases, shafts, furred spaces, walls, slabs, above ceilings and in crawl spaces or service tunnels.

**.5** The term "Exposed" as used herein shall mean not "concealed" as defined herein and the spaces behind normally closed doors such as interiors of cabinets.

**.6** The term "Product" as used herein shall include materials, systems and/or equipment.

**.7** The term "Furnish" as used herein shall mean furnish and deliver to the job site all products necessary that are connected with the Work including unloading, handling, transporting, unwrapping, and inspecting those products to be installed.

**.8** The term "Install" as used herein shall mean furnish all labor and perform all operations connected with assembly, erection, anchoring, installation of products or Work, curing, finishing, cleaning and similar operations including supplying all necessary tools, rigging and equipment to do the Work, and connect up, test, place in operation and service such products.

**.9** The term "Provide" as used herein shall mean furnish and install, without limitation, all labor, products, materials, equipment, transportation, services, etc., required to install, complete the Work, and/or to test and place in operation/service.

**.10** The term "Modifications" shall mean changes to the Contract Documents subsequent to the commencement of the work.

**.11** The term "Piping" as used herein shall mean pipe, rigid conduit, fittings, valves, hangers, and other accessories, which comprise a system.

**.12** The terms "proper", "satisfactory", "workmanlike" and words of similarly implied interpretation, judgment, or opinion, shall be understood to mean "in the opinion of the Architect".

**.13** As used herein, the terms "General Contractor", "GC" and "General Construction Contractor" have the same meaning.

**.14** As used herein, the terms "Mechanical Contractor" and "MC" shall mean the same thing.

**.15** As used herein, the terms "Plumbing Contractor" and "PC" shall mean the same thing.

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**.16** As used herein, the terms "Electrical Contractor" and "EC" shall mean the same thing.
**.17** As used herein, the terms "Site Contractor" and "SC" shall mean the same thing.
**.18** As used herein, the terms "Roof Contractor" and "RC" shall mean the same thing.
**.19** As used herein, the terms "Asbestos Abatement Contractor" and "AAC" shall mean the same thing.
**.20** The term "project site" shall mean the space available to contractors at location of the project either exclusively or to be shared with other contractors for performance of Work.
**.21** The term "minimum requirements" shall mean indicated requirements are for a specific minimum acceptable level of quality/quantity, as recognized in the industry. Actual Work shall comply (within specified tolerances) or may exceed minimums within reasonable limits. Refer uncertainties to Architect before proceeding.
**.22** The term "basis of design" shall mean the material, product or manufacturer shown in the Contract Documents was selected to establish the minimum quality, performance and/or operation of the material or product.
**.23** The term "labeled" refers to classification by an approved Standards Agency.
**.24** As used herein, the term "Architect" shall also mean "Engineer" so duly licensed to "provide consulting services under a New York State License" and under Contract to provide professional services to the Owner."
**.25** The term "Warranty" shall mean a formal promise (guarantee)in writing that the contractor shall repair or replace a faulty product, material, or installation within the prescribed warranty period after Substantial Completion.
**.26** The term "General Conditions" shall mean the General Conditions of the Construction Contract, Construction Manager as Advisor Edition (AIA Document AIA A232-2019 Edition).

**§ 1.2.1** The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the ~~indicated~~ intended results.
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**§ 1.2.4** In the event of conflict or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

**.1** Contract (Agreement).
**.2** Modifications.
**.3** Addenda, with those of later date having precedence over those of earlier date.
**.4** Instructions to Bidders.
**.5** General Conditions of the Contract for Construction, Construction Manager as Advisor Edition.
**.6** Division 01 of the specifications.
**.7** Divisions 02 thru 49 of the specifications and drawings.
**.8** Other documents specifically enumerated in the Contract as part of the Contract Documents.

In the case of conflict or discrepancies between drawings and Divisions 02 thru 49 of the specifications or within or among the Contract Documents and not clarified by addendum, the Architect will determine which takes precedence.

**§ 1.2.5** Scaling Drawings for dimensions, if done, is done at the Contractor's own risk. All dimensions shown on the Drawings are subject to verification of actual dimensions by the Contractor. It is the responsibility of the Contractor to verify all dimensions in the field to insure proper and accurate fit of materials and items to be installed. Before ordering any materials or doing any Work, the Contractor and each Subcontractor shall verify all existing conditions and measurements. No extra charge or compensation will be allowed on account of differences between actual dimensions and the dimensions indicated on the Drawings. Any differences which may be found shall be submitted to the Construction Manager and Architect for resolution before proceeding with the Work."

**§ 1.2.6** Where items are specified by the use of a reference standard not bound in the specifications, the date of the reference standard shall be the latest edition as outlined in the Building Codes of New York State and/or except as specifically indicated otherwise.

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**§1.4.1** In the event of conflicts or discrepancies among the Contract Documents, interpretations will be as outlined under § 1.2.4.

**§ 1.4.2** In the event of inconsistencies within or between parts of the Contract Documents, or between the Contract Documents and applicable standards, codes and ordinances, the Contractor shall: (1) provide the better quality or greater quantity of Work, (2) comply with the more stringent requirement, or (3) either or both in accordance with the Architect's interpretation. The terms and conditions of this § 1.4.2, however, shall not relieve the Contractor of any of the obligations set forth in § 3.2 and § 3.7.

**§1.4.2.1** On the Drawings, given dimensions shall take precedence over scaled measurements and large-scale drawings over small-scale drawings. Scaling Drawings for dimensions, if done, is done at the Contractor's own risk.

**§1.4.2.2** Before ordering any materials or doing any Work, the Contractor and each Subcontractor shall verify measurements at the project site and shall be responsible for the correctness of such measurements. No extra charge or compensation will be allowed on account of differences between actual dimensions and the dimensions indicated on the Drawings. Any difference, which may be found, shall be submitted to the Architect for resolution before proceeding with the Work.

**§1.4.2.3** If a minor change in the Work is found necessary due to actual field conditions, the Contractor shall submit detailed drawings of such departure for review by the Architect before initiating the change.

**§ 1.4.3** The terms "knowledge", "recognize" and "discover", their respective derivatives and similar terms in the Contract Documents, as used in reference to the Contractor, shall be interpreted to mean that which the Contractor knows (or should know), recognizes (or should recognize) and discovers (or should discover) in exercising the care, skill and diligence required by the Contract Documents. The expression "reasonably inferable" and similar terms in the Contract Documents shall be interpreted to mean reasonably inferable by a Contractor familiar with the Project and exercising the care, skill and diligence required of the Contractor by the Contract Documents.

**§ 1.4.4** The phrase "persistently fails" and other similar expressions, as used in reference to the Contractor, shall be interpreted to mean any combination of acts or omissions, which causes the Owner or the Architect to reasonably conclude that the Contractor will not complete the Work within the Contract Time, for the Contract Sum or in substantial compliance with the requirements of the Contract Documents.

**§ 1.4.5** In the event of inconsistencies within or between parts of the Contract Documents, or between the Contract Documents and applicable standards, codes and ordinances, the Architect shall be the sole and final interpreter and will issue a written decision to the Owner and the Contractor within a reasonable time of written notification. The Architect's decision shall be conclusive and final.

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

...

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

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~~Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.~~

**§ 2.2.3** ~~After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.~~Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

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

**§ 2.3.1** ~~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.~~The Owner shall make available for inspection, upon request, that field survey or testing information of existing conditions, which is known to be available, and which is held by the Owner at their offices. Such records are not Contract Documents and the Owner makes no representation as to their accuracy or completeness.



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

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

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

**.1** Copies for Construction: The Prime Contractors will each be furnished without charge up to two (2) sets of Contract Drawings, Project Manuals and Bid Addendums for use during construction for their own use and the use of their Subcontractors.

**.2** Owner shall furnish additional sets upon a Contractor's written request. Such additional sets will be provided at the cost of printing, postage and handling. Partial sets will NOT be provided.

**.3** Subcontractors and other entities desiring copies of Drawings and other contract Documents shall obtain them from the respective Prime Contractor.

...

**§ 2.3.9** The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, the Contractors' means, methods, techniques, sequences, or procedures of construction or the safety precautions and programs incident thereto, or for any failure of the Contractor to comply with laws or regulations applicable to the

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furnishing or performance of the Work. Owner will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

...

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ~~ten-day~~ three-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.

**§ 2.5.1** In the event Contractor fails, refuses or neglects to perform closeout obligations, including without limitation performance of incomplete items as attached to the Certificate of Substantial Completion, within forty-five (45) days following the date of Substantial Completion or time frame mutually agreed upon between Owner and Prime Contractor, the Owner may, without further notice (except to inform the Contractor its attempt to cure is inadequate) and without prejudice to other remedies the Owner may have, correct such deficiencies. In such case, an appropriate Change Order shall be issued deducting from Payments then or thereafter due to Contractor the cost of correcting such deficiencies. Contractor shall be liable to the Owner for any additional costs, including without limitation, those charged by Architect, Attorneys, or others attributable to such failure, refusal, or neglect.

**§ 2.6 Owner's Rights for Use of Premises**

**§ 2.6.1** Whether Work of various Contractors is or is not partially or fully completed, the premises (site and buildings) are the property of the Owner who shall have certain rights and privileges in connection with use of same.

**§ 2.6.2** In such event, Contractor whose unfinished Work is performed subsequently shall be responsible for the prevention of any damage to such Owner's installation. Such use or occupancy by the Owner shall in no instance constitute acceptance of any of the Work.

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**§ 3.1.1.1** Where the words "Contractor", "Prime Contractor", or any reference to "each Contractor" occurs in the Contract Documents, they shall mean the person, firms or organization having a Contract for the Work as set forth in the Agreement.

**§ 3.1.1.2** The Contractor represents to the Owner that it possesses the skill, experience, and resources to perform the Work competently and diligently in an orderly and safe fashion and in accordance with the anticipated milestone and/or completion date(s) as applicable.

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**§ 3.2.2.1** The Contractor shall promptly notify the Construction Manager and Architect, in writing, of any inconsistencies or errors to provide the Architect ample time for observation, investigation, detail drawings, etc.

**§ 3.2.2.2** All Contactors submitting bid proposals shall be presumed to have examined the site to consider fully all conditions, which may have a bearing on the Work, and to have accounted for these conditions in their bid proposals.

**§ 3.2.2.3** When required, off-site storage is the responsibility of the Contractor.

**§ 3.2.2.4** The exactness of grades, elevations, dimensions, or locations indicated on the Drawings of Work installed by others is not guaranteed by the Construction Manager, Architect, or the Owner.

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**§ 3.2.2.5** Except as to any reported errors, inconsistencies and to concealed or unknown conditions referred to in § 3.7.4, by executing the Agreement, the Contractor represents the following:

**.1** The Contract Documents are sufficiently complete and detailed for the Contractor to (1) perform the Work required to produce the results intended by the Contract Documents and (2) comply with all the requirements of the Contract Documents.

**.2** The Work required by the Contract Documents, including, without limitations, all construction details, construction means, methods, procedure and techniques necessary to perform the Work, use of materials, selection of equipment and requirements of product manufacturers are consistent with: (1) good and sound practices within the construction industry; (2) generally prevailing and accepted industry standards applicable to Work; (3) requirements of any warranties applicable to the Work; and (4) all laws, ordinances, regulations, rules and orders which bear upon the Contractor's performance of the Work.

**§ 3.2.2.6** The Contractor shall satisfy itself as to the accuracy of all grades, elevations, dimensions, and locations indicated on the Drawings. Where the Work of this Contract connects or interfaces with existing or other Work, Contractor shall verify at the site all conditions of such existing or other Work. Any errors due to the Contractor's failure to verify such information shall be promptly remedied by the Contractor at no additional cost to the Owner.

**§ 3.2.2.7** Before ordering any materials or doing any Work, the Contractor and each Subcontractor shall verify all existing conditions and measurements. Any differences, which may be found, between actual measurements and dimensions indicated on the Drawings shall be submitted to the Architect for resolution before proceeding with the Work. No extra compensation will be allowed for such discrepancies.

**§ 3.2.3** ~~The Contractor is not required to ascertain that the Contract Documents are in accordance with~~ If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, ~~or lawful orders of public authorities, but the Contractor shall promptly report to the Construction Manager and Architect any nonconformity discovered by or made known to the Contractor as a request for information submitted to Construction Manager in such form as the Construction Manager and Architect may require.~~and lawful orders of public authorities.

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

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**§ 3.3.1.1** Laying out the work:

**.1** Each Contractor shall carefully lay out its Work in accordance with the Contract Documents and shall coordinate its Work with existing and new Work and it shall verify all lines and levels indicated in the Contract Documents that affect its Work.

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**.2** Adjustments required to suit field conditions shall be made only after the Construction Manager's and Architect's review. Each Contractor shall be responsible for the accuracy of layout and shall correct at its own expense any Work that his forces have laid out incorrectly.

**.3** Where equipment lines or piping and/or conduit are shown diagrammatically, the Contractor shall be responsible for the coordination and orderly arrangement of the various lines of piping and conduit included in the Work of its Contract. Contractor shall coordinate its work and prevent all interferences between equipment, lines of piping, architectural features, and avoid any unsightly arrangements in the exposed areas.

...

**§ 3.3.4 Shutdowns:** Such Work as connections to existing sewers, plumbing, heating, and electric systems, shall be done at a time agreeable to the Owner and Construction Manager and shall be determined and agreed to well in advance of the actual doing of such Work so as to interfere as little as possible with the operation and use of existing facilities. Shutdowns must be coordinated through the Construction Manager 48 hours prior to shut down. The continued uninterrupted operation of all facilities is essential. If any existing facilities must be interrupted, the Contractor for the Work shall provide all necessary temporary facilities and connections necessary for maintaining existing facilities. No mechanical, heating, plumbing, sprinkler, or electric services shall be interrupted at any time, except as approved in advance by the Owner. All communication systems must be maintained without interruption. As much related work as possible shall be performed prior to shut-downs, so as to minimize the period of shut-down. All material and manpower to do the work involved shall be at the job prior to interruption of services.

**§ 3.3.5** If the Work involves a School facility, the Contractor represents that it is familiar with and shall adhere to the "Uniform Standards for School Construction and Maintenance Projects" set forth at 8 New York Code of Rules and Regulations §155.5 (8 NYCRR 155).

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**§ 3.4.4 Equivalent Products**: Except as otherwise specified, whenever a material, article or piece of equipment is identified on the Drawings or in the Specifications by reference to manufacturer's or vendors' names, catalog numbers, or the like, it is so identified for the purpose of establishing a standard, and any material, article, or piece of equipment of other manufacturers or vendors which will perform adequately the duties imposed by the general design may be considered equally acceptable provided the material, article, or piece of equipment so proposed is, in the opinion of the Architect, of equal substance, appearance, size, function and performance. Such proposed product shall not be purchased or installed until approved by the Architect.

**.1** The Owner and the Architect will consider a formal request for the substitution of a product in place of the one specified only under the conditions set forth in the General Requirements (Contract, & General Conditions) on "EQUIVALENCY", of the Specifications) for each proposed substitution.

**.2** The Architect will be allowed ten (10) business days to evaluate each proposed substitution. The Architect will be the sole judge of equivalence, and no substitution shall be ordered, installed or utilized without the Architect's review process having been completed and the product accepted by written notification.

**.3** Owner may require Contractor to furnish at the Contractor's expense a special performance warranty or other surety with respect to any substitution.

**.4** The Architect will record time required by the Architect and the Architect's consultants in evaluating substitutions proposed by the Contractor and in making changes in the Contract Documents occasioned thereby. Whether or not the Architect accepts a proposed substitution, Contractor shall reimburse the Owner for the charges of the Architect and the Architect's Consultants for evaluating each proposed substitution. In the event Owner is not obligated to pay Architect for such costs incurred by the Architect in evaluating proposed Substitutions as Additional Services. Contractor shall pay Architect's additional cost for such evaluation directly to Architect as a third-party beneficiary under this Contract.

**.5** Full explanation of the proposed substitution and submittal of all supporting data including technical information, catalog cuts, warranties, test results, installation instructions, operating procedures, and other like information necessary for a complete evaluation of the substitution.

**.6** Reasons the substitution is advantageous and/or necessary, including the benefits to the Owner and Work in the event substitution is acceptable.

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**.7** The adjustment, if any, in the Contract Sum in the event the substitution is acceptable.

**.8** The adjustment, if any, in the time of completion of the contract and the construction schedule in the event the submission is acceptable.

**.9** Contractor shall demonstrate that the proposed substitution conforms and meets all the requirements of the pertinent Specifications and the Drawings; and the Contractor accepts the warranty and correction obligations in connection with the proposed substitution as if originally specified by the Architect. Proposals for substitutions shall be submitted to the Architect. Architect will review and make an informed decisions on proposed substitution within ten (10) business days.

**.10** Substitutions and alternates may be rejected with or without written explanation.

**.11** No substitute material shall be purchased or installed by the Contractor without the Architect's written approval. Material that, in the Architect's opinion, is inferior to that specified or is unsuited for the intended use will be rejected. The Architect's decision regarding acceptance of equals shall be final. The risk of whether a proposed substitution will be accepted is borne by the Contractor. No requests for substitution will be considered unless the Architect determines that such substitution is in the best interest of the Owner under the conditions set forth in the Contract Documents.

**.12** By making requests for substitutions the Contractor:

**a.** Represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified;

**b.** Represents that the Contractor will provide the same warranty for the substitution that the Contractor would provide for the specified product;

**c.** Certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent;

**d.** Will coordinate the installation of the accepted substitution, making such changes as may be required for the Work to be complete in all respects; and,

**e.** Will reimburse Owner for additional costs from claims by other Prime Contractors resulting from incorporation of the requested substitution.

**.13** If the Project involves Public Work subject to N.Y. General Municipal Law §103, whenever a material, article, device, piece of equipment or type of construction is identified on the Drawings or in the Specifications by reference to manufacturers' or vendors' names, trade names, catalog numbers, or similar specific information, it is so identified for the purpose of establishing a standard of quality, and such identification shall not be construed as limiting competition. In such event, any material, article, device, piece of equipment or type of construction of other manufacturers or vendors that will perform the duties imposed by the general design will be considered equally acceptable provided the material, article, device, piece of equipment or type of construction so proposed is completely described in submittals as set forth herein and is, in the opinion of the Architect, of equal substance, appearance, and function.

**.14** The burden of proof to show equivalency or equal quality shall be that of the Contractor. Submissions for this purpose shall follow the format for Submittals. Submissions shall be complete, informative & address all data required in the base bid specification in such a manner that the Architect can, without unusual effort or exhaustive research, review and make a judgment as to its equivalency. Excessive or unusual effort required of the Architect by the Contractor to review, research and qualify items proposed as equivalents shall be charged to the Contractor at the current billing rate of the Architect.

**.15** Proposed equivalents or substitutions will not be considered unless requested as set forth herein. Mere express or implied indication of equivalents or substitutions will not be considered without full compliance these requirements.

**.16** The Contractor shall indicate the kind, type, brand or manufacturer that is to be substituted for the specified item. The Contractor will submit information describing in specific detail the differences in quality, performance, cost and time between the substitution and the item that was specified. This information shall include notification of possible changes to the Work or to work of other contracts."

**§ 3.4.5** A shortage of labor in the industry shall not be accepted as an excuse for not properly manning the project at each site.

**§ 3.4.6** Contractor shall be responsible for the care and protection of all equipment and materials for his work of this project, including equipment and material furnished by the Owner.

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§ 3.4.7 Contractor warrants that it has good title to all materials used in the Work of this Contract. No materials or supplies shall be furnished by Contractor or any of its Subcontractors that are subject to any chattel mortgage, conditional sale or other agreement by which an interest is retained by the seller.

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**§ 3.5.1.1** Neither final payment, nor provision in Contract Documents, nor partial or entire occupancy of premises by Owner shall constitute an acceptance of Work not done in accordance with Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

**§ 3.5.1.2** In emergencies occurring during the warantee period, the Owner may correct any defect immediately and charge the cost to the Contractor. The Owner shall at once notify the Contactor, who may take over the Work and make any corrections remaining after his forces arrive at the Work. Any repair work not started within seven (7) days following notice to the Contractor of any defect shall be considered an emergency.

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

**§ 3.6.1** The OWNER is exempt from the payment of Sales and Compensating Use Taxes of the State of New York and of cities and counties, on all materials, equipment and supplies to be sold to the OWNER pursuant to this Contract. The exemption does not, however, apply to tools, machinery, equipment, or other property leased by or to the contractor or to a Sub-Contractor and the Contractor and its Sub-Contractor. Also exempt from such taxes are purchases by the CONTRACTOR and its subcontractors of materials, equipment and supplies to be sold to the OWNER pursuant to its Contract, including tangible personal property to be incorporated in any structure, building or other real property forming part of the Project." The exemption does not, however, apply to tools, machinery, equipment, or other property leased by or to the CONTRACTOR or a Sub-Contractor and the CONTRACTOR and its Sub-Contractor shall be responsible for any 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 into the project.

**§ 3.7.1** ~~Unless otherwise provided in the Contract Documents, the Owner, assisted by the Construction Manager, shall secure and pay for the building permit. The~~ Each Contractor shall secure and pay for ~~other permits, fees, licenses, and inspections by government agencies necessary for~~ all required permits, governmental fees, licenses, certificates of inspection, of occupancy, of Underwriters, and of all other required certificates for the Work, necessary for the proper execution and completion of the ~~Work that~~ Work, which are customarily secured after execution of the Contract and ~~legally required at the time bids are received or negotiations concluded.~~which are legally required at the time the bids are received. Each Contractor shall be responsible for complying with any and all requirements specified with each Permit.

...

**§ 3.7.4 Concealed or Unknown Conditions.** If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner, Construction Manager, and the Architect before conditions are disturbed or affected work is performed and in no event later than ~~14~~ 7 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

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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.

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**.2** Contractor's costs for ~~unloading and handling at the site, labor, installation costs,~~ overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and

**.3** whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

**.4** Value of allowances shall also include:

- All costs for plant, equipment and labor for unloading, handling and storage at the site;
- Any costs for protection;
- All costs for associated demolition work;
- Costs for removal and off-site disposal of demolished materials;
- Cost for labor, materials and equipment for installation and finishing, except where labor is specified not to be a part of the allowance.
- Other expenses required to complete the installation.

...

**§ 3.9.1** ~~The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent~~ Prior to starting the work, the Contractor shall designate the project manager, superintendent and other key individuals who shall be assigned to the project through and including final completion. Such designation shall be in writing and provided to the Architect, Construction Manager, and Owner. The Superintendent shall be in attendance at the project site throughout the work, including completion of the punch list. The Superintendent shall, during the performance of the work, remain on the project site not less than eight hours per day, five days per week, until termination of the contract, unless the job is suspended or work is stopped by the Construction Manager or Owner. The Superintendent shall not be employed or used on any other project during the course of the work. The Superintendent shall be approved by the Owner in its sole discretion. Said representative shall be qualified in the type of work to be undertaken and shall not be changed during the course of construction without the prior written consent of the Owner. Should an approved representative thereafter leave the Contractor's employ, Contractor shall promptly designate a new representative. Owner shall have the right, at any time, to direct a change in the Contractor's representatives if their performance is unsatisfactory. In the event of such demand, Contractor shall, within seven days after notification thereof, replace said individual(s) with an individual satisfactory to Owner, in Owner's sole discretion. If said replacement is disapproved, the Contract may, at Owner's option be terminated for cause. The Superintendent shall represent the Contractor, and communications given to the ~~superintendent shall be as binding as if given to the Contractor.~~Superintendent shall be binding as if given to the Contractor. The Owner shall have no obligation to direct or monitor the Contractor's employees. All references herein to the Superintendent shall be taken to mean the Contractor's Superintending staff.

...

**§ 3.9.4** The Contractor shall not reduce or terminate supervision of the Work.

**§ 3.9.5** If, for any reason, the Contractor takes an action resulting in any of the changes noted in **§ 3.9**, which negatively affects the projects progress or quality, or resulting in additional work by the Owner or their agents, the Owner has the right to charge the Contractor all costs associated with these efforts including the costs of legal, Construction Management Services, and Architectural services. The Owner shall notify the Contractor in writing of their intent to back charge as a result of lack of supervision.

**§ 3.9.6** The Contractor shall coordinate and supervise the work performed by subcontractors so that the work is carried out without conflict between trades and so that no trade, at any time, causes delay to the general progress of the work. The Contractor and all subcontractors shall afford each trade reasonable opportunity for the installation of their work and the storage of their materials.

**§ 3.9.7** It is required of any and all supervisory personnel proposed for use by any Contractor that said personnel be

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versed in the English language or, said contractor shall furnish a full-time on-site interpreter to facilitate communications between the Owner's representative and the Architect.

**§ 3.9.8** The Contractor shall employ a competent senior superintendent. Such superintendent may not be replaced during the duration of the Project including the completion of Punch List, unless approved by Architect and the Owner's Representative.

**§ 3.9.8** Contractor to provide resume of Contractor's Superintendent to the Owner, Architect and Owner's Representative.

**§ 3.9.10** Contractor shall furnish the Owner's Representative in writing the names, addresses and telephone numbers of the members of his organization who can be contacted in the event of an off-hours emergency at the building site.

**§ 3.9.11** The Contractor shall attend progress meetings with the Owner's Representative and such other persons the Owner may wish to have present. The progress meetings shall include all key personnel on the job, including the Contractor and Sub-contractors, or other persons in charge of various phases of the work.

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**§ 3.10.1.1** Submission of an accepted Construction Schedule shall be a prerequisite to initial payment. If the schedule is not submitted by said dates the Contractor has acknowledged his approving the Owner to complete a schedule for the Contractor. Such schedule will become the product and ownership of the Contractor and the Contractor will be back-charged all costs pertaining to the service of producing the schedule. The Contractor shall provide revised schedules at appropriate intervals as required by the Conditions of the Work and Project.

**§ 3.10.1.2** Revisions to schedule shall be approved by the Owner.

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**§ 3.10.5** All Construction Schedules are the product and ownership of the Contractor.

**§ 3.10.6** The Construction Schedule.

**§ 3.10.6.1** The construction schedule shall be in a detailed precedence style critical path method (CPM) or Primavera-type format satisfactory to the Owner, the Owner's Representative and the Architect which shall also:

(a) provide a graphic representation of all activities and events that will occur during performance of the work including the submission, review and approval of all submittals (i.e. Shop Drawings, etc.) required by the Contract Documents;

(b) identify with each phase of construction and occupancy; and

(c) set forth dates that are critical in insuring the timely and orderly completion of the Work in accordance with the requirements of the Contract Documents (hereinafter referred to as the Milestone dates).

**§ 3.10.6.2** Upon review and acceptance by the Owner and the Construction Manager of the Milestone Dates, the construction schedule shall be deemed part of the Contract Documents and attached to the agreement as Exhibit "A". If not accepted by the Owner and the Construction Manager, the construction schedule shall be promptly revised by the Contractor in accordance with the recommendations of the Owner and the Construction Manager and re-submitted for acceptance.

**§ 3.10.6.3** The Contractor shall monitor the progress of the work for conformance with the requirements of the construction schedule and shall promptly advise the Owner of any delays or potential delays.
**§ 3.10.6.4** The accepted construction schedule shall be dated to reflect actual conditions (sometimes referred to as progress reports) as set forth in Paragraph 3.10 or if requested by either the Owner or the Architect. In the event any progress report indicates any delays, the Contractor shall propose an affirmative plan to correct the delay, including overtime and/or additional labor, if necessary. In no event shall any progress report constitute an adjustment in the

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contract time, any Milestone Date or the Contract Sum unless any such adjustment is agreed to by the Owner and authorized pursuant to Change Order.

**§ 3.10.6.5** The construction schedule shall be updated at least once a month or more frequently if requested. The Contractor shall furnish the Owner, Owner's Representative and Architect with sufficient copies of the original schedules and all updated schedules as the Owner, Owner's Representative, or Architect may require.

**§ 3.10.6.6** In the event the Owner determines that the performance of the Work, as of a Milestone Date, has not progressed or reached the level of completion required by the Contract Documents, the Owner shall have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including, without limitation, (1) working additional shifts or overtime, (2) supplying additional manpower, equipment, and facilities and (3) other similar measures (hereinafter referred to collectively as Extraordinary Measures). Such Extraordinary Measures shall continue until the progress of the Work complies with the stage of completion required by the Contract Documents. The Owner's right to require Extraordinary Measures is solely for the purpose of ensuring the Contractor's compliance with the construction schedule and shall not be construed as or deemed to constitute an acceleration directive by the Owner.

**§ 3.10.6.6.1** The Contractor shall not be entitled to an adjustment in the Contract Sum in connection with Extraordinary Measures required by the Owner under or pursuant to this Paragraph 3.10.5.

**§ 3.10.6.6.2** The Owner may exercise the rights furnished the Owner under or pursuant to this Paragraph 3.10.4 as frequently as the Owner deems necessary to ensure that the Contractor's performance of the Work will comply with any Milestone Date or completion date set forth in the Contract Documents.

**§ 3.10.6.6.3** The Owner reserves the right to withhold payment until such time as the Contractor submits a daily schedule showing work to be again on schedule with the Construction Schedule and performing per revised schedule, without additional cost to the Owner.

**§ 3.10.7** The Owner shall have the right to direct a postponement or rescheduling of any date or time for the performance of any part of the Work that may interfere with the operation of the owner's premises or any tenants or invitee thereof. The Contractor shall, upon the Owner's request, reschedule any portion of the Work affecting operation of the premises during hours when the premises are not in operation. Any postponement, rescheduling or performance of the Work under this Paragraph 3.10.5 may be grounds for an extension of the Contract Time, if permitted under Paragraph 8.3.1 if: (1) the performance of the Work was properly scheduled by the Contractor in compliance with the requirements of the contract Documents and (2) such rescheduling or postponement is required for the convenience of the Owner.

**§ 3.10.8** The various Prime Contractors shall be responsible for the coordination and orderly arrangement of the various equipment, lines and piping and architectural features, and to avoid any unsightly arrangements in exposed work.

**§ 3.10.9** All Construction Schedules are the product and ownership of the Contractor.

**§ 3.10.10** Revisions to the schedule shall be approved by the Owner and Construction Manager.

**§ 3.10.11** Contractor shall provide all required labor and material to proceed with work as per the Construction Schedule and shall work continuously and expeditiously through project completion.

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**§ 3.12.3.1** The Contractor shall submit for review to the Architect through the Construction Manager samples of materials listed under each section of the specifications. Samples shall be properly labeled for identification, consisting of the following information: job titles, sample number, submission number, and label large enough to receive Architect's stamps.

**§ 3.12.3.2** The Contractor shall not commence work under sections of the specifications until the Architect's approval in writing is obtained for all listed samples.

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**§ 3.12.3.3** The Contractor shall not construe approval of advance samples as total guarantee of acceptance of materials. Materials will be subjected to field inspections, from time to time, as work progresses.

**§ 3.12.3.4** Samples of specific manufactured products shall be accompanied with appropriate manufacturer's literature at time of submission.

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**§ 3.12.5.1** No extension of time will be granted to the Contractor because of failure to have shop drawings, product data, and samples submitted in ample time to allow for review by the Construction Manager, Architect or their Consultants.

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**§ 3.12.7.1** If the Contractor elects to release work without approvals, same shall be at its own risk and expense.

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**§ 3.12.10.2.1** If it is the position of the Contractor, or his licensed design professional, that the Owner and Architect have not provided all performance and design criteria, the Contractor shall request additional criteria in writing before proceeding with the professional services described in § 3.12.10. Proceeding with the professional services shall be evidence that the Owner and Architect have provided all necessary performance and design criteria.

**§ 3.12.11** All shop drawings for any architectural, structural, mechanical or electrical work must be submitted to the Architect through the Construction Manager. The Contractor represents and warrants that all shop drawings shall be prepared by persons and entities possessing expertise and experience in the trade for which the shop drawing is prepared and, if required by the Architect or applicable law, by a licensed engineer.

**§ 3.12.11.1** Each shop drawing shall contain a title block with provisions for the following:
(1) Number and Title of Drawing.
(2) Date of Drawing or Revision.
(3) Name of project.
(4) Name of Contractor or Sub-contractor submitting Drawing.
(5) Specification Section Title and Number.
(6) Space for Architect's Stamp and Received Stamps.

**§ 3.12.11.2** Each shop drawing shall have listed on it all Contract Reference Drawing Numbers plus Shop Drawing Numbers on related work by other Sub-contractors if available.

**§ 3.12.11.3** Each shop drawing submission shall have indicated on the drawing under the submission number (whether first, second, third, etc.).

**§ 3.12.11.4** Shop drawings for work of one trade shall be checked by Sub-contractors of related trades, and shall have received their stamp of approval before being submitted to the Architect.

**§ 3.12.11.5** Each shop drawing submission after the first submission shall be clear of all previous stamps.

**§ 3.12.12** Contractor shall communicate and supply Shop Drawings to other Contractors to ensure proper coordination.

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**§ 3.13.1.1** Use of site and building:

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**.1** Each Prime Contractor shall cooperate with the Owner in making available for the Owner's use, areas of the completed or partially completed building(s) or site as provided for in Article 9, Paragraph 9.9. The Owner shall have the right to take possession of and to use any completed or partially completed portions of the building or site even though the time of completing the entire Work or such portion of the Work may not have expired. Such use shall not constitute acceptance thereof. Such occupancy shall in no way abrogate any specified warranties or guaranties for materials, workmanship or operation of equipment pertaining to the occupied portions.

**.2** Each Prime Contractor shall cooperate with the Owner in making available for the Owner's use such building services as heating, ventilating, cooling, water, lighting and telephone for the space or spaces to be occupied, and if the equipment required to furnish such services is not entirely completed at the time the Owner desires to occupy the aforesaid space or spaces, the Contractor shall make every reasonable effort to complete such part of his Work as soon as possible to the extent that the necessary equipment can be put into operation and use.

**.3** Mutually acceptable arrangements shall be made as to the warranties or guaranties affecting all Work associated therewith.

**.4** Such occupancy or use shall not commence prior to a time mutually agreed to by the Owner and Contractor and to which the insurance company or companies providing the property insurance have consented by endorsement to the policy or policies. (See 11.3.1.5) Such occupancy shall be documented with an appropriately executed Certificate of Substantial Completion.

**.5** See Article 2, Paragraph 2.5 for special situations.

**§ 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. Only materials and equipment which are to be used directly in the Work shall be brought to and stored on the Project site by the Contractor. After equipment is no longer required for the Work, it is to be promptly removed from the Project site. Protection of construction materials and equipment stored at the Project site from weather, theft, damage, and all other adversity is solely the responsibility of the Contractor. The Contractor shall be held responsible for repairs, patching, or cleaning arising from such use.

**§ 3.13.2.1** The Contractor shall provide all temporary access walkways, both interior and exterior, temporary partitioning and the like necessary to complete the operations. The Contractor shall maintain in an unobstructed condition all entrances and/or exits from present buildings.

**§ 3.13.3** The Contractor and any entity for which the Contractor is responsible shall not erect any sign on the Project site without the written consent of the Owner, which may be withheld in the sole discretion of the Owner.

**§ 3.13.4** Without prior approval of the Owner, the Contractor shall not permit any workers to use any existing facilities at the Project site, including, without limitation, lavatories, toilets, entrances, and parking areas other than those designated by the Owner. Without limitation of any other provision of the Contract documents, the Contractor shall use his best efforts to comply with all rules and regulations promulgated by the Owner in connection with the use and occupancy of the Project site and the Building as amended from time to time. The Contractor shall immediately notify the Owner in writing if during the performance of the Work the Contractor finds compliance with any portion of the rules and regulations to be impracticable, setting forth the problems of such compliance and suggesting alternatives through which the same results intended by such portions of the rules and regulations can be achieved. The Owner may, in the Owner's sole discretion, adopt such suggestions, develop new alternatives or require compliance with the existing requirements of the rules and regulations. The Contractor shall also comply with all insurance requirements and collective bargaining agreements applicable to use and occupancy of the Project site and the Building.

**§ 3.13.4.1** All Contractor shall confine their use of the premises for all purposes, to the areas occupied by the construction and related storage areas as and if shown.

**§ 3.13.4.2** The responsibility for the safe working conditions at the site shall be the Contractor's. The Architect, Owner's Representative and Owner shall not be deemed to have any responsibility or liability in connection therewith.

**§ 3.13.5** Contractor's, their workers, suppliers, etc. will be held to adhere strictly to the requirements hereinbefore stated, and shall not occupy or carry traffic through other parts of the site or interior of present buildings except by specific permission of the Construction Manager.

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**§ 3.13.6** The Contractor shall repair or replace any existing trees, shrubbery or other planting damaged by operations and/or workers employed in performance of its contract.

**§ 3.13.7** Contractor shall insure that the Work, at all times, is performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. The Work shall be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the Work shall be free from all debris, building materials and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract Documents, Contractor shall use its best efforts to minimize any interference with the occupancy or beneficial use of (1) any areas and buildings adjacent to the site of the Work or (2) the Building in the event of partial occupancy, as more specifically described in Paragraph 9.9.

**§ 3.13.7.1** The Contractor shall provide full and free access for the Architect, Owner's Representative, Owner and/or their representatives, to inspect job materials, equipment, fabrication, facilities, and storage locations, at and away from the job site.

**§ 3.13.8** Employees, vehicles, equipment and material of the Contractor and of all others utilized by the Contractor for the performance of its work, shall enter onto the construction site only at those locations designated or approved by the Construction Manager.

**§ 3.13.9** The Contractor shall familiarize itself with any access and storage requirements set forth in the Supplementary Conditions and Division 1 and shall be subject to them. The Contractor shall properly maintain all access to work and storage areas so that there will be continuous unimpeded access to the work site in all seasons of the year, on all regular working days and all regular working hours of any and all trades employed by all contractors during work at this site.

**§ 3.13.10** Only such vehicles, trucks and equipment shall be parked or stored within the work areas are absolutely necessary for performing the work, for the length of time that particular phase of work is performed. All other contractor's vehicles and/or employees and/or workers' vehicles including passenger cars shall be parked off the site. There are no exceptions to the rule.

**§ 3.13.11** It shall be the responsibility of the Contractor to provide necessary and required security measures to adequately safeguard the construction site from vandalism and intrusion of unauthorized persons.

**§ 3.13.11.1** The Contractor shall submit the means and methods of security to the Owner through the Owner's representative for approval. The project site must be secured 24 hours a day, seven (7) days a week including holidays.

**§ 3.13.11.2** All workers and employees of any Contractor are prohibited from:
1. Trespassing or leaving any vehicle on any property not assigned by the Owner as set aside for the use of the Contractor.
2. leaving any vehicle on the grounds unless it is locked and the ignition keys removed.

**§ 3.13.11.3** All employees or persons entering the property surrounding the facilities affected by the construction are restricted to the immediate area of work. Only persons having official business will be admitted to the construction site.

**§ 3.13.3 Protection of Building Occupants**

**§ 3.13.3.1** Owner or Tenant occupied areas of the building shall always comply with the minimum requirements necessary to maintain a Certificate of Occupancy.

**§ 3.13.3.2** General safety and security standards for this project include:

- **.1** All construction materials shall be stored in a safe and secure manner;
- **.2** Fences shall be maintained around construction supplies or debris.
- **.3** Gates in temporary fences shall always be locked unless a worker is in attendance to prevent unauthorized entry to the Contract areas.

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**.4** 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.

**.5** Workers shall wear photo-identification badges at all times for identification and security purposes.

**.6** Separation of Construction Areas: Construction areas that are under the control of a Contractor and therefore not occupied by Owner or Tenants 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 contaminant barriers must be made to prevent exposure to dust or contaminants. Each Contractor working inside the buildings shall temporarily seal doorways enclosing their work area, using heavy duty plastic, duct tape, etc. Repairs of the plastic and tape must be made in the event the tape becomes loose or the plastic is cut or torn.

**.7** Type "X" Gypsum Board shall be used in exit ways or other areas that require fire rated separation.

**.8** Plastic sheeting may be used only as a vapor, fine dust, or air infiltration barrier, and shall not be used to separate occupied spaces from construction areas.

**.9** 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 Owner or Tenants.

**.10** 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.

**.11** All parts of the building affected by renovation activity shall be cleaned at the close of each workday, including but not limited to cleaning and disinfection in connection with infectious disease exposure precautions, whether permanent or temporary, required or suggested by federal, state or local governmental authorities.

**.12** Fire and hazard prevention: Areas of buildings under construction that are to remain occupied shall maintain a Certificate of Occupancy.

**§ 3.13.3.3** Noise Abatement During Construction:

**.1** 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 is not occupied, or acoustical abatement measures shall be taken.

**§ 3.13.3.4** Control of airborne contaminates during construction:

**.1** The Contractor shall be responsible for the control of the chemical fumes, gases, and other contaminates produced by their welding, gasoline or diesel engines, roofing, paving, painting, etc. to ensure they do not enter occupied portions of the building or air intakes.

**.2** The Contractor shall be responsible to ensure that its 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 manufacturer's recommendations before a space can be occupied.

**.3** Large and small asbestos abatement projects as defined by 12NYCRR56 shall not be performed in occupied areas of the building. Any area of the building where abatement of hazardous materials is being performed must be sealed off in an air-tight fashion from the remainder of the building in accordance with NY Code Rule 56 and other applicable laws and regulations.

**.4** The requirements of Section 155 of the Regulations of the New York State Commissioner of Education apply to this Project. Reference Section 01 3529.1 Life Safety Requirements During School Construction and the Official Compilation of Codes, Rules and Regulations of the State of New York, Title 8 Education Department, Chapter II Regulations of the Commissioner, Subchapter J. Buildings and Transportation Part 155 Education Facilities.

**§ 3.13.4** Each Contractor shall be responsible for complying with Occupational Safety and Health Administration (OSHA) and U.S. Department of Health and Human Services' Center for Disease Control and Prevention (CDC) on COVID-19 Guidance for safe work practices, use of personal protective equipment (PPE), social distancing, cleaning, and sanitizing of the worksite. These protocols shall be incorporated into each Contractor's safety work plan.

**§ 3.13.5** All construction workers and suppliers are to execute a Health Declaration Form/Questionnaire each day prior to gaining access to one of the construction sites during the COVID-19 crisis.

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**§ 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.~~In order to eliminate cutting and patching as much as possible, each Prime Contractor shall coordinate the installation of sleeves and inserts with the other Prime Contractors affected and shall give proper and detailed instructions to others where Work may be affected by their Work, with adequate notice prior to the erection of new Work. Cutting and patching Work as required to install new Work or remove existing Work shall be done carefully and neatly with as little damage as possible.

**§ 3.14.3** Unless otherwise stated in Specification Section 01 7329 Cutting and Patching, each Prime Contractor shall perform all cutting and patching as required to complete their Work. Cutting is to be done neatly with minimal damage to surrounding materials and holes to be patched and/or fire safe as required to the satisfaction of the Construction Manager, Architect and Owner.

**§ 3.14.4** Any costs caused by defective or ill-timed Work shall be borne by the Contractor responsible, therefore. Any Contractor who is required to cut and patch its new Work to provide conditions for other contractors to complete their new Work and who was not given adequate prior notice of the conditions required for completion of such Work before doing its Work, shall charge the Contractor in default the documented cost of the cutting and patching Work plus 15% for overhead and profit unless otherwise specified.

**§ 3.14.5** Cutting and patching of any Work shall be made in such a manner as to not breach any provisions of any guarantee or warranty on existing Work left in place or guarantee or warranty required for his new Work. Patching of Work shall match existing adjacent surfaces and patch work shall be disguised completely to hide any trace of patching.

**§ 3.14.6** Refer to Contract (General, Supplementary and other conditions) Section 01 7329 Cutting and Patching for more information.

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**§ 3.15.1.1** All Contractor's work areas shall be kept clean each day, of refuse, including containers, cups and the like. The facilities will remain in operation during the course of the entire construction operation. All Contractors performing work on this Contract shall schedule their work so as not to interfere with any traffic to and from the required areas of use. The Contractor shall be responsible for maintaining all traffic, and shall provide all barriers and protection as required to safeguard the work and the public and the occupants of the building during construction. The Prime Contractors shall comply with all fire code regulations during construction. They include vehicular parking, smoke partitions, rescue window obstructions, use of extension cords. The fire code is available for reference at the Buildings and Grounds office.

Each Contractor shall be responsible for cleaning their rubbish daily and removing all rubbish from the interior and exterior site weekly or when otherwise requested by the Owner. The General Contractor shall broom sweep all construction areas at least every Friday. Surfaces shall be left clean of mortar and paint spots and the like. The Contractor shall work in a condition approved by the Construction Manager. An inspection will occur on Friday afternoon and failure to properly clean will result in the Owner engaging a cleaning company each time the requirement is not met, without prior notification to the Contractor. The cost will be divided among each Contractor who has not cleaned their debris and shall include any custodial overtime, Construction Manager's administration fees, etc.

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**§ 3.15.3** Each Prime Contractor is solely responsible for clean-up to the Construction Manager's and Owner's satisfaction. Further, each Contractor shall fully cooperate with all other Contractors in the coordinated effort to meet the Owner's time and quality requirements for clean-up.

**§ 3.15.4 Final Cleaning**

A. General: General cleaning during construction is required by the General Conditions and included in Division 01.
B. Final Cleaning: Clean each surface or unit to the condition expected in normal commercial building cleaning. Comply with manufacturer instructions. Complete the following cleaning operations before requesting inspection for Certificate of Substantial Completion.
   1. Clean transparent materials including glass in doors windows. Replace any damaged glass.
   2. Clean exposed finishes to a dust free condition, free of stains, films and similar foreign substances. Clean floors as recommended by the manufacturers if new, if existing carpeted floors shall be vacuumed and wood, ceramic tile and vinyl tile floor floors shall be mopped.
   3. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
C. Removal of Protection: Remove temporary protection and facilities installed for protection of work during construction unless otherwise directed by the Owner, Architect or Owner's Representative.
D. Compliance: Comply with authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.

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§ 3.18.1 To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the Owner, ~~Construction Manager, Architect, Construction Manager's and Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and~~ Architect, and the Construction Manager, and 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,~~ fees and litigation costs, arising out of or resulting from performance of the Work, ~~provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself),~~ including suits, claims, damages, losses or expenses attributable to any bodily injury, sickness, disease, or death, or injury to or destruction of any tangible property, including loss of use resulting therefrom, or any statutory violations, but only to the extent caused ~~by the negligent acts or omissions of the Contractor, a~~ 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 ~~they~~ any of the above may be liable, regardless of whether ~~or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.~~any of them has been negligent. This provision shall not be construed to require the Contractor to indemnify the Owner, Architect or Construction Manager for the negligence of the Owner, Architect or Construction Manager, respectively, to the extent such negligence, in whole or in part, proximately caused the damages resulting in the suit, claim, damage, loss or expense.

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**§ 3.18.3** In any and all Claims against the Owner, Construction Manager, or the Architect or their agents or employees by third parties, the indemnification obligation under § 3.18 shall apply and shall not be limited by limitation or amount of or type of damages, compensation, or benefits payable by or for the Contractor or Subcontractors.

**§ 3.18.4** Contractor shall comply with, and cooperate with, Construction Manager, Architect and Owner in complying with legal requirements. Among other things, Contractor shall be responsible for performing corrective Work within any abatement periods prescribed by governmental entities including but not limited to OSHA, appealing from decisions or orders, requesting extensions on abatement periods, and furnishing such information or evidentiary material as may be necessary or as may be requested by Construction Manager, Architect or Owner to fully protect the rights and interests of Owner, Construction Manager, and Architect with respect to possible, threatened or pending proceedings or orders.

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**§ 3.19 Contractor's Responsibilities**

**§ 3.19** Contractor agrees, in addition to all other responsibilities and duties under the Contract:

**§ 3.19.1** To use all necessary means to discover and to notify the Construction Manager, Architect and Owner in writing of any defect in other Work upon which the satisfactory performance of the Work may depend, and to allow a reasonable amount of time for remedying such defects. If Contractor should proceed with the Work, Contractor shall be considered to have accepted and be responsible for such other Work unless over Contractor's written objection, Contractor shall have proceeded pursuant to written instructions from the Architect.

**§ 3.19.2** To submit to Owner, Construction Manager, and Architect promptly upon request, information with respect to the names, responsibilities and titles of the principal members of Contractor's staff.

**§ 3.19.3** To take all steps necessary to avoid labor disputes; and to be responsible for any delays and damages to Owner caused by such disputes.

**§ 3.19.4** To pay for costs of repair to other Work attributable, in whole or in part, to the fault or negligence of Contractor and Owner's charges for removal of rubbish attributed to Contractor, and any clean-up related to Contractor or the Work, as determined by Owner or Construction Manager.

**§ 3.19.5** To comply with all legal requirements; to appear at hearings, proceedings or in court in respect of such compliance or in respect of violations or claimed violations of legal requirements; to pay any fines or penalties imposed for said violations; and to pay all legal fees, fines and penalties incurred by or imposed upon Owner relating to Contractor's compliance, violations or claimed violations. Without limiting the foregoing, Contractor shall appear at hearings, proceedings and/or in court and consent to its substitution as a party defendant in respect of all summonses and claimed violations arising out of or relating to the Work.

**§ 3.19.6** Not to display on or about the Project site any sign, trademark or other advertisement without written consent of the Owner.

**§ 3.19.7** Each Contractor's Subcontractor and supplier shall be bound by all Contract Documents to the same extent and with the same effect as if the Subcontractor or supplier were the Contractor. Contractor shall cause Subcontractors and suppliers to comply with all the Contract Documents. Contractor shall be responsible for all the acts, work, material and equipment of its Subcontractors and supplier and all persons either directly or indirectly employed by any of them.

**§ 3.19.8** To:

- **.1** Furnish a competent and adequate staff and use its best skill and attention for the proper administration, coordination, supervision, and superintendence of the Work;
- **.2** Organize the procurement of all materials and equipment so that they will be available at the time needed for the Work;
- **.3** Keep an adequate force of skilled workers on the job to complete the Work in strict accordance with all requirements of the Contract Documents;
- **.4** Maintain throughout the duration of the Work a competent superintendent and any necessary assistants, all of whom shall be acceptable to Owner and shall not be changed without the consent of the Owner;
- **.5** Enforce discipline and order and not to employ at the Project any unfit person or anyone not skilled in the task assigned; and
- **.6** Provide supervision by experts in all aspects of the application of the materials, equipment or system being fabricated and installed.

**§ 3.19.9** That if any Work is performed which is contrary to legal requirements, to promptly make all changes as required and take all other corrective action to comply therewith and pay all costs arising there from.

**§ 3.19.10** That any review or consideration by Owner, Construction Manager, or Architect of any method of construction, invention, appliance, process, article, device or material of any kind shall be for its general adequacy for the Work and shall not be an approval for the use thereof by Contractor in violation of any patent or other rights of any third person. Owner and Architect shall in no event be deemed to have reviewed or to have been required to review or consider the means and methods of construction, all of which are chosen exclusively by the Contractor.

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**§ 3.19.11** That if any provision of the Contract Documents conflicts with any agreement among members of trade associations, or with a union or labor council which regulates the work to be performed by a particular trade, to reconcile such conflict without delay or damage to Owner. In the event the progress of the Work is delayed by such conflict, Architect may require that other material or equipment of equal or better kind and quality be provided at no additional cost to Owner. This right of substitution shall not limit other rights that the Owner may have concerning such delay.

**§3.19.12** In accordance with local or NY State Laws and Regulations, the Contractor, including any of its employees, subcontractors, suppliers or materialmen or other representatives, shall not use tobacco in any form on the premises during the course of the Work. Contractors failing to abide by this requirement shall be prohibited from working at the site and shall be responsible for any consequent delays or added costs to the Owner as a result of such noncompliance.

**§ 3.19.13** The Contractor shall provide reasonable and visible identification for each employee, Subcontractor, or other person at the Project site, and shall, upon request of the Owner, make available a list of names of those employees, Subcontractors or others working under the direction of the Contractor at the Project site. Any such identification shall be reasonably visible to the Construction Manager, Architect and to Owner's or Tenants' personnel at all times to allow the Owner to maintain the safety and security of buildings, property, and persons at the Project site. Contractors failing to abide by this requirement are different from those as indicated.

**§ 3.19.14** The Contractor, its employees and Subcontractors and their employees shall be subject to and abide by rules and regulations established by the Owner. No weapons of any kind shall be permitted on-site; there shall be no harassment of a sexual, ethnic, or religious nature; there shall be no use of profanity.

**§ 3.20 Local Conditions, Existing Features and Underground Data**

**§ 3.20.1** The Contractor acknowledges it has satisfied itself as to the nature and location of the Work, the general and local conditions, particularly those bearing on transportation, disposal, handling and storage of materials, availability of labor, materials, equipment, utilities, roads, weather, ground water table, character of surface and subsurface materials and conditions, the facilities needed to prosecute the Work, and all other factors which in any way affect the Work or the cost thereof under this Contract. Any failure by the Contractor to acquaint itself with the available information concerning these conditions will not relieve it from the responsibility of successfully performing work. See Section § 1.2.2.1.

**§ 3.20.2** The location of existing features shown on plans is intended for general information only. The Contractor is solely responsible for accurate determination of the location of all structures and shall not be entitled to any extra payment due to any unforeseen difficulties or distances encountered in the Work.

**§3.20.3** The locations, depths, and data as to underground conditions have been obtained from records, surface indications and data furnished by others. The information furnished is solely for the convenience of the Contractor without any warranty, expressed or implied as to its accuracy or completeness. To the extent permitted by law, the Contractor shall make no claim against the Owner or Architect or the Construction Manager with respect to the accuracy or completeness of such information if erroneous, or if the conditions found at the time of construction.

**§ 3.21 Construction Stresses**

**§ 3.21.1** The Contractor shall be solely responsible for the load conditions created during construction. The Contractor shall be responsible for repairing any structure which is dislocated, over strained, or damaged during construction.

**§ 3.21.2** The Contractor is responsible for restoration and/or repair of utilities, property, buildings, pavement, walkways, roads, etc. damaged by its activities.

**§ 3.22 Training and Instructions**

**§ 3.22.1** Upon Substantial Completion of the Work, the Contractor shall orient and instruct the Owner's designated personnel in the operation and maintenance of all equipment furnished by the Contractor and shall turn over all pertinent literature and operational manuals relating to the equipment. The format for organizing, binding, and delivering such manuals shall be as described in the Specifications.

**§ 3.23 Daily Records Clause**

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**§ 3.23.1** 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.

**§ 3.23.2** 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.

**§ 3.23.3** Such daily records shall be copied and provided to the Owner at the end of every week.

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

**§ 4.1.4** If the employment of the Architect or Construction Manager is terminated, the Owner shall employ a successor Architect or Construction Manager.

**§ 4.1.5** The Architect shall be deemed a third-party beneficiary of the Contract and the General Conditions of the Construction Contract and Supplementary Conditions. As such, where Architect incurs additional costs as a result of actions of the Contractor or any of its Subcontractors and Architect is not entitled to compensations for such costs by Owner as Additional Services, such additional cost shall be paid by the Contractor directly to the Architect as Architect's current rates.

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**§ 4.2.13** The ~~Construction Manager~~ Architect will prepare Change Orders and Construction Change Directives. The Construction Manager shall review, approve and sign all Project Change Orders and Construction Change Directives in conjunction with the Owner. The Construction Manager will review change order requests, assist in negotiating the change order requests and submit recommendations to the Architect and Owner.

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**§ 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.~~ on the Project. 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.~~ on the Project. 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.

...

**§ 5.2.1.1** Refer to Information to Bidders for requirements for delivery of a list of subcontractors to Architect's office after receipt of bids and before award of Contract.

**§ 5.2.1.2** Subcontractors will not be acceptable unless, when required by the Construction Manager, evidence is furnished that the proposed subcontractor has satisfactorily completed similar subcontracts as contemplated under this prime contract, and has the necessary experience, personnel, equipment, plant, and financial ability to complete the subcontract in accordance with the intent to the Documents.

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**§ 5.3.1** The Contractor shall not enter into any subcontract, contract, agreement, purchase order or other arrangement for the furnishings of any portion of the materials, services, equipment or Work with any party or entity if such party or entity is an Affiliated Entity, unless such Arrangement has been approved by the Owner, after full disclosure in relationship and all details relating to the proposed Arrangement. The term "Affiliated Entity" means any entity related to or affiliated with the Contractor with respect to which the Contractor has direct or indirect ownership or control, including, without limitation,

.1 Any entity owned in whole or in part by the Contractor;

.2 Any holder of more than ten percent (10%) of the issued and outstanding shares of, or the holder of any interest in, the Contractor; or

.3 Any entity in which any officer, director, employee, partner or shareholder or member of the family of any of the foregoing persons) of the Contractor or any entity owned by the Contractor has a direct or indirect interest, which interest includes, but is not limited to, that of a partner, employee, agent or shareholder.

**§ 5.3.2** The Contractor shall promptly notify the Owner, the Construction Manager, and Architect of any material defaults by any Subcontractors. Notwithstanding any provision contained in this Article 5 to the contrary, it is hereby acknowledged and agreed that the Owner has in no way agreed, expressly or impliedly, nor will the Owner agree, to allow any Subcontractor or other material supplier or worker employed by the Contractor the right to obtain a judgment or decree against the Owner for the amount due it form the Contractor.

**§ 5.3.3** The Contractor shall check record drawings each month. Written confirmation that the record drawings are "up to date" shall be required by the Construction Manager prior to approval of the Contractor's monthly payment requisition.

...

**.3** Any Subcontract over $5,000.00 shall be in writing.

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**§ 5.4.4** Each subcontract shall specifically provide that the Owner shall be responsible to the Subcontractor for those obligations of the Contractor that accrue subsequent to the owner's exercise of any rights under this conditional assignment.

**§ 5.5 Owner Payment to Subcontractors**

**§ 5.5.1** In the event of any default hereunder by the Contractor, or in the event the Owner, Construction Manager, or Architect fails to approve any application for payment, that is not the fault of a Subcontractor, the Owner may make direct payment to the Subcontractor, less appropriate retainage. In that event, the amount so paid the Subcontractor shall be deducted from the payment to the Contractor.

**§ 5.5.2** Nothing contained herein shall create any obligation on the part of the Owner to make any payments to any Subcontractor, and no payment by the Owner to any Subcontractor shall create any obligation to make any further payments to any Subcontractor.

...

**§ 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.~~

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**§ 7.1.1.1** Construction Change Directive: Architect may issue a document, on AIA Form G714, signed by Owner, instructing Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. The

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Document shall describe the changes in the Work and designates method of determining any change in Contract Sum or Contract Time.

1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract time.
2. Promptly execute the change.

**§ 7.1.2.1** Proposal Request: Architect may issue a document which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications. Contractor shall prepare and submit a fixed price quotation within 7 calendar days of receipt of such documents.

**§ 7.1.2.2** Submit to the Construction Manager, the Name of the Individual Authorized to receive change documents and who will be responsible for informing others in contractor's employ or subcontractors of changes to the Contract Documents.

**§ 7.1.2.3** Contractor may propose a change by submitting a request for change to the Construction Manager, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract time with full documentation and a statement describing the effect on Work by separate or other contractors. The Construction Manager Shall Submit to the Architect for review.

**§ 7.1.4** Changes in the Work involving additional Work or deletion of Work whether or not resulting in an addition to or subtraction from the Contract Sum shall not be made until the Contractor submits to the Construction Manager the cost of the added or deleted Work with a complete and detailed listing of all Subcontractors involved, all materials, labor and equipment.

**§ 7.1.4.1** Overhead and profit as described in § 7.1.7 and § 7.1.7.1 may be added to the cost of a Claim for additional Work *only* when the source of monies for such additional Work is not an Allowance included in the Contract Sum or any other monies for Work included in the Contract Sum.

**§ 7.1.4.2** Changes in the Work whether or not involving additions or deductions from the Contract Sum shall not be made until an appropriate Change Order or Change Directive have been issued.

**§ 7.1.4.3** ALL CHANGE ORDERS MUST HAVE THE APPROVAL OF THE OWNER AND ARCHITECT IN WRITING.

**§ 7.1.5** Actual cost of labor and material shall be defined as the amount paid for the following items, to the extent determined reasonable and necessary:

**.1** Cost of materials delivered to the job site for incorporation into the contract work.

**.2** Wage paid to workers and foreman and wage supplements paid to labor organizations in accordance with current labor agreements.

**.3** Premiums or taxes paid by the Contractor for worker's compensation insurance, unemployment insurance, FICA tax and other payroll taxes as required by law, net of actual and anticipated refunds and rebates. (Not to be included in calculation of overhead and profit.)

**.4** Sales taxes as required by law.

**.5** Allowance for use of construction equipment (exclusive of hand tools and minor equipment), as approved for use by the Architect. The rate on self-owned equipment used for periods of under 1 week will be the Associated Equipment Distributor's published monthly rate divided by 22 days to establish a daily rate and divided again by 8 hours to establish an hourly rate. Equipment used for periods of 5 days or more will be billed at a rate equal to 45 percent of the published monthly rate. In the alternative, the Architect may approve the reimbursement of a rate representing the allocable costs of ownership. Self-owned equipment is defined to include equipment rented from controlled or affiliated companies. Rented equipment will be paid for at the actual rental cost. Gasoline, oil and grease required for operation and maintenance will be paid for at the actual cost. When, in the opinion of the Contractor and as approved by the Architect, suitable equipment is not available on the site, the moving of said equipment to and from the site will be paid for at actual cost.

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**§ 7.1.6** Overhead shall include insurance other than those incidental to labor mentioned above, premiums on bonds required by the Contractor, Contractor's Supervisory employees, office management, home and field office expenses, transportation costs and both manual and power small tools and manual and power small equipment.

**§ 7.1.6.1** For Work done by the Prime Contractor's own forces, mark-up for combined overhead and profit on materials and on cost of labor shall not exceed 15%.

**.1** Work authorized under Article §3.8 Allowances are not subject to overhead and profit.

**§ 7.1.6.2** For Work done by the Subcontractors, mark-up of costs as defined herein by Subcontractor's for combined overhead and profit on materials and on cost of labor shall not exceed 10%.

**.1** To this amount, 5% may be added for the Prime Contractor's combined overhead and profit.

**.2** Work authorized under Article §3.8 Allowances are not subject to overhead and profit.

**§ 7.1.7** To facilitate reviewing quotations for either extra charges or deductions, all proposals shall be accompanied by a complete itemization of costs including labor, materials, subcontracts, and if allowed, mark-ups for overhead and profit. Subcontracts shall be similarly itemized. In no case will a change involving over $1,000.00 be approved without itemization.

**§ 7.1.7.1** If requested, the Contractor shall submit detailed quotations from material suppliers.

**§ 7.1.8** Regardless of the method used to determine the value of any change, the Contractor will be required to submit evidence satisfactory to the Architect to substantiate each and every item that constitutes his proposal of the value of the change. The amounts allowed for overhead and profit shall not exceed the applicable percentages as established in the two (2) following Sections:

**§ 7.1.8.1** If the Work is done directly by the Contractor, overhead and profit in the amount of 15% may be added to the cost proposal. The percentages for overhead and profit may vary according to the nature, extent and complexity of the work involved, but in no case shall exceed the percentages set forth in the paragraph. Overhead and profit percentages are not to be applied to the premium portion of overtime pay.

**§ 7.1.8.2** If the Work is done by a subcontractor, subcontractor's overhead and profit in the amount of 10% may be added to the cost of labor and materials. To this amount, there may be added 5 percent for the Contractor's combined overhead and profit. Overhead and profit percentages are not to be applied to the premium portion of overtime pay.

**§ 7.1.9** Whenever the cost of any Work is to be determined pursuant to § 7.1.1 thru § 7.1.8, Contractor will submit in form acceptable to the Construction Manager and Architect an itemized cost breakdown together with supporting data.

**§ 7.1.9.1** In computing the value of a change order which involves additions and deductions of work and the added work exceed the omitted work, overhead and profit shall be computed on the amount by which the cost of additional labor and materials exceeds the cost of the omitted labor and material, except no additional overhead and profit shall be allowed on value of work determined in accordance with § 7.1.5.

**§ 7.1.9.2** In computing the value of a change order which involves deductions and additions and the Work omitted exceeds the added Work, the Contractor will be allowed to retain the overhead and profit on the amount by which the omitted Work exceeds the added Work, except that no overhead and profit shall be retained on value of work.

**§ 7.1.9.3** The Contractor may retain overhead and profit on a change order which involves deductions only, except that no overhead and profit shall be considered on value of Work."

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

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**§ 7.3.1** A Construction Change Directive is a written order prepared by the ~~Construction Manager~~ Architect and signed by the Owner, Contractor, 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

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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.

...

**.1** Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation. Lump sum adjustment shall be substantiated by submitting evidence of actual costs to the Construction Manager and Architect for evaluation;

...

**.3** Cost to be determined in a manner agreed upon by the parties and a mutually acceptable ~~fixed or percentage fee;~~ fixed; or

...

**§ 7.3.4** If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Construction Manager shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an ~~amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount.~~ allowance for overhead and profit in accordance with § 7.1.8, § 7.1.8.1, § 7.1.8.2, § 7.1.9, § 7.1.9.1, § 7.1.9.2, § 7.1.9.3, and when permitted by § 7.1.6 and § 7.1.6.1. 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:

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**.3** Rental costs of machinery and equipment, exclusive of ~~hand tools,~~ manual and small power tools and manual and small power equipment, whether rented from the Contractor or others;

**.4** Costs of ~~premiums for all bonds and insurance,~~ permit fees, and sales, use, or similar taxes, directly related to the change; and

**.5** Costs of ~~supervision and field office personnel directly attributable to the change.~~consumable supplies.

...

**§ 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~~ incorporated into a Change Order.

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

**§ 7.3.9** ~~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.~~When the Owner

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

~~**§ 7.3.10** 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.~~

...

**§ 7.5 Unit Prices**

**§ 7.5.1** Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of § 7.1.1.1 through § 7.5.1.4 inclusive).

**§ 7.5.1.1** Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Architect in accordance with § 7.5.4.

**§ 7.5.1.2** Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

**§ 7.5.1.3** Where the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement and there is no corresponding adjustment with respect to any other item of work and if Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may make a claim for an increase in the Contract Price in accordance with Article 11 if the parties are unable to agree as to the amount of any such increase.

**§ 7.5.1.4** Construction Manager will determine the actual quantities and classifications of unit price work performed by Contractor. Construction Manager and Architect will review with the Contractor, Architect's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Architect's written decisions thereon will be final and binding upon Construction Manager, Owner and Contractor unless, within 10 days after the date of any such decision, either Owner or Contractor delivers to the other party to the Agreement and to Architect written notice of intention to appeal from such a decision.

**§ 7.6 Alternates**

**§ 7.6.1** Where the Work involved is covered by Alternate contained in the Contract Documents, the Owner shall have the right of selection in respect to any or all of the Alternates as Bid. The Contractor shall provide the Owner thirty (30) days' written notice when the doing said work of an Alternate impacts the new Work or the removal of materials/products already installed or the acceptance of the Alternate will increase the Contractor's Contract amount.

**§ 7.7 Field Orders**

**§ 7.7.1** Field Orders are an interpretation of the Contract Documents or an order to do minor changes in the Work. Since time is of the essence, Contractor shall promptly complete the Work directed in the Field Order, which shall be writing. Failure to proceed with a Field Order, which will adversely impact the completion of the project or delay the work of another contractor, shall be just cause for the Owner taking over the Work, or termination of Contract.

**§ 7.7.2** Field Orders are not to be construed as Change Orders. A signed field order is not an approved Change Order.

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**§ 7.7.3** Neither the Owner, Architect nor Construction Manager shall sign field tickets, work orders or any other document prepared by the Contractor. Should the Contractor desire to record extra work performed, the Contractor may request that the work be monitored by the Construction Manager and submit a copy of the field ticket/work order immediately upon completion of such work. The Contractor may also request a copy of the Construction Manager's log.

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**§ 8.2.1** ~~Time limits stated in the Contract Documents are of the essence of the Contract.~~ **TIME IS OF THE ESSENCE IN THE COMMENCEMENT, EXECUTION AND CONSTRUCTION OF THE WORK**. Contractor shall be responsible for all direct and consequential damages to Owner, Construction Manager, and Architect arising from any delay of Contractor, its Subcontractors and suppliers, in performing or completing the Work in accordance with the time requirements. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

**§ 8.2.1.1** Contractor shall cooperate with the Owner, Construction Manager, Architect and other Contractors on the Project, making every reasonable effort to reduce the contract time.

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**§ 8.2.2.1** Contractor shall not commence Work on the site until two copies of all insurance policies as indicated in Article 11, attesting that the required coverage is in force, have been accepted by the Owner.

**§ 8.2.3** ~~The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.~~Contractor shall do all things necessary to ensure the prosecution of the Work in accordance with any one or more of the following as determined by the Construction Manager and the Owner, in their discretion:

**.1** Project schedules and revisions thereof,;
**.2** The time requirements for various portions of Work;
**.3** The requirements of the Project including, but not limited to, coordination requirements as may from time to time be known to Contractor;
**.4** Schedules of the Work provided by Contractor to Construction Manager upon the Owner's request.

**§ 8.2.4** If the Contractor does not achieve Substantial Completion within the Contract Time established in the Agreement between the Owner and the Contractor, or in a subsequent Change Order, the Contractor shall be liable to the Owner, in addition to any actual or consequential damages, for the costs of reimbursements to the Owner's Agents including, but not limited to, the Construction Manager and Architect for their services attributable to this delay.

**§ 8.2.5** Should the progress of the Work and/or other Work be delayed by any fault, neglect, act or failure to act of Contractor or any of its Subcontractors or suppliers so as to cause any additional cost, expense, liability or damage to Owner, Construction Manager, or Architect or for which Owner , Construction Manager, or Architect may become liable, Contractor shall hold Owner, Construction Manager, and Architect harmless from and indemnify Owner, Construction Manager, and Architect against all such additional cost, expense liability or damage in accordance with the provisions of Article 11.

**§ 8.2.6** The Work shall be performed during designated working hours, except that in the event of emergency or when necessary to perform the Work in accordance with the requirements of § 8.2, Work shall be performed at Contractor's cost and expense on other shifts, overtime, Saturdays, Sundays, Holidays and at other times, if permission to do so has been obtained in writing from Owner. Without limiting the requirements of the preceding sentence, if the progress of the Work or of the Project has been delayed by any fault, neglect, act or failure to act of Contractor or any of its Subcontractors or suppliers, Contractor shall work such overtime, at Contractor's cost and expense as aforesaid, as Construction Manager shall deem necessary or desirable to make up for all time lost and to avoid delay in the completion of the Work and of the Project. The failure by Construction Manager to direct Contractor to engage in such overtime shall not relieve Contractor of the consequences of its delay.

**§ 8.2.7** Unless otherwise noted, the date of commencement of the Work is the date established in the Agreement. Contractor shall organize construction schedules as specified in § 3.10, Contractor's Construction Schedules. The commencement date shall not be postponed by the failure to act of the Contractor or of persons or entities for which the Contractor is responsible.

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**§ 8.2.8** The Construction Manager may direct acceleration of the Work so that it may be performed in advance of the schedules, time requirements and Project requirements. If so directed, Contractor shall increase its staff and/or work overtime. Contractor will not be entitled to additional compensation for Work performed outside of designated working hours, except as approved by Owner. Provided that Contractor is not in default under the Contract, and Owner has issued the aforesaid authorization, there shall be added to the Contract Sum as actual out-of-pocket amount equal to:

**.1** Additional premiums on wages actually paid, at rates that have been accepted by Construction Manager and Architect

**.2** Taxes imposed by law on such additional wages;

**.3** Premiums for worker's compensation and liability insurance if required to be paid on such additional wages.

Written authorization for overtime work that exceeds $500.00 for which Contractor intends to charge the Owner in any one week shall be invalid unless confirmed in writing by the Owner, it being understood that Owner's Designated Representative shall not have authority to authorize such overtime which exceeds $500.00 in any one week.

**§ 8.2.9** In no case shall the contractor delay the progress of the Work or any part thereof on account of changes in the Work or disputes caused by proposed or ordered changes in the Work or any disputes or dis-agreements as to the equitable value of such changes.

**§ 8.2.10** Contractor and Contractor's Surety shall be strictly accountable for completion as a condition to satisfactorily contractual performance.

**§ 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.~~Should Contractor be obstructed or delayed in the commencement, prosecution or completion of the Work, without fault on its part, by reason of failure to act, direction, order, neglect, delay or default of the Owner, Construction Manager, or the Architect; by changes in the Work; fire, lightning, earthquake, enemy action, act of God or similar catastrophe; by Governmental restrictions with respect to materials or labor, or by an industry-wide strike beyond Contractor's reasonable control, then Contractor shall be entitled to an extension of time lost by reason of any and all causes aforesaid, but no Claim for extension of time on account of delay shall be allowed unless a Claim in writing therefore is presented to Construction Manager with reasonable diligence but in any event not later than fifteen (15) days after the commencement of such claimed delay. Except for the causes specifically listed above in this sub-section, no other cause or causes of delays shall give rise to an extension of time to perform the Work. The granting of an extension of time is conditioned upon Contractor's timely submission of the aforesaid written notice. Except to the extent, if any, expressly prohibited by law, Contractor expressly agrees not to make, and hereby waives, any Claim for damages, including those resulting from increased labor or material cost, on account of any delay, obstruction or hindrance for any cause whatsoever, whether or not foreseeable and whether or not anticipated including but not limited to the aforedescribed causes, and agrees that the sole right and remedy therefore shall be extension of time, provided the requisite condition as to written Claim has been met.

**§ 8.3.2** ~~Claims relating to time shall be made in accordance with applicable provisions of Article 15.~~If Contractor claims an increase in the Contract Sum or an extension in the completion time required by reason of a change in the Work, Contractor shall give Construction Manager and Architect written notice within fifteen (15) days after Contractor's knowledge of the occurrence of the matter giving rise to such Claim. This notice shall be given by Contractor before proceeding to execute the changed Work, except in an emergency endangering life or property in which case Contractor shall proceed in accordance with § 10.3. No such Claim will be valid unless notice is given as

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required in this section. Contractor shall proceed to execute the Work, even though the increase or time extension has not been agreed upon.

**§ 8.3.2.1** Extension of time, if requested by the Contractor, shall only be considered after the Contractor has made reasonable effort to recover the lost time. These efforts shall be documented by the Contractor and submitted to the Architect.

**§ 8.3.2.2** An extension, or extensions, of time may be granted subject to the provisions of this article, but only after written application therefore by the contractor in accordance with Article 15.

**§ 8.3.2.3** An extension of time shall be only for the number of days of delay that the Construction Manager may determine to be due solely to the causes set forth in the application for extension of time. The Contractor shall not be entitled to receive a separate extension of time for each one of several causes of delay operating concurrently; but if at all, only the actual period of delay as determined by the Construction Manager.

**§ 8.3.3** ~~This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.~~Contractor shall not be allowed an extension of time unless Contractor has established to the satisfaction of the Owner, Construction Manager, and Architect that the delay claimed by Contractor is to a portion of the Work on the critical patch of the work schedule.

**§ 8.3.4** Under no circumstances will Contractor look to or make a Claim against Owner, Construction Manager, or Architect for the consequences of any delay resulting from directions given or not given by Construction Manager including scheduling and coordination of the Work or resulting from Architect's preparation of Drawings and Specifications or review of Shop Drawings.

**§ 8.3.5** When the Contract Time has been extended, such extension of time shall not be considered as justification for extra compensation to the Contractor for administrative costs or other similar reasons.

**§ 8.4 Damages for Delay**

**§ 8.4.1 Architectural Changes for Delay in Completion**. If the entire work is not fully completed within the maximum allowable time for completion specified in the agreement, including any extensions granted thereto, architectural charges incurred by the Owner, from the completion date thus established to the actual final Date of Substantial Completion of the work, shall be charges to the Contractor for failing to complete its work by the stipulated date and be deducted from the final monies due the Contractor. Such charges shall be determined at the rate of $750.00 per day per man for each and every man and day that the Architect and Construction Manager needs to furnish project management or an on-site Construction Manager Representative.

**§ 8.4.2 Liquidated Damages for Delay in Completion**. Failure to complete the work within the maximum allowable time for completion specified in the Agreement and/or the Milestone Schedule, including any extensions granted thereto, or failure to meet an intermediate milestone date as established by the Milestone Schedule, shall entitle the Owner to deduct from monies due to the Contractor, or to otherwise charge the Contractor, as liquidated damages the amount per calendar day of One Thousand Dollars ($1,000.00) for each calendar day beyond such maximum allowable time in the completion of the work. Such amount of liquidated damages shall be in addition to the $750 per day charges for delay described in Paragraph 8.4.1.

The absence of a liquidated damage amount and/or other criteria concerning same shall not preclude the Owner from exercising its rights. All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 8 shall not exclude recovery by Owner for damages (including but not limited to fees and charges of Engineers, Architects, Construction Manager, Attorneys and other professionals and court and litigation costs) for delay by the Contractor.

**§ 8.4.3 No Damage for Delay**. Each Prime Contractor agrees to make no claims for delay in the performance of this Contract occasioned by an act or omission, or act of the Owner of any of its representatives and agrees that such a claim shall be fully compensated for by an extension of time to complete the performance of the work as provided herein.

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**§ 9.2.1** Submit a printed schedule on AIA form G703 – Application and Certificate for Payment Continuation Sheet. Submit in duplicate to the Architect within 15 days after date of Owner-Contractor Agreement.

**§ 9.2.2** Format: Utilize the Table of Contents of the Project Manual. Identify each line item with number and title of the Specification Section for each Project site. Provide breakdown of both labor and materials.

**§ 9.2.3** Include within each line item a direct proportional amount of contractor's overhead and profit.

**§ 9.2.4** Line item for Record Drawings which are to be turned over to the Owner at the end of the Project shall not be less than o.15 percent of the Contract price.

**§ 9.2.5 Schedule of Contract Values**

**.1** The list of items shall include all items included in all Divisions and Sections of the specifications and shall be shown as separate line items.

**.2** The following items shall also be listed separately as line items (with their respective values):

- Bond and Project Insurance.
- Mobilization and Demobilization.
- Superintendence.
- Training, Operations and Maintenance Manual, Construction Record Documents.
- Each Allowance associated with the Contract.
- Each Alternate accepted.
- Each Change Directive as it is issued; to be listed below the associated allowance.
- Each Change Order as it is issued.
- Warranties.
- Records Drawings.
- Temporary Facilities.
- Cleaning.
- Submittals.
- Items to be Completed List.

**.3** Contractor shall maintain and keep current all changes to the Schedule of Values caused by Change Orders, Construction Change Directives or other authorized changes. Such revised Schedule of Values shall be presented monthly with the Application for Payment.

**§ 9.3.1** ~~At least fifteen days before the date established for each progress payment, the Contractor shall submit to the Construction Manager an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner, Construction Manager or Architect require, such as copies of requisitions, and releases of waivers of lien from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.~~Applications for payment shall be made monthly on the current AIA Form G732-2019 Application and Certificate for Payment and G703 Continuation Sheet for operations completed in accordance with the Approved Schedule of Values. Applications shall be based on the contract prices of labor and materials incorporated into the Work and of materials suitably stored and secured up to the last day of the previous month, less retainage and less the aggregate of previous payments. Change orders when approved shall be listed at the bottom of the last sheet of the payment application.

**§ 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.~~At least twenty (20) days prior to date established for each progress payment, each Contractor shall submit to the Construction Manager for its review, a preliminary pencil copy of an itemized Application for Payment completed in accordance with the approved Schedule(s) of Values.

**§ 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.~~Such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives but not included in Change Orders. Such items, if anticipated to be paid from an Allowance, shall be listed under that associated Allowance.

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**§ 9.3.1.3** Such applications may not include requests for payment of amounts the Contractor does not intend to pay to a Subcontractor or material supplier because of a dispute or other reason.

**§ 9.3.1.4** All supporting data requested by the Construction Manager and Architect from Subcontractors and material suppliers necessary to substantiate the Contractor's right to payment shall be furnished by the Contractor.

**§ 9.3.1.5** Until the Contract-scheduled date of Substantial Completion (including authorized adjustment), the Owner shall pay 95% of the amount due the Contractor on account of progress payments, less an amount equal to 250% of the amount of any Claims, liens, or judgments against the Contractor which have not been satisfactorily discharged.

**.1** Retainage resulting from § 9.3.1.5 shall be 5% plus an amount equal to 200% of the amount of any Claims, liens, or judgments against the Contractor which have not been satisfactorily discharged.

**.2** At Substantial Completion, when satisfied with the progress of the Work, the Owner, with Consent of Surety, may adjust the amount retained from previous progress payments in accordance with § 9.8.3.

**.3** The full retainage may be reinstated if the manner of completion of the Work and its progress do not remain satisfactory to the Owner and the Architect, if the Surety withholds his consent or for other good and sufficient reasons.

**§ 9.3.1.6** Each Contractor shall submit three (3) final copies of their Application for Payment, incorporating those revisions noted on the pencil copies, to the Construction Manager within two (2) days after being notified that the draft copy, with revisions, is acceptable.

**§ 9.3.1.7** The final copies of each Application for Payment (AIA Form G732-2019) shall be signed by an officer of the Contractor whose signature shall be notarized in the space provided.

**§ 9.3.1.8** Applications shall be based on the completed Work as described above less retainage, and less the aggregate of previous payments. Change Orders when approved shall be listed at the bottom of the last sheet of the payment application.

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**§ 9.3.2.1** Procedures required by Owner shall include, but are not necessarily limited to, submission by the Contractor to the Construction Manager and Architect of bills of sale and bills of lading for such materials and equipment, provision of opportunity for the Construction Manager's and Architect's visual verification that such materials and equipment are in face in storage; and, if stored off-site, submission by the contractor of verification that such materials and equipment are stored in a bonded warehouse.

**§ 9.3.2.2** All such materials and equipment, including materials and equipment stored on-site but not yet incorporated into the Work, and upon which partial payments have been made, shall become the property of the Owner. The care and protection of such materials and equipment shall remain the responsibility of the Contractor until incorporation into the Work, including property storage and maintenance of insurance coverage against theft, damage and fire on a replacement cost basis without voluntary deductible.

**§ 9.3.2.3 Stored Materials**

**.1** If the Contractor intends to request payment for materials stored on the site in accordance with the provisions of the Contract Documents, he must identify same on the current Contractor's Application for Payment form. The value of **previous** months' "stored materials" shall be included in the "Work Completed" column of the current application.

**.2** The relationship of labor and materials as indicated on the Payment Application shall be the basis for establishing the rate of payment for the transfer of material stored to materials installed.

**.3** All such materials and equipment, including materials and equipment stored on-site but not yet incorporated into the Work, upon which partial payments have been made, shall become the property of the Owner.

**.4** Payment for stored materials shall be in the amount of 95% of the value of stored materials less 5% retainage.

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**§ 9.3.3.1** The Contractor shall keep the Owner and the Owner's property (including funds for payment under the Project) free from all liens, legal or equitable, arising out of Contractor's Work hereunder. If any such lien is filed with the Owner by anyone claiming by, through or under the Contractor, the Contractor shall discharge the lien within 10 days of the filing thereof. The Contractor further expressly agrees to defend the Owner, at the Contractor's sole expense, against any actions, lawsuits or proceedings brought against the Owner as a result of liens filed against payments due the Contractor or the Work, the site of any of the Work, the Project site and any improvements thereon or any portion of the property of the Owner. The Contractor hereby agrees to indemnify and hold the Owner harmless against any such liens or Claims of lien and agrees to pay any judgment or lien resulting from any such actions, lawsuits or proceedings. The Owner agrees to release any payments with as a result of a duly filed lien, upon compliance by the Contractor with the applicable discharge or vacatur provisions of the Lien Law.

**§ 9.3.4** The Contractor and all of its subcontractors shall submit to the Owner, within thirty (30) days after issuance of their first certified payroll and every thirty (30) days thereafter, a transcript of the original certified payroll record, as provided by the Labor Law, subscribed, and affirmed as true under the penalties of perjury for the Contractor and all its Subcontractors. Failure to do so shall be cause for the Owner to withhold payment until such records are received.

**§ 9.3.5** When the Construction Manager or Architects requires substantiating information, submit data justifying dollar amount in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description."

**§ 9.3.6** The Contractor further expressly undertakes to defend the Owner, at the Contractor's sole expense, against any actions, lawsuits or proceedings brought against Owner as a result of liens filed against the Work, the site of any of the Work, the project site, and any improvements thereon, payments due the Contractor or any portion of the property of any of the Owners (referred to collectively as liens in §9.3.3). The Contractor hereby agrees to indemnify and hold Owner harmless against any such liens or claims of lien and agrees to pay any judgment or lien resulting from any such actions, lawsuits, or proceedings.

**§ 9.3.7** The Owner shall release any payments withheld due to a lien or a claim of lien if the Contractor obtains security acceptable to the Owner or a lien bond which is: (1) issued by a surety acceptable to the Owner, (2) in form and substance satisfactory to the Owner, and (3) in the maximum amount prescribed by law. By posting a lien bond or other acceptable security, however, the Contractor shall not be relieved of any responsibilities or obligations under this § 9.3, including, without limitation, the duty to defend and indemnify the Indemnities. The cost of any premiums incurred in connection with such bonds and security shall be the responsibility of the Contractor and shall not be part of, or cause any adjustment to, the Contract Sum.

**§ 9.3.8** The Contractor agrees to waive any right which it may have to assert a mechanic's or other lien against the Project site and any improvements thereon, including, without limit, the Work itself. Furthermore, the Contractor will cause a similar provision, waiving any right to a mechanic's or other lien against the property, to be included in all of its subcontracts, any subcontracts, and all contracts with material suppliers. Upon execution of the Agreement, the Contractor shall also execute the waiver of lien attached to the Agreement and made a part thereof as an Exhibit.

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**§ 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 and as permitted by State Law, 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

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**.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.~~Documents; or

**.8** any other breach of this Agreement.

...

**§ 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,~~ 30 days after receipt, and shall so notify the Construction Manager and Architect.

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**§ 9.6.9** Upon Substantial Completion of the entire Work, the Contractor shall submit a requisition for the "contract balance". The Owner shall pay the remaining amount less the greater value of a lump sum of $10,000 OR the sum of two- and one-half times the value of any items to be completed plus an amount necessary to satisfy any outstanding Claims, liens, or judgments against the Contractor. Until all remaining items of Work are satisfactory completed or corrected, the Owner may hold all retainage, including monies for all "uncompleted" items, until all items are completed, and closeout submittals are complete.

**§ 9.6.9.1** Contractors' requests for discontinuance of retainages shall be accompanied by a properly executed copy of the "Consent of Surety to Reduction in or Partial Release of Retainage", AIA Document G707A.

**§ 9.6.10 Retainage**

**§ 9.6.10.1** Applications for Payment shall include a retainage amount of not less than five percent (5%) of the value of the completed work. Reduction of retainage shall only be approved upon completion of the Work and when authorized by the Owner in writing.

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

...

**§ 9.8.3.1** No partial payments will be made after the time fixed for the completion of the Work or the time to which completion may be extended under the terms of the Contract, until the full and final completion and acceptance of all Work herein agreed upon.

**§ 9.8.3.2** Where project includes heating and/or air conditioning or other systems that are not put into operation at the time of occupancy, a sum shall be withheld until these systems have operated to the general satisfaction of the Architect. The retained amount shall approximate 5% of the cost of the systems as determined by the cost breakdown submitted.

**§ 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.~~Completion or this Agreement.

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**§ 9.8.6** If the Architect and/or the Construction Manager are required to inspect the Work more than two (2) times prior to certifying the Work as being substantially complete on account of the discovery of one or more items that are not sufficiently complete, the Contractor shall be liable to the Owner for the amount of any costs, additional fees or compensation due from or paid by the Owner to the Architect and/or the Construction Manager for the additional inspections.

...

**§ 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.~~used. The Contractor will provide the Owner and Construction Manager with photographs documenting the condition of the space to be occupied. The photographs must be dated and supplied within three (3) business days of the inspection. Any subsequent damage to the space which cannot be confirmed by the Contractor's photographs (as occurring as a result of the Owner's occupancy) will be repaired by the Contractor at no additional cost to the Owner.

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**§ 9.10.1.1** If the Work is not accepted by the Owner after final inspection and additional time is required to complete items identified during the final inspection, the date starting the one-year correction period described in Article 12 shall be set by the Architect at its discretion.

**§ 9.10.1.2** If the Architect and Construction Manager are required to perform additional inspections subsequent to the "final inspection" because the Work fails to comply with the requirements of the Contract, the amount of compensation paid to the Architect and Construction Manager by the Owner for additional services shall be deducted from the final payment to the Contractor.

**§ 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~~ Manager:

...

(5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and ~~(6),~~

(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.

(a) 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.

**§ 9.10.2.1** In addition to the submittals requested in § 9.10.2 above, the Contractor shall submit releases or waivers of liens from each Subcontractor, material supplier, and others with lien rights against the property of the Owner and shall submit a list of such parties.

...

**.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.~~payment; or

**.5** Costs, loss or damages sustained, either prior to or subsequent to such payment, as a result of any breach of the Contract, or any wrongful act or omission of the Contractor or any Subcontractor.

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**§ 10.1.1** Contractor is fully responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work and the Work site consistent with applicable laws and regulations, and generally accepted standards in the construction industry. Contractor acknowledges and agrees that it is fully responsible for the supervision and control of the Work and of Contractor's employees, subcontractors and/or suppliers, (and any party employed directly or indirectly by any of them, or for whom any of them are legally responsible) and the means, methods and manner in which the Work is performed.

**§ 10.1.2** Contractor specifically agrees to provide all necessary equipment, give all required notices, perform all required tests, and to employ all necessary safety measures and procedures to protect its employees, agents, subcontractors, and all other persons at t5he Project site from any hazards created directly or indirectly by Contractor's operation or performance of the Work, and any hazards which are not created by Contractor's operations or performance of the Work to which such parties are exposed at the Project site as a result of Contractor's operations or performance of the Work. In the event that equipment or safety devices are required, Contractor agrees that it wil obtain such equipment or safety devices and employ same at its sole expense, and will strictly adhere to all provisions of the Occupational Safety and Health Act, as well as any State statues, codes, rules and regulations pertaining to the safety or property as may be deemed applicable to the Contractor's work or the work of any person or party directly or indirectly employed by Contractor or for whom contractor is responsible. Contractor agrees that it shall be Contractor's sole responsibility to ensure that each of its employees, subcontractors and suppliers are also fully aware and in compliance with all such statutes, codes, rules and regulations at all times.

**§ 10.1.3** From the commencement until the acceptance of the Work, Contractor shall be solely responsible for the care of the Work covered by the Contact and for the materials, supplies and equipment delivered at the Site intended to be used in the Work, and all injury or damage to the same from whatever cause shall be made good at this expense before the final payment is made. Contractor shall provide suitable means of protection for and shall protect all materials intended to be used in the Work, all work in progress, and all completed work. Contractor shall take all necessary precautions to prevent injury or damage to the Work by flood, fire freezing or from inclemencies of the weather.

**§ 10.1.4** Not by way of limitation of the foregoing, at the end of each workday, Contractor shall secure all power tools and other potentially dangerous tools and equipment and shall remove means of access to areas of the Work site, so as to further protect the safety of occupants of the premises during such off-work hours.

**§ 10.1.5** Contractor's obligations under this section are not dependent upon any question of negligence on it part or on the part of its officers, agents, servants or employees, and neither the approval by the Architect or the Owner to Architect to call attention to improper or inadequate methods or to require a change in methods nor the neglect of the Architect or the Owner to direct Contractor to take any particular precautions or to refrain from doing any particular thing shall excuse the Contractor from his obligations hereunder in case of any such injury to person or damage to property. The provisions of this section are intended for the sole benefit and protection of the Owner and shall not create any cause of action in favor of any person, corporation entity, other than the Owner.

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**§ 10.2.2.1** The Contractor acknowledges that certain applicable laws, including, but not limited to, Sections 240 and 241 of New York State Labor Law, may impose liability on the Owner for injuries to persons employed by the Contractor or by its Subcontractors or Sub-subcontractors. As between the Owner and the Contractor (or any of the Contractor's Subcontractors or Sub-subcontractors or any persons for which any of them shall be responsible), the Contractor shall be solely responsible for compliance with all such laws to the extent they pertain to the safety or protection of persons on the Project site or performing the Work. Any claim, charge, penalty or cause of action arising out of or on account of any such law shall be subject to Section 3.18.

...

~~If either party suffers injury or damage to person~~ **Injury or Damage to Person or Property.** If the Contractor suffers injury or damage to persons or property because of an act or omission of the ~~other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party~~ Owner or of any of the Owner's employees or agents or any others for whose acts the Owner is legally

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responsible, the Contractor shall give written notice thereof to the Owner and the Architect within a reasonable time not exceeding ~~21~~ 2 days after ~~discovery.~~ first observance. The notice shall provide sufficient detail to enable ~~the other party to investigate the matter.~~to Owner to investigate the matter. If a Claim for additional cost or additional time is related to this Claim, it shall be made in accordance with the provisions of Article 15.

**§ 10.2.9 Restoration**. If during the construction, public or private property is damaged or destroyed as a result of its Work, the Contractor responsible shall, at its own expense, restore such property to a condition equal to that existing before such damage or injury was done, by cleaning up, repairing, rebuilding or replacing it, or otherwise making good such damage or destruction in an acceptable manner.

**§ 10.2.10 OSHA**. In addition to all requirements set forth herein, all Contractors and Subcontractors who perform any Work under this Contract will fully comply with the provisions of the Federal Occupational Safety and Health Act (OSHA) of 1970 and with any rules and regulations pursuant to the Act. This requirement shall apply continuously and not be limited to normal Working hours. The duty of the Construction Manager, Architect to conduct construction review of the Contractor's or its Subcontractor's performance is not intended to include review of the adequacy of the Contractor's or its Subcontractor's safety measures in, on or near the construction site or buildings.

**§ 10.2.11 Welding**:

**.1** All welding shall be done in accordance with the American Welding Society Code for Arch Welding Society, certified for current year.

**.2** When cutting or welding is to be done, the Owner **MUST** be notified prior to start. In addition, the Contractor for the Work shall provide a **fire guard** with proper fire extinguisher for duration of cutting and welding work.

**.3** A welding curtain is to be installed around area where welding or cutting is to be done. No welding machines will be ties into electric panels without express permission from the Owner. Portable gasoline driven generators may **not** be used without the expressed permission of the Owner.

**.4** Obtain Owner's permission for each location in existing building where welding is required. Owner's stipulated requirements shall be adhered to.

**§ 10.2.12 Open Burning**. Open burning on the site is prohibited. All possible precautions shall be taken to prevent fires.

**§ 10.2.12.1** The Contractor shall be required to keep fire alarm operational at all times or provide fire watch approved by Fire Marshal.

**§ 10.2.13** When all or a portion of the Work is suspended for any reason, the Contractor shall securely fasten down all coverings and protect the Work from damage by any cause.

**§ 10.2.14** The Contractor shall promptly report, in writing, to the Construction Manager, Architect and the Owner all accidents arising out of or in connection with the Work that causes property damage, personal injury or death, giving full details and statements of any witnesses. In addition, if death, serious personal injury or serious property damage is caused, the accident shall be reported immediately by telephone or messenger to the above parties."

**§ 10.2.15** The Contractor shall be solely responsible for the conditions which develop during construction and in the event any structure is dislocated, over strained, or damaged so as to affect is usefulness, the Contractor shall be solely responsible. The Contractor shall take whatever steps necessary to strengthen, relocate or rebuild the structure to meet requirements.

**§ 10.2.16** Free access to fire hydrants and standpipe connections shall be maintained at all times during construction operations, and portable fire extinguishers shall be provided by the Contractor and made conveniently available throughout the construction site. The Contractor shall notify its employees and subcontractors of the location of the nearest fire alarm box at all locations where the work is in progress.

The Contractor agrees that any unsatisfied claim of the Owner and/or Construction Manager arising from obligations in this Article 10 shall be set off or deducted from payments due the Contractor.

**§ 10.2.17** No equipment, other than equipment with rubber tires, will be allowed on any existing or new pavement

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within the limits of the contract, UNLESS THE PAVEMENT HAS BEEN FIRST PROTECTED WITH PLANKING OR BY OTHER MEANS APPROVED BY THE CONSTRUCTION MANAGER.

**§ 10.2.18** From the commencement to the completion of the Project, the Contractor shall keep the parts of the work and the buildings free from accumulation of water no matter what the source or cause of water.

**§ 10.2.19** The Contractor shall be responsible for all costs incurred by the Owner caused by false security alarms set off by the Contractor. Costs shall include custodial response charges, Construction Manager's charges, etc.

**§ 10.2.20** Temporary partitions are to be constructed where shown on drawings or where otherwise required for safety of the public or to prevent dust from entering occupied areas. Partitions shall be dustproof from floor to ceiling (if existing condition is a drop in tile ceiling, Contractor shall remove tile and install partition to structure above). In addition to framing and sheetrock partition to have plastic on the work area side. If an access door is required, an alternating 3 layer plastic system shall be used. The door shall be a standard hollow metal door with lockset and closer. Keys shall be distributed to the prime contractors, Owner and Construction Manager.

**§ 10.2.21** During construction, the General Contractor shall be responsible for maintaining a watertight structure. This shall include additions and existing buildings. The Contractor shall be responsible for temporary roofing, tarps, and other protection at roofs, cavity walls, etc. Should the Contractor fail to provide adequate protection, causing flooding, damage, or other disturbance to the existing building, Contractor shall be responsible for all costs associated with clean up and repairs. Inasmuch as flooding and damage have safety implications to the general public, clean up and repairs may be made by the Owner without warning to the Contractor. Administration costs incurred by the Owner, Construction Manager and Architect will also be back charged to the Contractor. The Contractor, by entering into contract with the Owner agrees to be liable for these costs.

**§ 10.2.22** The Contractor and their Subcontractors shall indemnify and hold harmless the Owner, Architect, Construction Manager and any of their employees from any and all claims, damages, losses, suits, obligations, fines, penalties, costs charges and expenses which may be imposed upon or incurred by or asserted against any of them by reason of any act or omission of such Contractor or any Subcontractor or any person or firm directly or indirectly employed by such Contractor, for any above suits, obligations, charges and/or expenses imposed upon the Construction Manager for the act and/or omissions of any Contractor or Subcontractor that resulted in an incident and/or accident causing personal injury and/or property damage.

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

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~~In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.~~**§ 10.4.1 1** In an emergency affecting life, the Work, or the Owner or Owner's property, Contractor, without special instructions or authorization from Construction Manager or Architect, shall take the action necessary to deal adequately with such emergency. Notice of any such action shall be given by Contractor to Construction Manager, Architect and Owner as soon as is practicable, but not later than 2 days following the occurrence.

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**§ 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 occurrence-based insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is ~~located.~~ located and rated B+ or better by A.M. Best Company and to which the Owner has no reasonable objection. 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.

**§ 11.1.1.1** Within the time period set by the Owner after award of the Contract, and before the effective date of the Agreement, the Contractor shall cause the authorized representative of the insurance company to completely fill out and execute the Certificate of Insurance form which is bound with the Agreement section of the Contract Documents, such instrument certifying the kinds and amounts of insurance being issued, including statement that coverage provided under the policies will not be canceled or materially changed until at least 30 days prior written notice has been given to the Owner. The Contractor shall also furnish the Owner one (1) duplicate of the original policy covering each kind of insurance issued. Each subcontractor shall follow the identical procedure, and it shall not commence work until the Certificate of Insurance, including any requested duplicate policies, has been submitted to and approved by the Owner. The Contractor shall furnish to the Owner insurance certificates for all subcontractors with the amount of insurance as required herein. Contractor shall include New York Construction Certificate of Liability Insurance Addendum – Accord Form 855 with the Certificate of Insurance.

**§ 11.1.1.2** All claims against the Contractor or its subcontractors, arising from the performance of the work or conditions incidental thereto, must be investigated immediately by the insurance company furnishing the applicable coverage. The Contractor shall require the insurance company to furnish, to the Architect and Owner, written reports following the investigation and the disposition of each claim or demand by the owner; a status report shall be provided to the Owner and Architect on all claims more than two months outstanding.

**§ 11.1.1.3** All insurance coverage furnished by subcontractors shall remain in force until their work has been completed and the subcontractor does not intend to gain further access to the site, and the Contractor has released said subcontractor from further liability associated therewith. All liability insurance furnished by the Contractor shall remain in force during the time intervals defined Article 8 – Time in General Conditions of the Contract for Construction and Supplementary Conditions. All property insurance furnished by Contractor shall remain in force until Owner approves Architect's Certificate of Substantial Completion and has made final payment to Contractor.

**§ 11.1.1.4** The kinds and amounts of insurance are as follows:

**.1** **Worker's Compensation and Employer's Liability**: A policy shall be issued in compliance with the provisions of the Worker's Compensation Law.

**.2** **Non-Occupational Disability Benefits**: A policy shall be issued in compliance with the provisions of the Disability Benefits Law.

**.3** **Comprehensive General Liability** having limits of not less than:

| | |
|---|---|
| General Aggregate (except Products Complete & Operations) | $2,000,000 |
| Products Complete & Operations Aggregate | $1,000,000 |

**.4** **BODILY INJURY LIABILITY + PROPERTY DAMAGE LIABILITY** having limits of not less than the following:

| | |
|---|---|
| Combined single limit | $1,000,000.00 Each Occurrence |
| | $2,000,000.00 Aggregate |

for all damages arising during the life of the Contract, and shall include at least the following designated hazards:

a. Premises and Operations
b. Independent Contractors
c. Completed Operations, including products
d. Broad Form Property Damage, including "XCU" (explosion, collapse, and underground)

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e. Contractual Liability, covering indemnification assumed per requirements of Article 11 (AIA Document A232 -2019 General Conditions of the Contract for Construction, Construction Manager as advisor edition and Supplementary Conditions.
f. Fire damage.
g. Personal and Advertising Injury with Employment Exclusion deleted.
h. Labor Law coverage is mandatory for all General Liability Policies.

Completed projects shall carry General Liability coverage for 2 years after substantial completion.

**.5 Pollution/Special Hazards Liability:** Provide coverage for legal liability and expense for damage to property or bodily injury and death with respect to the removal, disturbance, handling, and disposal of contaminated or hazardous materials under this contract by the Contractor or any person or organization employed directly or indirectly by the Contractor. (NOTE: This coverage is required only for those contracts which contain work involving Asbestos Abatement Lead Hazard Control work, PCB Containing Material Removal, or Petroleum Remediation.) If included in Contractor's Umbrella Policy, this shall be detailed in the Umbrella Policy Documents.

| | |
|---|---|
| Combined single limit | $1,000,000.00 Each Occurrence |
| | $2,000,000.00 Aggregate |

**.6 Comprehensive Automobile Liability** (including non-owned and hire automobiles), having limits of liability not less than $1,000,000.00.

**.7 Umbrella Liability** (mandatory):

$2,000,000.00 for Contracts under $2,000,000.00
$5,000,000.00 for Contracts exceeding $2,000,000.00
$10,000,000.00 for Contracts exceeding $7,000,000.00
$15,000,000.00 for Contracts exceeding $10,000,000.00
Labor Law Coverage is mandatory for all Umbrella Liability Policies

**.8 Property Insurance (Builders Risk/Installation Floater)**: To be provided by the Owner.

Each Contractor is responsible for all tools, equipment, materials, Work, etc., until Substantial Completion and possession by the Owner. Each Contractor shall provide insurance for theft as he may require for himself, his Subcontractors, and his employees' protection). The insurance coverage referred to in this subparagraph shall be in accordance with a standard Builder's Risk Policy used in the State where the project is located.

The Owner does not waive any rights of recovery or provide any waivers of subrogation for losses caused by negligent acts of the aforementioned parties. Any right of recovery or subrogation shall not affect payment of claims made by the Property Insurer to all the aforementioned parties including any negligent party.

**.9 Owner's Protective Liability**: Furnish to the Owner complete Owner's Protective Liability Insurance in the amounts specified in Coverage .3 above for Personal Bodily Injury Liability Insurance and for Property Damage Liability Insurance.

**.10 Additional Coverages**: The Architect, Construction Manager and Owner along with their respective officers, agents, and employees shall be named as additional insured for ongoing operations and products/completed operations on all Contractors' comprehensive general and automobile liability policies, bodily injury and property damage liability policies and umbrella liability policies which all must be primary and non-contributory with respect to additional insured's.

**.11 Per Project Aggregate**: Provide full aggregate general liability limits of each project.

**.12 Waiver of Subrogation**: To the fullest extent permitted by state law, a waiver of subrogation clause shall be added to the general liability, auto, and worker's compensation policies in favor of the Owner, its officers, agents, or employees with respect to this project. The Owner does not waive any rights of recovery or provide any waivers of subrogation for losses caused by negligent acts of the

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aforementioned parties. Any right of recovery or subrogation shall not affect payment of claims made by the Property Insurer to all the aforementioned parties including any negligent party.":

**§ 11.1.1.5** The Contractor shall not commence Work at the project site under this Contract until Contractor has obtained all the insurance required herein and until such insurance has been accepted by the Owner, nor shall Work be commenced on their subcontracts until the same insurance for the Subcontractors has been obtained. The Owner and Architect may request copies of subcontractors' insurance certificate(s) and are to be provided to Owner and Architect by the Contractor upon request.

**§ 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.~~Each Contractor shall furnish Bonds covering the faithful performance of the Contract and the payment of all obligations arising thereunder in the amount of 100% of the accepted bid on the form indicated in the Information to Bidders, with such Sureties as may be agreeable to the Owner. The Premiums shall be paid by the Contractor.

**§ 11.1.2.1** The Contractor shall deliver the required Bond dated as of the date of the Contract or applicable letter of intent, whichever is earlier, to the Owner no later than the date of execution of the Contract, or if the Work is commenced prior thereto in response to a Notice to Proceed, the Contractor shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such Bond will be issued."

**§ 11.1.2.2** The Payment and Performance Bonds shall be written on AIA Document A312 Series and the Warranty Bond shall be written on AIA Document A313-2020 or such other forms as the Owner may approve.

**§ 11.1.2.3** The Contractor 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.

**§ 11.1.2.4** The Contractor shall provide the name and address of Surety for process of service as well as supply the contact information for the Surety representative responsible for the Bond, including the individual's name, address, telephone number, fax number and email address."

**§ 11.1.2.5** The Performance and Payment Bonds shall remain in full force and effect through the warranty period.

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**§ 11.1.3.1** The Contractor shall not commence Work at the project site under this Contract until Contractor has obtained all the insurance required herein and until such insurance has been accepted by the Owner, nor shall Work be commenced on their subcontracts until all similar insurance required of the Subcontractors has been obtained and accepted by the Owner.

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**§ 11.3.1.1** As relates to § 11.3, the Owner does not waive any rights of recovery or provide any waivers of subrogation for losses caused by negligent acts of the aforementioned parties. Any right of recovery or subrogation shall not affect payment of claims made by the Property Insurer to all the aforementioned parties including any negligent party.

...

**§ 11.6 Appearance of Counsel**

**§ 11.6.1** If an action for bodily injury and/or property damage is commenced against Owner or Architect, which in the opinion of the Owner's Architect's legal counsel or insurance coordinator is covered by the indemnity provisions of Article 3, Contractor shall, upon Owner's written request, promptly cause Contractor's insurance carrier to have its attorneys appear timely in the action on behalf of Owner and/or Architect and provide the defense of Owner and/or Architect.

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**§ 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. *Exception*: Any correction made under this 12.2.2 or under any other guarantee or warranty required by or included in the Contract Documents shall likewise be subject to correction at Contractor's own expense if it is found not to be in accordance with the Contract Documents within one year after the date that such correction is accepted by the Owner.

**§ 12.2.2.4** The guarantee-warrantees required by § 12.2.2 shall be written in a form acceptable to the Owner, properly sworn to and signed by a responsible officer of the Contractor's firm.

**§ 12.2.2.5** The Performance and Payment Bonds shall remain in effect and full force through this period.

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**§ 12.3.1** The Owner, with the advice of the Construction Manager and assistance of the Architect, shall determine the adjustment to the Contract Sum. The Contractor shall bear all direct, indirect and consequential costs attributable to the evaluation of and decision to accept such defective Work. Such costs for the efforts of the Construction Manager and Architect (at their current billing rates) and any other costs to the Owner will be charged to the Contractor through Change Order procedures.

...

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

...

~~**§ 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.~~

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**§ 13.4.7** Upon request the Contractor shall deliver test samples of any of the materials specified in these specifications to an independent testing agency. The Owner shall pay for the test of samples, which are found to conform to the specifications. The Contractor shall pay for the tests of samples, which do not conform to the specifications. This shall not relieve the Contractor of his obligations to perform specific tests described elsewhere in these specifications.

**§ 13.4.8** Where the specifications require part of the work to be specially tested and approved, it shall not be tested or covered up without timely notice thereof or consent thereto. Should any part of the work be covered up without notice, approval or consent, such part of the work shall be uncovered for examination at the Contractor's expense if the Owner shall so require.

**§ 13.4.9** Where operating tests are specified, the Contractor shall test the work as it progresses, on his own account, and shall make satisfactory preliminary tests in all cases before applying for official tests.

**§ 13.4.10** Tests shall be made in the manner specified, for the different branches of the work. Each test shall be made on the entire system for which such test is required, wherever practical. In case it is necessary to test portions of the work independently, the Contractor shall do so.

**§ 13.4.11** Should defects appear, they shall be corrected by the Contractor and the test repeated until the installation is acceptable.

**§ 13.4.12** When notice of tests is to be given to the Architect, it shall also be given to the Owner's Representative.

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**§ 13.4.13** All paragraphs wherein the Architect is entitled to additional compensation from the Contractor shall be revised to reflect that the Owner's Representative is also so entitled.

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at ~~the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.~~a rate of 1% per annum.

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**§ 14.1.3** If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon ~~seven~~ thirty days' notice to the Owner, Construction Manager and Architect, and upon the failure of the Owner to cure the alleged grounds for termination within 14 days following receipt of said notice, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

...

**.1** ~~repeatedly~~ refuses or fails to supply enough properly skilled workers or proper materials;

...

**.3** ~~repeatedly~~ disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or

**.4** otherwise is guilty of ~~substantial~~ breach of a provision of the Contract Documents.

**.5** files for bankruptcy or other debtor insolvency relief;

**.6** an act of omission by the Contractor that stops, delays, interferes with or damages the Work;

**.7** any other failure by the Contractor to perform any other terms and conditions of their Contract;

**.8** disregards the authority of the Owner.

...

**§ 14.3.2** The Contract ~~Sum and the Contract~~ Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. ~~Adjustment of the Contract Sum shall include profit.~~ No adjustment shall be made to the extent:

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

...

**§ 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, but is not required to, comply with the provisions of Article 15 when filing a Claim.

...

**§ 15.1.2.1** An additional Claim made after any initial Claim has been filed with the Owner, Construction Manager and Architect will not be considered unless submitted in a timely manner and in accordance with Article 15."

**§ 15.1.2.2** Any Claim shall be sufficiently detailed and descriptive to allow for a complete evaluation. The Contractor shall furnish any information requested by the Owner or Architect in connection with this investigation within ten (10) business days of that request. Failure to provide the requested information shall constitute a waiver of the Claim.

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**§ 15.1.2.3** All written Claims for additional cost, additional time, or damages shall include the time of occurrence, location and other identifying factors and shall be supported, at a minimum, by letters, photographs, journals and diaries, instructions, or other pertinent and applicable records, as the Architect and Owner may require.

**§ 15.1.3.1** Claims by ~~either the Owner or~~ other parties or the 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~~ Owner 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~~ the Contractor under this Section 15.1.3.1 shall be initiated within ~~21~~ 15 days after occurrence of the event giving rise to such Claim or within ~~21~~ 15 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~~ other parties or the 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** An additional Claim made after any initial Claim has been filed with the Owner and Architect will not be considered unless submitted in a timely manner and in accordance with Article 15.

**§ 15.1.3.4** 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 and Architect. 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
    1) Index of Issues (listed numerically)
    2) For **each** issue:
        (a) Background
        (b) Chronology
        (c) Contractor's position (reason for Owner's potential liability)
        (d) Supporting documentation of merit or entitlement
        (e) Begin each issue on a new page
D. 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.
E. Productivity exhibits (if appropriate)
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, 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;

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accounting adjustment records; and any other accounting materials necessary to support the Contractor's claim.

.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.

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

~~.1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and~~

~~.2~~ waiver includes, but is not limited to, damages incurred by the Contractor for principal office ~~expenses~~ expenses, including the compensation of personnel stationed there, for losses of financing, business ~~and reputation, and for loss of profit except anticipated profit arising directly from the Work.~~

~~This mutual waiver~~ losses and reputation damage, and for loss of profit. This waiver also is applicable, without limitation, to all consequential damages due to ~~either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.~~Owner's termination of the Contract in accordance with Article 14, and the Contractor's sole rights to payment in the event of any termination of the Contract by the Owner are limited to the payments expressly set forth in Article 14.

**§ 15.1.8 Limitation and Waiver of Money Damages**

**§ 15.1.8.1** Notwithstanding anything else set forth in the Contract Documents or otherwise, 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, impacts on schedule, schedule acceleration, schedule compression or by any breach of contract, delay in performance or other act of neglect by other Contractors or Subcontractors having Contracts for performance of any portion of Work. Except to the extent, if any, expressly prohibited by law the Contractor agrees not to make any Claim for such damages. 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. The Contactor understands that it hereby agrees not to make, and hereby waives, any Claim for damages for delay from any cause whatsoever, including but not limited to, those resulting from increased labor or material costs; schedule acceleration, schedule compression, directions given or not given by the Construction Manager, Owner or Architect, including but not limited to scheduling and coordination of the Work; the Architect's preparation of Drawings and Specifications; the Architect's review of shop drawings and requests for instruction(s); or on account of any delay, obstruction or hindrance for any other 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 no monetary recovery may be obtained by the Contractor for any of the foregoing against the Owner, Construction Manager or the Architect based upon any reason, and it is emphasized that the Contractor's sole remedy for any of the foregoing shall be an extension of time, if appropriate.

...

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

**§ 15.2.2** The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, ~~or~~ (5)

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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.~~the Claim, or (6) submit a schedule to the parties indicating when the Architect expects to take action.
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**§ 15.2.5** The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties, the Construction Manager, and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to ~~binding dispute resolution.~~litigation.

...

**§ 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.~~ mediation. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. ~~If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.~~

...

**§ 15.4 ~~Arbitration~~Litigation**

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

Claims that have not been satisfactorily resolved by other means shall be subject to litigation in accordance with law. The Contractor shall comply with any applicable statutory requirements regarding Notice of Claim and with any applicable Statute of Limitations provisions. In the event the Contractor serves a Notice of Claim to the Owner, the Owner may, as a condition precedent to litigation, require the Contractor to submit to an examination under oath by an attorney or other representative of the Owner, and to provide documentary evidence reasonably requested in connection with the examination. The venue of any litigation shall be New York State Supreme Court in the county in which the Project is located. The prevailing party of the litigation shall be entitled to reasonable attorneys' fees and necessary disbursements.~~**§ 15.4.1.1** A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.~~

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

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

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**§ 15.4.4 Consolidation or Joinder**

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

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

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

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# *Certification of Document's Authenticity*

*AIA® Document D401™ – 2003*

I, Katrina Asay, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 16:00:51 ET on 10/10/2023 under Order No. 2114414540 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A232™ – 2019, General Conditions of the Contract for Construction, Construction Manager as Adviser Edition, other than those additions and deletions shown in the associated Additions and Deletions Report.

*(Signed)*

Manager of Administration - Buildings Group

*(Title)*

October 10, 2023

*(Dated)*

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# Statement of Special Inspections – Architectural & MEP

Project: __ Alterations to Kuhl ES / Port Jervis High School and New Dugouts Project No.: 2019-011 PH2

Location: *10 Route 209, Port Jervis, New York 12771*

Owner: *Port Jervis City School District*

Design Professional in Responsible Charge: ***BCA Architects & Engineers, 798 Cascadilla Street, Ithaca, NY 14850***

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines:

☒ Structural ☒ Architectural ☒ Mechanical/Electrical/Plumbing ☐ Other:

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional (RDP) in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the RDP in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the RDP in Responsible Charge.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: ☐ Final Report Only ☐ at Completion ☐ Other:
☐ Monthly ☒ at Completion of each material

Prepared by:

Mark B. Kimball, P.E.
(type or print name)

Mark B. Kimball *10-10-2023*
Signature Date

Scott J. Duell, R.A. *10-10-2023*
Architect Date
Type name here

**Design Professional Seal**

Owner's Authorization:

Signature Date

Code Enforcement Officer:

Signature Date

# Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

| Yes | No | System | Yes | No | System |
|---|---|---|---|---|---|
| ☐ | ☒ | Steel Construction | ☐ | ☒ | Seismic Resistance |
| ☐ | ☒ | Cold Formed Metal Deck | ☐ | ☒ | Testing for Seismic Resistance |
| ☒ | ☐ | Concrete Construction | ☐ | ☒ | Sprayed Fire-Resistant Coatings |
| ☒ | ☐ | Masonry Construction | ☐ | ☒ | Mastic and Intumescent Fire-Resistant Coatings |
| ☐ | ☒ | Wood Construction | ☐ | ☒ | Exterior Insulation & Finish System (EIFS) |
| ☒ | ☐ | Soils and Foundations | ☒ | ☐ | Fire Resistant Penetrations and Joints |
| ☐ | ☒ | Fabricated Items | ☐ | ☒ | Smoke Control System |
| ☒ | ☐ | Wind Resistance | ☐ | ☒ | Alternate Materials & Systems / Special Cases |

| Special Inspection Agencies | Firm | Address, Telephone, e-mail |
|---|---|---|
| 1. **Special Inspector** | *TBD* | |
| 2. Inspector | *TBD* | |
| 3. Inspector | *TBD* | |
| 4. Testing Agency | *TBD* | |
| 5. Testing Agency | *TBD* | |
| 6. Other | | |
| 7. Registered Design Professional (RDP) for Structural Engineering | *BCA Architects & Engineers* | *327 Mullin Street*<br>*Watertown, New York 13601* |

Note: In accordance with BCNYS §1703.1.1 and §1704.2 the inspection and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

# Quality Assurance Plan

## Quality Assurance for Seismic Resistance

| | |
|---|---|
| Seismic Design Category | B |
| Quality Assurance Plan Required (Y/N) | N |

Description of seismic force resisting system and designated seismic systems subject to special inspections (BCNYS §1704.3.2):

*Ordinary Reinforced Masonry Shear Walls*

## Quality Assurance for Wind Requirements

| | |
|---|---|
| Basic Wind Speed (3 second gust) | *V ult=120mph (Highschool), 115mph (Dugouts)* |
| Wind Exposure Category | *B* |
| Quality Assurance Plan Required (Y/N) | *N* |

Description of wind force resisting system and designated wind resisting components subject to special inspections (BCNYS §1704.3.3):

*Ordinary Reinforced Masonry Shear Walls*

## Contractor Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a written Statement of Responsibility (BCNYS §1704.4).

| | | |
|---|---|---|
| BCA ARCHITECTS ENGINEERS | **BCA ARCHITECTS & ENGINEERS**<br>**Watertown / Ithaca / Saratoga Springs** | **STATEMENT OF SPECIAL INSPECTIONS AND TESTS**<br>As required by the Building Code of NYS (BCNYS) |

BCNYS §1704.3 requires the project Design Professional to complete the Statement of Special Inspections and Tests. Completion of the Statement of Special Inspections & Tests and submission to the Code Enforcement Officer with the Construction Permit Application as a condition for issuance of the Building Permit.

Project Title: Alterations to Kuhl ES / Port Jervis High School and New Dugouts

BCA Project #:2019-011 PH2 Client Project No:

Project Address: *10 Route 209, Port Jervis, New York 12771*

Building Information:

| Name of Person Completing this Statement | Phone | Date |
|---|---|---|
| *Scott Duell/ Mark Kimball* | *(607) 319-4053* | 10/10/2023 |

Comments

| **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** (the default spec sections listed may need to be modified) |
|---|---|---|---|---|---|---|
| **A. STEEL CONSTRUCTION** (AISC 360-16) | | | | | | |
| **1.** Minimum inspections prior to welding. | | X | AISC 360 Table N5.4-1 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **2.** Minimum inspections during welding. | | X | AISC 360 Table N5.4-2 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **3.** Minimum inspections after welding. | | X | AISC 360 Table N5.4-3 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **4.** Nondestructive Testing (NDT) of welded joints | | X | AISC 360 N5.5 AWS D1.1 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **5.** CJP Groove Weld NDT:<br>**a.** For Risk Category II<br>**b.** For Risk Category III and IV | | <br>10%<br>100% | AISC 360 N5.5 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **6.** Minimum inspections prior to high-strength bolting | | X | AISC 360 Table N5.6-1 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **7.** Minimum inspections during high-strength bolting. | | X | AISC 360 Table N5.6-2 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **8.** Minimum inspections after high-strength bolting. Document acceptance or rejection of bolted connections. | | X | AISC 360 Table N5.6-3 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **9.** Inspect fabricated or erected steel frame as appropriate to verify compliance with the construction and approved shop drawings. Inspect braces, stiffeners, member locations, and joint details. | | X | AISC 360 N5.7 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **10.** Inspect during placement of anchor rods and other embedment's supporting | | X | AISC 360 N5.7 | 1705.2.1 | ☐ | See inspection specific AISC details |

| 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 (the default spec sections listed may need to be modified) |
|---|---|---|---|---|---|---|
| structural steel for compliance with the construction and approved shop drawings. | | | | | | |
| **11.** Inspect Composite Construction prior to concrete placement:<br>**a.** Placement and installation of steel deck<br>**b.** Placement and installation of steel headed stud anchors<br>**c.** Document acceptance or rejection of steel elements | X | | AISC 360 N6.1 | 1705.2.1 | ☐ | See inspection specific AISC details |
| **B. COLD-FORMED STEEL DECK** (SDI QA/QC-17) | | | | | | |
| **1.** Inspection or Execution Tasks Prior to Deck Placement | | X | SDI QA/QC Table 1.1 A and B | 1705.2.2 | ☐ | |
| **2.** Inspection or Execution Tasks After Deck Placement | | X | SDI QA/QC Table 1.2 A, B and C | 1705.2.2 | ☐ | |
| **3.** Inspection or Execution Tasks Prior to Welding | | X | SDI QA/QC Table 1.3 A, B, C and D | 1705.2.2 | ☐ | |
| **4.** Inspection or Execution Tasks During Welding | X | | SDI QA/QC Table 1.4 A, B, C and D | 1705.2.2 | ☐ | |
| **5.** Inspection or Execution Tasks After Welding | | X | SDI QA/QC Table 1.5 A, B, C and D | 1705.2.2 | ☐ | |
| **6.** Inspection or Execution Tasks Prior Mechanical Fastening | X | | SDI QA/QC Table 1.6 A, B and C | 1705.2.2 | ☐ | |
| **7.** Inspection or Execution Tasks During Mechanical Fastening | | X | SDI QA/QC Table 1.7 A and B | 1705.2.2 | ☐ | |
| **8.** Inspection or Execution Tasks After Mechanical Fastening | | X | SDI QA/QC Table 1.8 A, B, C, D and E | 1705.2.2 | ☐ | |
| **C. OPEN-WEB STEEL JOISTS and JOIST GIRDERS** (SJI 100-15 and 200-15) | | | | | | |
| **1.** Installation of open-web steel joists and joist girders. | | | SJI 100<br>SJI 200 composite | Table 1705.2.3 | ☐ | |
| **a.** End connections – welding or bolted. | - | X | SJI CJ,SJI K,<br>SJI LH/DLH or SJI JG | Table 1705.2.3<br>2207.1 | ☐ | |
| **b.** Bridging – horizontal or diagonal<br>▪ Standard bridging<br>▪ Bridging differing from the SJI specs | - | X | SJI CJ,SJI K,<br>SJI LH/DLH or SJI JG | Table 1705.2.3<br>2207.1 | ☐ | |
| **D. COLD-FORMED STEEL TRUSSES SPANNING 60 FEET or GREATER** | | | | | | |
| **1.** Verify the temporary installation of restraint / bracing is installed per approved truss submittal. | | X | Approved truss submittal package | 1705.2.4 | ☐ | |
| **2.** Verify the permanent individual truss member restraint / bracing is installed per approved truss submittal | | X | Approved truss submittal package | 1705.2.4 | ☐ | |
| **E. CONCRETE CONSTRUCTION** | | | | | | |
| **1.** Inspect reinforcement. | - | X | ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3 | Table 1705.3, 1908.4 | ☒ | 03 2000 |
| **2a.** Reinforcing bar welding:<br>Verify weldability of reinforcing bars other than ASTM A706 | - | X | AWS D1.4;<br>ACI 318: 26.6.4 | Table 1705.3,<br>1705.3.1 | ☐ | |
| **2b.** Reinforcing bar welding: | | X | AWS D1.4;<br>ACI 318: 26.6.4 | Table 1705.3,<br>1705.3.1 | ☐ | |

| 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 (the default spec sections listed may need to be modified) |
|---|---|---|---|---|---|---|
| Inspect single-pass fillet welds, maximum $^{5}/_{16}$" | | | | | | |
| **2c.** Reinforcing bar welding: Inspect all other welds | X | | AWS D1.4; ACI 318: 26.6.4 | Table 1705.3, 1705.3.1 | ☐ | |
| **3.** Inspect anchors cast in concrete | - | X | ACI 318: 17.8.2 | Table 1705.3 | ☒ | 03 3000 |
| **4a.** Inspect anchors post-installed in hardened concrete members. | X | | ACI 318: 17.8.2.4 | Table 1705.3 See NYS IBC footnote b | ☒ | 03 3000 |
| **4b.** Inspect anchors post-installed in hardened concrete members - Mechanical anchors and adhesive anchors not defined in 4a. | | X | ACI 318: 17.8.2 | Table 1705.3 See NYS IBC Footnote b | ☒ | 03 3000 |
| **5.** Verify use of required design mix. | - | X | ACI 318: Ch. 19, 26.4.3, 26.4.4 | Table 1705.3, 1904.1, 1904.2, 1908.2, 1908.3 | ☒ | 03 3000 |
| **6.** Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete. | X | - | ASTM C172, ASTM C31; ACI 318: 26.5, 26.12 | Table 1705.3, 1908.10 | ☒ | 03 3000 |
| **7.** Inspect concrete for proper application techniques. | X | - | ACI 318: 26.5 | Table 1705.3, 1908.6, 1908.7, 1908.8 | ☒ | 03 3000 |
| **8.** Verify maintenance of specified curing temperature & techniques | - | X | ACI 318: 26.5.3-26.5.5 | Table 1705.3, 1908.9 | ☒ | 03 3000 |
| **9a.** Inspect prestressed concrete for: Application of prestressing forces | X | - | ACI 318: 26.10 | Table 1705.3 | ☐ | |
| **9b.** Inspect prestressed concrete for: Grouting of bonded prestressing tendons. | X | - | ACI 318: 26.10 | Table 1705.3 | ☐ | |
| **10.** Inspect erection of precast concrete members. | - | X | ACI 318: Ch. 26.9 | Table 1705.3 | ☐ | |
| **11.** Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams & structural slabs. | - | X | ACI 318: 26.11.2 | Table 1705.3 | ☐ | |
| **12.** Inspect formwork for shape, location, dimensions of the concrete member being formed. | - | X | ACI 318: 26.11.1.2(b) | Table 1705.3 | ☒ | 03 1000 |
| **F. MASONRY CONSTRUCTION** (TMS 402-13) (TMS 602-13) | | | | | | |
| **Level A**: ☐ (basic) (non-essential) Risk Category I, II or III designed using Prescriptive or Empirical design methods. **Level B**: ☒ (intermediate) (non-essential / essential) Risk Category I, II or III designed using Engineered design methods, or Risk Category IV using Prescriptive design method. **Level C**: ☐ (rigorous) (essential) Risk Category IV designed using Engineered design methods. | | | | | | |
| **Level A Quality Assurance of Masonry** (TMS 402-13/ACI 530-13/ASCE 5-13 Table 3.1.1) | | | | | | |
| **A1.** Verify compliance with the approved submittal and project specifications | | X | TMS 402, TMS 602, Table 3.1.1 | 1705.4 | ☐ | |

| 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 (the default spec sections listed may need to be modified) |
|---|---|---|---|---|---|---|
| **Level B Quality Assurance of Masonry** (TMS 402-13/ACI 530-13/ASCE 5-13 Table 3.1.2) | | | | | | |
| **Minimum Tests:** | | | | | | |
| **a.** Verification of slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Art. 1.5 B.1.b.3 for self-consolidating grout | | X | TMS 402 Table 3.1.2 | 1705.4 | ☒ | 04 2000 |
| **b.** Verification of f' m and f' acc in accordance w/ specification Art. 1.4B prior to construction except where exempted by TMS 402 | | X | TMS 402 Table 3.1.2 | 1705.4 | ☒ | 04 2000 |
| **B1.** Verify compliance with approved submittals | | X | TMS 602 Art. 1.5 | 1705.4 | ☒ | 04 2000 |
| **B2. As masonry construction begins, verify the following are in compliance:** | | | | | | |
| **a.** Proportions of site-prepared mortar | | X | TMS 602 Art. 2.1, 2.6 A | 1705.4 | ☒ | 04 2000, 04 0511 |
| **b.** Construction of mortar joints | | X | TMS 602 Art. 3.3 B | 1705.4 | ☒ | 04 2000 |
| **c.** Grade and size of prestressing tendons and anchorages | | X | TMS 602 Art 2.4 B, 2.4 H | 1705.4 | ☐ | |
| **d.** Location of reinforcement. | | X | TMS 602 Art. 3.4, 3.6 A | 1705.4 | ☒ | 04 2000 |
| **e.** Prestressing technique | | X | TMS 602 Art. 3.6 B | 1705.4 | ☐ | |
| **f.** Properties of thin-set mortar for ACC masonry | X (b) | X (c) | TMS 602 Art.2.1 C | 1705.4 | ☐ | See table footnotes |
| **B3. Prior to grouting, verify that the following are in compliance:** | | | | | | |
| **a.** Grout space | | X | TMS 602 Art. 3.2 D, 3.2 F | 1705.4 | ☒ | 04 2000 |
| **b.** Grade, type and size of reinforcement and anchor bolts. | | X | TMS 402 Sec 6.1 / TMS 602 Art. 2.4, 3.4 | 1705.4 | ☒ | 04 2000 |
| **c.** Placement of reinforcement. | | X | TMS 402 Sec 6.1, 6.2.1, 6.2.6, 6.2.7 / TMS 602 Art. 3.2 E, 3.4, 3.6 A | 1705.4 | ☒ | 04 2000 |
| **d.** Proportions of site prepared grout. | | X | TMS 602 Art 2.6 B, 2.4 G1.b | 1705.4 | ☒ | 04 2000, 04 0511 |
| **e.** Construction or mortar joints | | X | TMS 602 Art. 3.3 B | 1705.4 | ☒ | 04 2000 |
| **B4. During Construction verify:** | | | | | | |
| **a.** Size and location of structural elements | | X | TMS 602 Art. 3.3 F | 1705.4 | ☒ | 04 2000 |
| **b.** Type, size, & location of anchors, including other details of anchorage of masonry to structural members, frames | | X | TMS 402 Sec 1.2.1e, 6.1.4.3, 6.2.1; 1.16.4.3, 1.17.1 | 1705.4 | ☒ | 04 2000 |
| **c.** Welding of reinforcement | X | | TMS 402 Sec. 2.1.7.7.2, 3.3.3.4(c); 8.3.3.4(b) | 1705.4 | ☐ | |
| **d.** Preparation, construction, protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90° F) | | X | TMS 602 Art. 1.8 C, 1.8 D | 1705.4 | ☒ | 04 2000 |
| **e.** Application and measurement of prestressing force | X | | TMS 602 Art. 3.6 B | 1705.4 | ☐ | |

| 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 (the default spec sections listed may need to be modified) |
|---|---|---|---|---|---|---|
| **f.** Placement of grout and prestressing grout for bonded tendons is in compliance | X | | TMS 602 Art. 3.5, 3.6 C | 1705.4 | ☐ | |
| **g.** Placement of AAC masonry units and construction of thin-bed mortar joints | X(b) | X (c) | TMS 602 Art. 3.3 B.9, 3.3 F.1.b | 1705.4 | ☐ | See table footnotes |
| **h.** Installation of post-installed anchors according to manufacturer's printed installation instructions. Verify anchor dimensions, adhesive identification and exp. Date, hole dimensions, edge distances, embedment depth, tightening torque, base material temperature | X(d) | X(e) | | | ☐ | See table footnotes |
| **B5.** Observe preparation of grout specimens, mortar specimens, and/or prisms | | X | TMS 602 Art. 1.4B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4B.3, 1.4 B.4 | | ☐ | |
| **Footnotes:** | | | | | | |
| (a) Frequency refers to the frequency of special inspections, which may be continuous during the task listed or periodic during the listed task, as defined in the table | | | | | | |
| (b) Required for the first 5000 sq. ft. of AAC masonry | | | | | | |
| (c) Required after the first 5000 sq. ft. of AAC masonry | | | | | | |
| (d) Required for the first 10% of each different type of anchor and/or installer | | | | | | |
| (e) Required for the remaining 90% of each different type of anchor and/or installer | | | | | | |
| **Level C Quality Assurance of Masonry** (TMS 402-13/ACI 530-13/ASCE 5-13 Table 3.1.3) | | | | | | |
| **Minimum Tests:** | | | | | | |
| **a.** Verification of f ' m and f ' aac in accordance with Article 1.4 B prior to construction and for every 5,000 sq. ft. during construction | | X | TMS 402 Table 3.1.3 | 1705.4 | ☐ | |
| **b.** Verification of proportions of materials in premixed or preblended mortar, prestressing grout and grout other than self-consolidating grout, as delivered to the site | | X | TMS 402 Table 3.1.3 | 1705.4 | ☐ | |
| **c.** Verification of Slump flow and VSI as delivered to the site in accordance with Article 1.5B.1.b.3 for self-consolidating grout | | X | TMS 402 Table 3.1.3 | 1705.4 | ☐ | |
| **C1.** Verify compliance with the approved submittals | | X | TMS 602 Art. 1.5 | 1705.4 | ☐ | |
| **C2. Verify that the following are in compliance:** | | | | | | |
| **a.** Proportions of site-prepared mortar, grout and prestressing tendons and anchorages | | X | TMS 602 Art 2.1, 2.6 A, 2.6 B, 2.6 C, 2.4 G.1.b | 1705.4 | ☐ | |
| **b.** Grade, type, and size of reinforcement and anchor bolts, prestressing tendons and anchorages | | X | TMS 402 Sect. 6.1 / TMS 602 Art. 2.4, 3.4 | 1705.4 | ☐ | |
| **c.** Placement of masonry units and construction of mortar joints | | X | TMS 602 Art 3.3 B | 1705.4 | ☐ | |
| **d.** Placement of reinforcement, connectors, prestressing tendons and anchorages | X | | TMS 402 Sec. 6.1, 6.2.1, 6.2.6, 6.2.7 / TMS 602 Art 3.2 E, 3.4, 3.6 A | 1705.4 | ☐ | |
| **e.** Grout space prior to grouting | X | | TMS 602 Art. 3.2 D, 3.2 F | 1705.4 | ☐ | |

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|---|---|---|---|---|---|---|
| **f.** Placement of grout and prestressing grout for bonded tendons | X | | TMS 602 Art. 3.5, 3.6 C | 1705.4 | ☐ | |
| **g.** Size and location of structural elements | | X | TMS 602 Art. 3.3 F | 1705.4 | ☐ | |
| **h.** Types, size, and location of anchors including other details of anchorage of masonry to structural members, frames or other construction | X | | TMS 402 Sec. 1.2.1(e), 6.1.4.3, 6.2.1 | 1705.4 | ☐ | |
| **i.** Welding of reinforcement | X | | TMS 402 Sec. 8.1.6.7.2, 9.3.3.4 (c), 11.3.3.4(b) | 1705.4 | ☐ | |
| **j.** Preparation, construction and protection of masonry during cold weather (temperature below 40 F or hot weather (temperature above 90°F) | | X | TMS 602 Art. 1.8 C, 1.8 D | 1705.4 | ☐ | |
| **k.** Application and measurement of prestressing force | X | | TMS 602 Art. 3.6 B | 1705.4 | ☐ | |
| **l.** Placement of AAC masonry units and construction of thin-bed mortar joints | X | | TMS 602 Art. 3.3 B.9, 3.3 F.1.b | 1705.4 | ☐ | |
| **m.** Properties of thin-bed mortar for AAC masonry | X | | TMS 602 Art. 2.1 C.1 | 1705.4 | ☐ | |
| **n.** Installation of post-installed anchors according to manufacturer's printed installation instructions. Verify anchor dimensions, adhesive identification and exp. Date, hole dimensions, edge distances, embedment depth, tightening torque, base material temperature | X(b) | X(c) | | | ☐ | |
| **C3.** Observe preparation of grout specimens. Mortar specimens and/or prisms | X | | TMS 602 Art. 1.4B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B4 | 1705.4 | ☐ | |
| **D.** Vertical Masonry Foundation Elements | | X | | 1705.4.2, 1705.4 | ☐ | |
| **Footnotes:** | | | | | | |
| (a) Frequency refers to the frequency of special inspections, which may be continuous during the task listed or periodic during the listed task, as defined in the table | | | | | | |
| (b) Required for the first 10% of each different type of anchor and/or installer | | | | | | |
| (c) Required for the remaining 90% of each different type of anchor and/or installer | | | | | | |
| **G. WOOD CONSTRUCTION** | | | | | | |
| **1.** Inspect high-load diaphragms for grade/thickness of sheathing, nominal size of members, fastener size, number and spacing | | X | Construction Documents | 1705.5.1 2306.2 | ☐ | 06 1000 & 06 1753 |
| **2.** Metal-plate-connected wood trusses spanning 60 feet or greater: temporary installation restraint / bracing and permanent individual truss member restraint / bracing | | X | Applicable truss submittal package | 1705.5.2 | ☐ | |
| **H. SOILS** | | | | | | |
| **1.** Verify materials below shallow foundations are adequate to achieve the design bearing capacity | - | X | Geotech Report, Contract Documents | Table 1705.6 | ☒ | 31 2323 |

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|---|---|---|---|---|---|---|
| **2.** Verify excavations are extended to proper depth and have reached proper material | - | X | Geotech Report, Contract Documents | Table 1705.6 | ☒ | 31 2323 |
| **3.** Perform classification and testing of compacted fill materials | - | X | Geotech Report, Contract Documents | Table 1705.6 | ☒ | 31 2323 |
| **4.** Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill | X | - | Geotech Report, Contract Documents | Table 1705.6 | ☒ | 31 2323 |
| **5.** Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly | - | X | Geotech Report, Contract Documents | Table 1705.6 | ☒ | 31 2323 |
| **6.** During fill placement inspector shall verify that proper materials and procedures are used per geo-report | X | | Geotech Report, Contract Documents | 1705.6 | ☒ | 31 2323 |
| **I. DRIVEN DEEP FOUNDATIONS** | | | | | | |
| **1.** Verify element materials, sizes and lengths comply w/ the requirements | X | - | Geotech Report, Contract Documents | Table 1705.7 | ☐ | |
| **2.** Determine capacities of test elements and conduct additional load tests, as require. | X | - | Geotech Report, Contract Documents | Table 1705.7 | ☐ | |
| **3.** Inspect driving operations and maintain complete and accurate records for each element | X | - | Geotech Report, Contract Documents | Table 1705.7 | ☐ | |
| **4.** Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element | X | - | Geotech Report, Contract Documents | Table 1705.7 | ☐ | |
| **5.** For steel elements, perform additional inspections in accordance with Code Section 1705.2 | - | - | Geotech Report, Contract Documents | Table 1705.7 1705.2 | ☐ | |
| **6.** For concrete elements and concrete-filled elements, perform tests and additional special inspections in accordance w/ Code Section 1705.3 | - | - | Geotech Report, Contract Documents | Table 1705.7 1705.3 | ☐ | |
| **7.** For specialty elements, perform additional inspections as determined by the RDP in responsible charge | - | - | Geotech Report, Contract Documents | Table 1705.7 | ☐ | |
| **J. CAST-IN-PLACE DEEP FOUNDATIONS** | | | | | | |
| **1.** Inspect drilling operations and maintain complete and accurate records for each element. | X | - | Geotech Report, Contract Documents | Table 1705.8 | ☐ | |
| **2.** Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes. | X | - | Geotech Report, Contract Documents | Table 1705.8 | ☐ | |

| 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 (the default spec sections listed may need to be modified) |
|---|---|---|---|---|---|---|
| **3.** For concrete elements, perform tests and additional special inspections in accordance with Code Section 1705.3. See Special Inspections Concrete Construction. | - | - | Geotech Report, Contract Documents | Table 1705.8, 1705.3 | ☐ | |
| **K. HELICAL PILE FOUNDATIONS** | | | | | | |
| **1.** Record installation equipment used, pile dimensions, tip elevations, final depth, final installation torque and other installation data as required by the RDP. | X | | Geotech Report, Contract Documents | 1705.9 | ☐ | |
| **L. FABRICATED ITEMS** | | | | | | |
| **1.** The RDP shall identify any structural, load-bearing or lateral load-resisting members or assemblies that are specified to be fabricated off site i.e. in a fabricator's shop. Special inspections shall be required for these items unless:<br>**a.** The fabricator maintains approved detailed fabrication and quality control procedures that provide conformance to the approved construction documents & IBC 2018 | | | | 1704.2.5<br>1704.2.5.1<br>1705.10 | ☐ | Structural Steel<br>Steel Joists, Girders<br>Precast Concrete<br>Prestressed Concrete<br>Wood Construction (trusses, walls, floors, roof assemblies) |
| **b.** The fabricator is registered and approved | | | | 1704.2.5.1 | ☐ | Cold-formed steel trusses |
| **M. WIND-FORCE-RESISTANT ITEMS** | | | | | | |
| **1.** Structural Wood | X | X | | 1705.11.1 | ☐ | |
| **2.** Cold Formed Steel Lightweight Construction | | X | | 1705.11.2 | ☐ | |
| **3.** Components: Roof covering, roof deck, and roof framing connections | | X | | 1705.11.3 (1) | ☒ | |
| **4.** Components: Exterior wall covering and wall connections to roof and floor diaphragms and framing | | X | | 1705.11.3 (2) | ☒ | |
| **N. TESTING FOR SEISMIC RESISTANCE** (ASCE 341-16 and ASCE 7-16) | | | | | | |
| **1.** Structural Steel | | | AISC 341 | 1705.12.1.1<br>1705.13.1.1 | ☐ | 05 1200<br>05 1213 |
| **2.** Structural Steel Elements | | | AISC 341 | 1705.12.1.2<br>1705.13.1.2 | ☐ | 05 1200, 05 1213 |
| **3.** Structural Wood gluing and fastening | | X | | 1705.12.2 | ☐ | 06 1000, 06 1753<br>06 1800, 06 1733 |
| **4.** Cold Formed Steel Lightweight Construction welding and fastening | | X | | 1705.12.3 | ☐ | 05 4000<br>05 4400 |
| **5.** Designated Seismic Systems | | | ASCE 7: 13.2.2 | 1705.12.4 | ☐ | |
| **6.** Architectural Components: (seismic) | | | | | | |
| **a.** Exterior cladding, interior or exterior nonbearing walls and int. and ext. veneer 30 ft. or less above grade or walking surface | | X | | 1705.12.5 | ☐ | |
| **b.** Exterior cladding or int. or ext. veneer weighing 5 psf or less | | X | | 1705.12.5 | ☐ | |

| 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 (the default spec sections listed may need to be modified) |
|---|---|---|---|---|---|---|
| **c.** Interior nonbearing walls weighing 15 psf or less | | X | | 1705.12.5 | ☐ | |
| **d.** Access floors | | X | | 1705.12.5.1 | ☐ | 09 6900 |
| **7.** Plumbing, Mechanical and Electrical Components: (seismic) | | | | | | |
| **a.** Electric equipment anchorage for emergency and standby power systems | | X | | 1705.12.6 (1) | ☐ | |
| **b.** Other electric equipment anchorage | | X | | 1705.12.6 (2) | ☐ | |
| **c.** Installation and anchorage of piping systems/mechanical units designed to carry hazardous materials | | X | | 1705.12.6 (3) | ☐ | |
| **d.** Installation and anchorage of ductwork designed to carry hazardous material | | X | | 1705.12.6 (4) | ☐ | 23 3100 |
| **e.** Installation and anchorage of vibration isolation systems | | X | | 1705.12.6 (5) | ☐ | |
| **f.** Installation of mechanical and electrical equipment, including ductwork, piping systems and structural supports where automatic fire sprinkler systems are installed. | | X | ASCE/SEI 7: 13.2.3 | 1705.12.6 (6) | ☐ | |
| **8.** Storage Racks (seismic) | | X | | 1705.12.7 | ☐ | 10 5629, 10 5613 |
| **9.** Seismic Isolation Systems | | X | | 1705.12.8 | ☐ | |
| **10.** Cold Formed Steel Special Bolted Moment Frames (seismic) | | X | | 1705.12.9 | ☐ | |
| **O. TESTING FOR SEISMIC RESISTANCE** (ASCE 341-16 and ASCE 7-16) | | | | | | |
| **1.** Structural Steel | | | ASCE 341 | 1705.13.1 | ☐ | |
| **2.** Nonstructural Components | | | ASCE 7: 13.2.1 | 1705.13.2 | ☐ | |
| **3.** Designated Seismic Systems | | | ASCE 7: 13.2.2 | 1705.13.3 | ☐ | |
| **4.** Seismic Isolation Systems | | | ASCE 7: 17.8 | 1705.13.4 | ☐ | |
| **P. SPRAYED FIRE-RESISTANT MATERIALS** (ASTM E605 - 1993(2015) and E736 - 2000(2015) | | | | | | |
| **1.** Physical and visual tests | | | | 1705.14.1 | ☐ | 07 8100 |
| **2.** Structural Member Surface Conditions | | | | 1705.14.2 | ☐ | 07 8100 |
| **3.** Application | | | | 1705.14.3 | ☐ | 07 8100 |
| **4.** Verify thickness of application | | | ASTM E 605 | 1705.14.4 | ☐ | 07 8100 |
| **5.** Verify density of material | | | ASTM E 605 | 1705.14.5 | ☐ | 07 8100 |
| **6.** Verify cohesive/adhesive bond strength of materials | | | ASTM E 736 | 1705.14.6 | ☐ | 07 8100 |
| **7.** Condition of finished application | | | | 1705.14.1 (5) | ☐ | 07 8100 |
| **Q. MASTIC and INTUMESCENT FIRE-RESISTANT COATINGS** (AWCI 12-B 2014) | | | | | | |
| **1.** Verify surface preparation, application, and thickness in accordance with manufacturer's written instructions when applied to structural elements and decks | | X | AWCI 12-B | 1705.15 | ☐ | 07 8123 |
| **R. EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)** (ASTM E2570 -2007 (2014) | | | | | | |
| **1.** Water-resistive barrier coatings must be inspected when installed over a sheathing substrate | | X | ASTM E2570 | 1705.16.1 | ☐ | 07 2400 |
| **S. FIRE-RESISTANT PENETRATION and JOINTS** | | | | | | |

| 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 (the default spec sections listed may need to be modified) |
|---|---|---|---|---|---|---|
| **1.** For high-rise buildings or Risk Category III or IV buildings inspect through-penetrations and membrane penetration firestops | | X | ASTM E2174, ASTM E814 or UL 1479 | 1705.17, 1705.17.1, 714.5.1.2, 714.4.2, 714.4.1.2 | ☒ | 07 8400 |
| **2.** For high-rise buildings or Risk Category III or IV buildings inspect fire-resistant joint systems and perimeter fire barrier systems | | X | ASTM: E119, E2393, E2307, E1966 or UL 2079 | 1705.17 1705.17.2 715.3 715.4 | ☒ | 07 8400 |
| **T. SMOKE CONTROL SYSTEM** | | | | | | |
| **1.** Tested during erection of ductwork and prior to concealment for leakage testing and recording of device location | | X | | 1705.18.1 (1) | ☐ | |
| **2.** Tested prior to occupancy and after sufficient completion of pressure difference testing, flow measurements and detection and control verification | | X | | 1705.18.1 (2) | ☐ | |
| **U. ADDITIONAL SPECIAL INSPECTIONS AND TESTS** | | | | | | |
| **1.** Design Strength of Materials | | | | 1706 | ☐ | |
| **2.** Alternative Test Procedures | | | | 1707 | ☐ | |
| **3.** In-Situ Load Tests | | | | 1708 | ☐ | |
| **4.** Preconstruction Load Tests | | | | 1709 | ☐ | |
| **5.** Structural Observations | | | | 1704.6, 1704.6.1 1704.6.2 | ☐ | |
| **V. ALTERNATE MATERIALS AND SYSTEMS / SPECIAL CASES** | | | | | | |
| **1.** Construction materials and systems that are alternatives to materials and systems prescribed by the IBC | | | | 1705.1.1 | ☐ | |
| **2.** Unusual design applications of materials described by the IBC | | | | 1705.1.1 | ☐ | |
| **3.** Materials and systems required to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained in code or in standards referenced by the IBC | | | | 1705.1.1 | ☐ | |

# Contractor’s Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated in the Quality Assurance Plan must submit a Statement of Responsibility.

Project: Additions & Alterations to Port Jervis Middle School and New Dugouts

Contractor’s Name:

Address:

License No.:

Description of designated building systems and components included in the Statement of Responsibility:

## Contractor’s Acknowledgment of Special Requirements

I hereby acknowledge that I have received, read, and understand the Quality Assurance Plan and Special Inspection program.

I hereby acknowledge that control will be exercised to obtain conformance with the construction documents approved by the Building Official.

Signature Date

## Contractor’s Provisions for Quality Control

Procedures for exercising control within the contractor’s organization, the method and frequency of reporting and the distribution of reports is attached to this Statement.

Identification and qualifications of the person(s) exercising such control and their position(s) in the organization are attached to this Statement.

# Fabricator’s Certificate of Compliance

Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2.5.1 of the International Building Code must submit a *Fabricator’s Certificate of Compliance* at the completion of fabrication.

Project: Alterations to Kuhl ES / Port Jervis High School and New Dugouts

Fabricator’s Name:

Address:

Certification or Approval Agency:

Certification Number:

Date of Last Audit or Approval:

Description of structural members and assemblies that have been fabricated:

I hereby certify that items described above were fabricated in strict accordance with the approved construction documents.

Signature Date

Title

Attach copies of fabricator’s certification or building code evaluation service report and fabricator’s quality control manual.

# Final Report of Special Inspections

Project: *Alterations to Kuhl ES / Port Jervis High School and New Dugouts*

Location: *10 Route 209, Port Jervis, New York 12771*

Owner: *Port Jervis City School District*

Owner's Address: *150 Pike Street*
*Port Jervis, New York 12771*

Architect of Record: *BCA Architects & Engineers*

Structural Engineer of Record: *Mark B. Kimball, P.E.*

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved other than the following:

Comments:

*(Attach continuation sheets if required to complete the description of corrections.)*

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Registered Design Professional

(Type or print name)

Signature Date

***Licensed Professional Seal***

# Final Report of Special Inspections

## Agent's Final Report

Project: *Alterations to Kuhl ES / Port Jervis High School and New Dugouts*

Agent:

Special Inspector:

To the best of my information, knowledge and belief, the Special Inspections or testing required for this project, and designated for this Agent in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved other than the following:

Comments:

*(Attach continuation sheets if required to complete the description of corrections.)*

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Agent of the Special Inspector

(Type or print name)

Signature Date

***Licensed Professional Seal or Certification***

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**BCA Architects & Engineers**
798 Cascadilla Street
Suite C
Ithaca, New York 14850
**Phone (607) 319-4053**
**submittals@thebcgroup.com**

# SUBMITTAL FORM

**Project Name:** Port Jervis City School District - Alterations to MS / HS & New Varisty Baseball / Softball Dugouts / Storage

**BCA Project Number:** 2019-011 Ph2

**Submittal Description:**

**Contractor Project Number:**

**Contractor Submittal Number:**

**Contractor's Name & Address:**

**Email Address:**

**Name & Address of Supplier:**

**Name of Manufacturer:**

**Specification Section:**

**Drawing No. / Detail Reference No.:**

**Deviations:** **None:** _____ **As Listed:**

**Item as Specified:** **Yes:** _____ **No:** _____ **If No, provide information per Specification & Substitution Forms**

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

☐ This item requires Electrical Coordination

☐ This item requires Plumbing/Mechanical Coordination

**Contractor Review and Coordination By:**

**For Architect/Engineer's Use Only:**

**Submittal No.:**

☐ No Exceptions Taken
☐ Reviewed
☐ Exception as Noted
☐ Correspondence Attached
☐ Resubmit
☐ For Construction Accordance to Notations Revise and Resubmit

In accordance with the General Conditions of the Contract for Construction, the Architect is reviewing, approving or taking action upon this submittal for the limted purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of their obligations of the Contract/Work. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component

☐ Electrical Coordination
☐ Plumb'g/Mechanical Coordination
☐ Electrical Coordination Not required.
☐ Plumbing/Mechanical Coordination Not required.

**Date Reviewed:** _____ **By:** _____
BCA Architects & Engineers - MPE Department

**Date Reviewed:** _____ **By:** _____
BCA Architects & Engineers - Architect

**Comments:**

**Copy To:**
☐ Office
☐ Owner
☐ Field
☐ Contractor

**Date Received:**

**Date Returned:**

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Kathy Hochul, Governor

Roberta Reardon, Commissioner

Port Jervis CSD

Scott Duell, Principal
798 Cascadilla Street
Ithaca NY 14850

Schedule Year 2023 through 2024
Date Requested 10/27/2022
PRC# 2022012161

Location Port Jervis CSD
Project ID#
Project Type Alterations to MS/HS & New VS Baseball/Softball Dugouts/Storage 44-18-00-05-0-012-040 44-18-00-05-7-057-001 44-18-00-05-7-058-001 Architect Project No.: 2019-011 PH2

## 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 2023 through June 2024. 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. 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 12226

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Kathy Hochul, Governor

Roberta Reardon, Commissioner

Port Jervis CSD

Scott Duell, Principal
798 Cascadilla Street
Ithaca NY 14850

Schedule Year 2023 through 2024
Date Requested 10/27/2022
PRC# 2022012161

Location Port Jervis CSD
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## 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: $_____

Approximate Starting Date: ____/____/____

Approximate Completion Date: ____/____/____

Contract Type:
- [ ] (01) General Construction
- [ ] (02) Heating/Ventilation
- [ ] (03) Electrical
- [ ] (04) Plumbing
- [ ] (05) Other : _____

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12226

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**SECTION 00 1001**
**PLAN DEPOSIT POLICY**

## PART 1 GENERAL

### 1.01 PLAN DEPOSIT REFUND POLICY

A. Plan deposit refunds shall be made in accordance with the following policy which is guided by General Municipal Law, Article 5-A, Public Contracts:

1. **If a bona fide bid is duly submitted** for a Contract in accordance with the requirements contained in the Plans and Specifications and said copy(s) of the Plans and Specifications is/are returned in good condition within **thirty (30) business days following the award of the Contract or rejection of bids**, the amount of the deposit return shall be as follows:
   a. For the **first set** of Plan and Specifications returned in accordance with Paragraph 1.01.A.1 above, a full reimbursement of said deposit, **less postage and handling**, shall apply;
   b. For any and all **additional sets** of Plans and Specifications returned in accordance with Paragraph 1.01.A.1 above, a reimbursement of the deposit, less the actual cost of reproduction of the Plans and Specifications and less the cost of postage and handling, shall apply.
2. **If a bona fide bid is not duly submitted** for a Contract in accordance with the requirements contained in the Plans and Specifications and said copy(s) of the Plans and Specifications is/are returned in good condition **prior to the bid opening date**, the amount of the deposit return shall be as follows:
   a. For the **first set** of Plans and Specifications returned in accordance with Paragraph 1.01.A.2 above, a full reimbursement of said deposit, **less postage and handling**, shall apply;
   b. For any and all **additional sets** of Plans and Specifications returned in accordance with Paragraph 1.01.A.2 above, a reimbursement of the deposit, less the actual cost of reproduction of the Plans and Specification and less the cost of postage and handling, shall apply.
3. **If a bona fide bid is not duly submitted** for a Contract in accordance with the requirements contained in the Plans and Specifications and said copy(s) of the Plans and Specifications is/are **NOT** returned **prior to the bid opening date**, none of the plan deposit will be returned.

B. Bidders wishing documents mailed to them shall include, in addition to the document deposit, a non-refundable check of $15.00 per set for handling and postage. Checks shall be made payable to Bernier, Carr & Associates.

C. It is important to note that **THE CONTRACT DOCUMENTS (PLANS AND SPECIFICATIONS) REMAIN THE PROPERTY OF THE ARCHITECT'S OFFICE AND MUST BE RETURNED WITHIN THIRTY (30 BUSINESS DAYS FOLLOWING THE AWARD OF THE CONTRACT OR REJECTION OF BIDS.**

## PART 2 - NOT USED

## PART 3 - NOT USED

**END OF SECTION**

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**SECTION 00 2113**
**INFORMATION FOR BIDDERS**

## PART 1 GENERAL

### 1.01 SUBMISSION OF BIDS

A. The Owner reserves the right to consider informal any bid not prepared and submitted in accordance with the provisions of this Information for Bidders and the General Conditions and to waive any informalities in or to reject any or all bids either before or after opening. No bidder may withdraw a bid within forty-five (45) business days after the actual date of the opening thereof.

### 1.02 PREPARATION OF PROPOSAL

A. Bidders shall prepare their bids on the "Form of Proposal" sheets furnished by the Architect and available at the Architect's Office. All blank spaces pertinent to the Contract category proposal must be filled in, in both words and figures, with the unit price for the item or the lump sum for which the proposal is made.

B. All bids together with bid security must be submitted in sealed envelopes bearing on the outside of the envelope the name of the bidder, his address, the name of the project and the branch of work covered by the bid. If forwarded by mail or other form of courier, the sealed envelope containing the proposal, marked as above, must be enclosed in another envelope addressed to the Owner. Each bidder shall assume the risk of any delay in the mail or in handling of mail by employees of the Owner or others.

C. ***IMPORTANT***: In the event that a prospective bidder, after securing drawings and specifications, decides not to present a proposal for the work, it is requested that the Architect be so notified at earliest possible moment prior to the date of receipt of bids. All drawings and specifications shall be returned to the Architect's Office and if returned in good condition within 30 days following the award of the Contract covered by such Plans and Specifications, a partial reimbursement in an amount equal to the full amount of such deposit less the actual cost of reproduction of the Plans and Specifications, and less postage and handling, shall be made.

### 1.03 BID PROPOSALS AND BIDDERS

A. The Owner reserves the right to reject any or all bid proposals and to waive any informalities or defects in such proposals whether before or after the time of opening of bids.

B. Bidders may not withdraw proposals within forty-five (45) days following date of opening of bids.

C. All costs in connection with preparation and submission of bid proposals shall be borne by the bidders.

D. Bidders shall submit promptly upon request of the Owner or Architect documentary evidence as to financial, technical, and practical ability to carry out the work.

### 1.04 QUALIFICATIONS OF BIDDERS

A. The Owner may make such investigation as he deems necessary to determine the ability of the bidder to perform the work. The bidder shall furnish to the Owner all information and data for this purpose as the Owner may request including but not limited to current financial statements and a list of completed projects (within the last three years) with names and addresses of Owners.

B. The Owner reserves the right to reject any bid if the evidence submitted by or investigation of such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.

C. Conditional bids will not be accepted.

**1.05 BID SECURITY**

A. Each bid must be accompanied by certified check of the bidder or by a bid bond prepared on a standard approved form, duly executed by the bidder as principal, and having as surety thereon a surety company authorized to do business within the State of New York.

B. Bid security shall be in an amount not less than 5% of the base bid or not less than 5% of the sum of base bids where such base bids may be considered cumulative. Such checks will be returned to all except the three lowest formal bidders, within three working days after the formal opening of bids & the remaining cash or checks will be returned to the three lowest bidders within 48 hours after the Owner and the accepted bidder have executed a contract. If no contract has been so executed within 45 days after the opening of bids, bid security will be returned upon demand of the bidder at any time thereafter so long as he has not been notified of the acceptance of his bid.

**1.06 LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT**

A. The successful low bidder, upon his failure or refusal to execute and deliver the contract and required bonds and insurance within 15 days after he has received notice of the acceptance of his bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his bid, as specified in Paragraph 1.05.

**1.07 CONDITIONS OF WORK**

A. Each bidder must inform himself fully of the conditions relating to the construction and labor under which the work is now being or will be performed. Failure to do so will not relieve a successful bidder of his obligations to furnish all material and labor necessary to carry out the provisions of the contract documents and to complete the contemplated work for the consideration set forth in his bid.

B. Insofar as possible, the Contractor in the carrying out of his work must employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor.

**1.08 ADDENDA AND INTERPRETATIONS**

A. No interpretations of the plans, specifications or other contract documents will be made to any bidder orally. All requests for such interpretations shall submitted in writing to BCA Architects & Engineers (on the attached RFI Form). To be given consideration a request for interpretation the RFI form must be received at least six (6) days prior to the date fixed for the opening of bids. Any and all interpretations and any supplemental instructions will be issued in the form of written addenda. If issued, the addenda will be sent by UPS or via facsimile, to respective addresses furnished for such purposes, not later than two (2) days prior to the day fixed for opening Bids. Failure of any Bidder to receive any such addenda shall not relieve said Bidder from any obligation under his Bid as submitted. All addenda so issued shall become part of the Contract Documents.

B. Prospective Bidders are cautioned concerning the use of a Post Office Box address as facsimile addenda cannot be sent to Post Office Boxes.

## 1.09 SECURITY FOR FAITHFUL PERFORMANCE

A. Simultaneously with his delivery of the executed contract, the successful bidder must deliver to the Owner three (3) originals of an executed bond in the amount of 100% of the accepted bid as security for the faithful performance of the contract and for the payment of all persons performing labor or furnishing materials in connection therewith, prepared in the standard form of Performance Bond, Labor and Materials Payment Bond, AIA Form A312-2010 and having as surety thereon such surety company or companies as are acceptable to and approved by the Owner, and as are authorized to transact business in New York State. Each Bidder must obtain and submit with his Bid the Statement of Surety's Intent attached to the Bid form, completed and signed by a duly authorized surety company licensed to do business in New York State. This requirement will not apply in the case of contracts for supplies only and involving no labor on the site.

B. All Certificates of Insurance and Surety Bonds shall be delivered to the Architect following award and at least one (1) week before the initial Pre-Construction Meeting in order to provide a timely and proper review of these documents prior to execution of the Contracts.

## 1.10 POWER OF ATTORNEY

A. Attorneys in fact who sign bid bonds or contracts bonds must file with each bond a certified copy of their power of attorney to sign said bonds.

## 1.11 STATE LAWS AND REGULATIONS

A. The Contractor and each and every sub-contractor performing the work at the site of the project to which this contract relates shall comply with the applicable provisions of the "Labor Law," as amended, of the State of New York, and all other applicable laws and regulations governing such activities.

B. Dust Hazards:
   1. If, in the construction of the work covered by the Contract, a harmful dust hazard is created for which appliances or methods for the elimination of the dust have been approved by the Board of Standards and Appeals, such appliances or methods shall be installed and maintained and effectively operated by the Contractor at his expense.
   2. The Contract shall be void and of no effect unless the Contractor complies with the provisions of this subdivision of the Contract and Labor Law Section 222-a.

C. Non-Collusion Certification: Each bidder shall complete the Non-Collusive Bidding Certification attached to the Bid form.

D. Worker's Compensation: This Contract shall be void and of no effect unless the person or corporation making or performing such contract shall secure compensation for the benefit of, and keep insured during the life of such contract, such employees, in compliance with the provision of the Worker's Compensation Law and General Municipal Law Section 108.
   1. Effective September 9, 2007, all out-of-state employers (contractors and sub-contractors) working in New York State will be required to carry full, statutory New York State Workers' Compensation Insurance Policy. New York must be listed in Item 3A on the Information Page of the employer's workers' compensation policy in order to meet this requirement.

E. Lien Law:
   1. The attention of the Contractor is invited to the provisions of the Lien Law of the State of New York, wherein funds received by a contractor for a public improvement are declared to constitute trust funds in the hands of such contractor to be applied first to the payment of certain claims.

F. The November 9, 1997 guidelines set forth by the New York State Department of Labor regarding Certified Payrolls are as follows:

1. "Every contractor and sub-contractor shall submit to the department of jurisdiction within thirty days after issuance of its first payroll, and every thirty days thereafter, a transcript of the original payroll record, as provided by this article, subscribed and affirmed as true under penalties of perjury. The DEPARTMENT OF JURISDICTION shall be required to receive and maintain such payroll records. The original payrolls or transcripts shall be preserved for three years from the completion of the work on the awarded project." Excerpted from "The Fair Contractor"
2. Payroll shall be sent direct to the Owner. Bernier, Carr & Associates cannot accept the certified payrolls nor do we require copies of the transmittal to the Owner.

G. This provision is an addition to the existing prevailing wage rate law, Labor Law 220, Section 220-h. It requires that on all public work projects of at least $250,000.00, all laborers, workers and mechanics working on the site, be certified as having successfully completed the OSHA 10-hour construction safety and health course. It further requires that the advertised bids and contracts for every public work contract of at least $250,000.00, contain a provision of this requirement.

**1.12 FEDERAL REGULATIONS**

A. Each Contractor and every sub-contractor performing work (including but not limited to repair, renovation, reconstruction, and painting) that will disturb lead-based paint existing within the project that house children under the age of six (6) shall comply with US EPA 40 CFR 745.80 Subpart E (also known a Lead Renovation, Repair and Painting Rule) effective April 22, 2010. The contractor (firm) and the individuals completing the work shall be certified in accordance with the US EPA requirements and shall provide copies of such certification to the Owner prior to the commencement of all work.

**1.13 OBLIGATION OF BIDDER**

A. At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the drawings and contract documents including all Addenda. The failure or omission of any bidder to receive or examine any form, instrument, or document shall in no way relieve any bidder from any obligation in respect to his bid.

**1.14 EXEMPTION FROM SALES AND COMPENSATING USE TAXES**

A. The Owner is exempt from payment of sales and compensation taxes of the State of New York and of cities, counties and other sub-divisions of the State, of materials sold to it pursuant to the provisions of this contract. These taxes are not to be included in bids.

B. Contractor's purchases of tangible personal property which do not become an integral component part of the exempt organization's real property and are consumed by the Contractor as well as purchases of taxable services, are subject to tax.

**1.15 TIME OF COMPLETION**

A. Bidders are advised that time of completion is of the essence and shall be taken into account, by the Bidders, in the preparation of the proposals.

B. See Specification Section 01 1100 Milestone Construction Schedule for completion date.

C. Refer to Paragraph 8.3 and 8.4 of the General Conditions of Contract for Construction for information concerning damages for stretch out and delay.

**1.16 POST BID INFORMATION**

A. Within 96 hours of the Bid Opening the apparent low bidder shall furnish in writing, the following information to the Architect and Construction Manager:
1. Statement that project can be completed within established time.
2. Preliminary progress schedule showing dates for major elements of construction and dates by which major sub-contracts will be awarded.
3. List of proposed major sub-contractors.
4. AIA - Contractor Qualification Statement.

5. Financial Statement.
6. List of References.

**1.17 APPROVAL OF SUB-CONTRACTORS**

A. Requests for approval of major sub-contractors, and other sub-contractors as may be designated by the Architect , shall include a written statement by the proposed sub-contractor that delivery and installation of materials and equipment can and will be performed in accordance with the approved progress schedule.

B. After bid opening, if the Architect, Construction Manager or Owner require the identity of certain Subcontractors, Suppliers or other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted, the apparent Successful Bidder, and any other Bidder so requested, shall within seven (7) days after the request submit to the Architect and Construction Manager a list of all such Subcontractors, Suppliers, and other persons or organizations proposed for those portions of the work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification.

C. Subcontractors must be persons or firms that perform work with persons either in their direct employ or over whom they have personal and direct subdivision.

**1.18 EXAMINATION OF SITES**

A. Bidders shall be presumed to have visited the site prior to submission of proposals and to have familiarized themselves with surface and sub-surface conditions, existing structures and any and all conditions that may in any way affect the work. Failure to have so acted shall in no way relieve bidders from any obligations in respect to their bids.

**1.19 EQUIVALENT/ "OR EQUAL" ITEMS**

A. In the Specifications, two or more kinds, types, brands, or manufacturers or materials are regarded as the required standard of quality and are presumed to be equal. The Contractor may select one of these items or, if the Contractor desires to use any kind, type, brand, or manufacturer or material other than those named in the specifications, they shall indicate in writing, and prior to award of contract, what kind, type, brand, or manufacturer is included in the base bid for the specified item.

**1.20 HAZARDOUS WASTES**

A. It shall be the responsibility of all Contractors and subcontractors to strictly adhere to all Federal, State and Local Regulations pertaining to the use, transportation and disposal of hazardous wastes. These are to include, but not be limited to, the following:
   1. Asbestos-containing materials
   2. Contamination of the atmosphere
   3. Contamination of soil surface or subsurface
   4. Contamination of water or water courses
   5. Contamination of objects or any other intangible matter

B. At the time of project close-out, each Contractor will be required to submit a post-construction certification that they have complied with the requirements as outlined.

**1.21 HAZARDOUS MATERIALS**

A. It shall be the responsibility of all contractors and subcontractors to furnish materials free of hazardous materials including but not limited to lead, asbestos, PCBs, and any and all material deemed hazardous by the EPA.

## 1.22 AWARD OF CONTRACT

A. The Owner reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the work and to negotiate contract terms with the Successful Bidder, and the right to disregard all non-conforming, non-responsive, unbalanced, or conditional Bids. Also, the Owner reserves the right to reject the Bid of any Bidder if the Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the bid is not responsive, or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the Owner. Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

B. In evaluating Bids, the Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such supplier alternatives, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

C. The Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the General Conditions of Contract for Construction. The Owner may also consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment to be submitted prior to the Notice of Award.

D. The Owner may conduct such investigations as the Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, and other personal and organizations to perform and furnish the work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

## 1.23 BID REQUIREMENTS AND CONSIDERATIONS

A. If the Bid is made by a corporation, the official corporation name shall be given, and the Bid shall be signed by an authorized officer of the corporation, and the corporate seal affixed. If the Bid is made by a partnership, the official name as it appears on the Assumed Name Certificate shall be given and the Bid shall be signed by a general partner. If the Bid is made by a sole proprietorship, the Bid shall be signed by the individual Owner.

B. All attachments, certifications or acknowledgments attached to the Bid shall be executed in the same manner as the Bid.

C. Where noted in the Bid, Bidders must submit a separate price for all materials and supplies required for the construction of the project, and a separate price, exclusive of materials and supplies, for all work and labor required for the construction of the Project. In such cases, Bidders must also submit a total Bid for the entire Project which is computed by adding together the Bid for materials and supplies and the Bid for work and labor.

## 1.24 MINIMUM WAGE RATE SCHEDULE

A. Wage Rates: In accordance with Sections 220, Sub-division 3, and 220-D of the New York State Labor Law, there shall be paid each employee engaged in work on the project under this contract in the trades or occupations, not less than the prevailing rate set for the trade or occupation in which he is engaged.

B. In the event that the Contractor wishes to employ occupations other than that listed in these specifications, he shall request the establishment of a rate for that occupation and they shall pay the rate so established. This payment shall be retroactive if applicable.

C. Wage Rate Redetermination: New Wage Rates may be re-determined during the course of work under this contract by the New York State Department of Labor; Contractors shall use the re-determined Wage Rates when applicable and shall compensate for this increase in their bid proposal. The contract will not be changed nor will the Owner pay for any Wage Rate increase after the bid proposals have been submitted. 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.state.ny.us. Updated PDF copies of your schedule can be accessed by entering the assigned PRC# at http://wpp.labor.state.ny.us/wpp/showFindProject.do?method=showIt.

**PART 2 - NOT USED**

**PART 3 - NOT USED**

**END OF SECTION**

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**Port Jervis City School District**

Alterations to MS/HS & New Varsity Baseball/Softball Dugouts/Storage
Project No. 2019-011 Ph2

## REQUEST FOR INFORMATION

Submit to BERNIER, CARR & ASSOCIATES, ENGINEERS, ARCHITECTS AND LAND SURVEYORS, P.C.
Address: 798 Cascadilla Street, Suite C, Ithaca, NY 14850

Attention (Project Manager): BarbaraJean Ligi Email: BLigi@thebcgroup.com

Drawing Reference: _____ Detail Reference: _____

Date: _____ Request No.: _____

**Description of RFI**

Contractor: _____

Name: _____ Email: _____
***(required)***

Phone: _____ Fax: _____

**Response**:

Originated By: Response By:

Signed: _____ Signed: _____
Contractor Architect/Engineer or Field Representative

Date: _____ Date: _____

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**SECTION 01 0000**
**GENERAL REQUIREMENTS**

## PART 1 GENERAL

### 1.01 WORK TO BE PERFORMED

A. Work shown on the Contract Drawings, described in the Specifications, or as required to provide a proper and functionally complete Project all in accordance with the Contract Documents, including any and all addenda.

### 1.02 WORK BY OTHERS

A. The Owner is occupying the site of the Work and reserves the right to let other Contractors for Work on the premises should the need arise.

### 1.03 OWNER OCCUPANCY

A. The building site and the building, whether the Work of the Contractor is partially or fully completed, are the properties of the Owner.

B. The Owner will occupy the site and the building during the period the Work is to be completed. All activities in and around the building shall be strictly coordinated by the Architect. In all cases, the Owner's requirements will take precedence.

C. The requirements of Section 155 of the Regulations of the New York State Commissioner of Education apply to this Project. Refer to “NYSED UNIFORM SAFETY STANDARDS”. See Section 01 3529.10 Life Safety Requirements During School Construction for additional information.

### 1.04 SUBMITTALS

A. Shop Drawing submittals are required for all items specifically required by the Contract Documents; all items indicated on the Contract Drawings not specifically specified and any and all other materials and equipment installed in the Project as requested by the Architect/Engineer.

### 1.05 CORRELATION, INTERPRETATION, AND INTENT OF CONTRACT DOCUMENTS

A. In resolving conflicts and discrepancies, the Documents shall be given precedence in the following order: Agreement, Modifications, Addenda, Special Conditions, Instruction to Bidders, Supplementary Conditions, General Conditions, Specifications, and Drawings. However, the documents are complimentary, and what is required by one shall be as binding as if required by all. Refer to the General Condtions A232 Paragraph 1.2 for more detail.

B. In the case of conflict or discrepancies between Drawings and Divisions 2 thru 49 of the Specifications or within or among the Contract Documents and not clarified by Addendum, the Architect will determine which takes precedence.

C. In case of discrepancy in regard to the Contract Drawings, the more stringent requirement or the detailed drawing shall take precedence over a less detailed drawing.

### 1.06 PROJECT MANAGEMENT SOFTWARE

A. BCA Architects & Engineers use Newforma Project Center as their construction management software to control and streamline project tasks such as construction RFI’s, proposal requests, submittals, transmittals, and other related project collaboration. Each Prime Contractor is required to interface with this software.

B. BCA’s Contract Administration allows the Contractor (Newforma Team Member) to send RFI’s, submittals and change order requests electronically. This process saves time, money and allows the Contractor to view the history of all items.

C. Contractors will be given instructions on how to utilize Newforma Project Center upon execution of Agreements.

D. A Contractor (Newforma Team Member) who has worked with BCA and has previously been issued a Newforma password can re-use that password for all projects. If a Newforma Team Member has forgotten their password, they can request a password be re-sent to them.

E. When a new Contractor contact is added to the Newforma Project Team (by BCA Contract Administration) for a specific project, the Contractor will receive an email informing them that they have been added to the project. The email will provide a username and temporary password. Once this information is received, the Contractor (Newforma Team Member) should follow the link within the email to the "Info Exchange" log-in screen. It is recommended that the Newforma Team Member save this link for future use. Once the username and password are inserted, the Newforma Team Member will be prompted to create a permanent password. After the new password is created, the Newforma Team Member will be directed to the Info Exchange home page. From this page, the Newforma Team Member will select the "My Projects" option in the upper left corner of the page. From this page the Newforma Team Member will select the project that they are involved in. This will lead to the project site screen. Along the left-hand side are a series of options available to the Newforma Team Member.

F. File transfers are used to send and receive large files without using email. Items such as addenda, JC (job change) drawings, meeting minutes, and other project related items may be posted at this location for the Newforma Team Member's use. Some files may be posted for a limited period of time; therefore, Newforma Team Members should download and store files on their own servers.

G. At any time, should a Newforma Team Member have a question regarding Newforma's Info Exchange, they can contact BCA's Document Control Manager, Kristan Peck at (315) 782-8130, ext. 226.

**1.07 ELECTRONIC DOCUMENTS**

A. When requested Architect will develop digital construction files for use by the General Contractor, Mechanical Contractor, Plumbing Contractor, and Electrical Contractor for their use in the development of submittals and shop drawings. The General Contractor, Mechanical Contractor, Plumbing Contractor, and Electrical Contractor will be provided Electronic Drawings in AutoCAD format.

1. Data contained on these electronic files is part of BCA's instruments of service and shall not be used by the Contractor or anyone else receiving this data through or from the Contractor for any purpose other than as a convenience in the preparation of shop drawing submittals for the referenced project. Any other use or reuse by the Contractor or by others will be at your sole risk and without liability or legal exposure to BCA. The Contractor(s) agree to make no claim and hereby waive, to the fullest extent permitted by law, any claim or cause of action of any nature against BCA, its officers, directors, employees, agents or sub consultants which may arise out of or in any way connected with your use of the electronic files.
2. The Electronic files (AutoCAD) format will be released to the General Contractor pending the General Contractor, Mechanical Contractor, Plumbing Contractor, and Electrical Contractor's acceptance of the Architect's CAD File Release Agreement.
3. If sub-contractor(s) will utilize the Electronic files as outlined above, the Contractors' subcontractor shall also be required to accept the Architect's CAD File Release Agreement.
4. The fee for the release Architect's electronic media is $300.00.
5. Under no circumstances shall delivery of the electronic files for use by the Contractor be deemed a sale by BCA. BCA makes no representation or warranty, either express or implied, of merchantability and fitness for any particular purpose. In no event shall BCA be liable for any loss of any profit or any consequential or other damages.

## 1.08 CONSTRUCTION AIDS

A. Scaffolding, Hoists, and etc. This phase of the operation is at the option of the Contractor. All construction aids shall meet the requirements of the various laws and regulations governing the building and the building operation.

## 1.09 SECURITY

A. Prime Contractor shall be responsible for his own security in reference to the Work completed, materials and equipment stored on-site and in the building, etc. (refer to the General Conditions).

B. Each and every Construction Worker shall be required to wear a photo-identification badge at all times while at the Project. Construction workers not having the required photo identification shall be removed from the site (refer to Section 01 3553 - Security Procedures for additional requirements).

C. Contractor shall maintain manufacturer's Material Safety Data Sheets (MSDS) at site for all products used in Project. MSDS sheets shall be provided to Owner when requested.

## 1.10 ACCESS TO SITE

A. Access to and egress from site for Contractors' employees, trucks, construction machinery, material deliveries, etc., shall be in accordance with prevailing local or other ordinances, and on existing access roads and drives.

B. Any damage caused to roads, drives, or planted areas by the Contractor or his subcontractor(s) shall be repaired or replaced as required to put them in the same or better condition than at the start of Work.

## 1.11 SPECIAL CONTROLS

A. SMOKING IS PROHIBITED on the Project site, including construction areas, construction staging areas, field offices, and the entire school campus.

B. The Contractor and their subcontractors shall take any and all necessary precautions required by the Owner, directed by the Architect, and governed by any ordinance relative to noise, dust, water, pest, rodent, mosquito, or pollution control.

C. Construction activities and operations shall not produce noise in excess of 60 dba in occupied spaces. If noise levels in occupied spaces exceed 60 dba, the Contractor shall provide acoustical abatement procedures or schedule activities during unoccupied times.

D. The Contractor is responsible to ensure the protection of personnel engaged in operations where exposure to inorganic lead or lead compounds above the action level can reasonably be expected.

E. The Contractor shall be responsible for safety and adhering to OSHA requirements.

F. The Contractor's attention is called to the matter of LITTER. Litter shall be classified as personal disposable items brought to the site by the Contractor, mechanics, or employees. The Contractor shall be responsible for the removal of litter by such means as trash cans, placed at strategic locations, laborers, or other means.

G. Each Contractor shall be responsible for complying with Occupational Safety and Health Administration (OSHA) and U.S. Department of Health and Human Services' Center for Disease Control and Prevention (CDC) on COVID-19 Guidance for safe work practices, use of personal protective equipment (PPE), social distancing, cleaning and sanitizing of the worksite. These protocols shall be incorporated into each Contractor's safety work plan.

1. All construction workers and suppliers are to execute a Health Declaration Form/Questionnaire each day prior to gaining access to one of the construction sites during the COVID-19 crisis.

## 1.12 PROTECTION AGAINST FIRE

A. Fire Watch: While the Contractor is completing building demolition, qualified personnel shall be provided to serve as an on-site fire watch. The sole duty of fire-watch personnel shall be to watch for the occurrence of fire.

B. Cutting and Welding: Operations involving the use of cutting and welding shall be done in accordance with Chapter 33 - Fire Safety During Construction and Demolition, and Chapter 35 - Welding and Other Hot Work, of the Fire Code of New York State.

C. Spontaneous Ignition: Materials susceptible to spontaneous ignition (i.e., oily rags) shall be stored in listed disposal container.

D. During construction, the Contractor shall provide one (1) fire extinguisher per construction work area. The fire extinguisher shall be approved portable type. Extinguisher(s) shall be provided in accordance with NFPA 10 and the Fire Code of New York State.

## 1.13 TRANSPORTATION AND HANDLING

A. The Contractor and his subcontractor(s) shall be responsible for the transportation and handling of all materials from, to, and at the project site. All damages thereto shall be replaced by the responsible party at no additional cost to the Owner.

B. The Contractor is advised that under no circumstances shall the Owner's agents take responsibility for receiving any materials or equipment sent to the project site. The Contractor shall make all arrangements to have personnel available to receive all deliveries. The Owner accepts no responsibility for any materials or equipment delivered to the job site.

## 1.14 STORAGE AND PROTECTION

A. Storage of materials shall be on the sites and location of same on-site is subject to the approval of the Architect and Owner.

B. All construction materials shall be stored in a safe and secure manner.

C. The General Contractor shall provide fencing around all construction supplies, debris, equipment, and construction staging areas throughout the duration of the Project.

D. Gates to construction material/debris storage areas shall be maintained locked at all times unless an authorized worker is in attendance to prevent unauthorized entry.

E. During exterior reconstruction and new construction, the Contractor shall provide overhead protection for any and all existing entry/exits, sidewalks, and egress windows or areas directly below the work site.

## 1.15 CLEANING-UP

A. All occupied parts of the building affected by renovation activity shall be cleaned at the end of Contractor's work day. The Contractor shall keep all surfaces as free as practical from the accumulation of construction related dust. All surfaces shall be cleaned of dust prior to occupancy by the Owner.

B. The Contractor shall clean up on a regular basis and upon completion of the Work. He shall remove all debris, construction equipment and leave all areas clean, and finishes as required by the specifications, ready for Owner occupancy.

C. All materials removed during the course of the Work shall become the property of this Contractor and shall be immediately removed from the site. The Owner is to have first refusal of any furnishings and/or equipment slated for removal.

D. All debris resulting from the accomplishment of the Work shall be immediately removed from the site.

E. In all special cases (as coordinated with the Owner and Architect) where a Contractor has access to an occupied space during non-operating hours, the Contractor shall be completely responsible for cleaning the work area upon completion of his day's Work, prior to re-occupancy by the Owner.

F. The General Contractor shall be responsible for proper snow removal on a regular basis within the work and staging areas of the addition throughout the duration of the Project.

**1.16 LEAD BASED PAINT INVESTIGATION**

A. A limited investigation has been made for the presence of lead based paints within areas impacted by the Project. If available, the Contract Documents shall contain the test results.

B. Neither the Owner nor the Architect represent that test results if included in the Contract Documents indicate the conditions that will be encountered in performing the Work. They represent only that the test results indicate conditions encountered at the particular location of the testing. The Contractor shall assume all risk and responsibility for any deductions and conclusions which may be made from these test results.

C. The Owner and Architect disclaim responsibility for any opinions, conclusions, interpretations or deductions that may be expressed or implied in any of the information made available. It is expressly understood that the making of deductions, interpretations, and conclusions from all the accessible factual information is solely the Contractor's responsibility.

D. The Owner may conduct additional investigations as the Work progresses. Additional test results from such investigations will be made available to the Contractor.

**1.17 PROJECT LINES AND GRADES**

A. Architect will develop a digital construction survey worksheet generating construction stakeout coordinates for clearing limit lines, mass grading grid, ditches, building corners, parking lot corners, catch basins, storm manholes, sanitary manholes, sanitary lines, storm lines water lines, etc. The Site Contractor will be provided Electronic Drawings and coordinate lists in AutoCAD format.

1. Data contained on these electronic files is part of BCA’s instruments of service and shall not be used by the Contractor or anyone else receiving this data through or from the Contractor for any purpose other than as a convenience in the preparation of shop drawing submittals for the referenced project. Any other use or reuse by the Contractor or by others will be at your sole risk and without liability or legal exposure to BCA. The Contractor(s) agree to make no claim and hereby waive, to the fullest extent permitted by law, any claim or cause of action of any nature against BCA, its officers, directors, employees, agents or sub consultants which may arise out of or in any way connected with your use of the electronic files.
2. The Electronic files (AutoCAD) format will be released to the Site Contractor pending the the Site Contractor's acceptance of the Architect's CAD File Release Agreement.
3. The fee for the release Architect's electronic media is $300.00.
4. Under no circumstances shall delivery of the electronic files for use by the Contractor be deemed a sale by BCA. BCA makes no representation or warranty, either express or implied, of merchantability and fitness for any particular purpose. In no event shall BCA be liable for any loss of any profit or any consequential or other damages.

B. The Site Contractor will contract the services of a Licensed Land Surveyor to provide the following project stakeout:

1. The field staking and offsetting of 25 percent of the column lines or the exterior corners of the foundation walls.
2. The field staking of the corners of parking lots, roads, athletic fields, and the center of infrastructure structures. Offsetting the staked points will be the responsibility of the Architect and Site Contractor.
3. Setting of two (2) temporary elevation benchmarks that can be utilized during construction.

C. The Site Contractor will carefully coordinate the Construction Stakeout Work so the site is ready and there is a sufficient amount of Work to keep the survey crew working for at least 1 day. The Owner's Representative will be given 3 working days notice when requesting Survey Stakeout Work.

D. Upon completion of the field staking provided by the Owner, the Site Contractor shall be responsible for protection of the survey points. Should it be required that the survey points be re-established due to no fault of the Owner, the cost associated with this Work will be the responsibility of the Contractor requiring the Work to be performed.

E. Refer to Section 01 7000 - Execution Requirements for Contractor's requirements for laying out his Work.

**1.18 RESTRICTED ACCESS**

A. The Contractor is hereby notified that access to the site is limited by existing physical and scheduling constraints.

B. Access to and egress from the site for Contractor's employees, trucks, construction machinery, material deliveries, etc., shall be as coordinated and directed by the Owner's designated representative, who shall dictate all traffic patterns.

C. The Owner will designate existing roadways and drives which will be utilized for construction traffic as well as Contractor's staging areas. It is recognized and contemplated by all parties that these areas may sustain damage due to the construction traffic and the General Contractor will, at the time of completion of the Project, be completely responsible for performing all Remedial and Reconstruction Work required to re-construct the driveways, roadways, temporary access roads, and lawn areas as new, in accordance with the requirements of the Contract Documents.

D. Additionally, it shall be the Contractor's responsibility to coordinate his schedule with that of the Owner. The Owner's functions shall take precedence and the Contractor shall ensure safe and convenient access to the existing building on these occasions, subject to the approval of the Owner and the Architect.

**1.19 TEMPORARY BARRIERS AND BARRICADES**

A. The Contractor shall be responsible for providing temporary barriers and barricades as required and directed by the Owner's designated representative to secure his Work. Barricades to be in place at all times especially when the Contractor is not at the project site. In addition, the General Contractor shall erect barriers for safety and dust control inside and outside the building, as directed by the by the Owner and/or the Architect.

**1.20 CONTRACTORS STAGING**

A. Areas for the Contractor's vehicle parking, storage trailers, staging, and offices shall be coordinated by the Owner.

**1.21 KEY PERSONNEL**

A. The Architect and Site Contractor shall have the right to approve the assignments and presence on the job site of all the Contractor's supervisory personnel, including Superintendent, Site Manager and craft foremen to the Work. Removal or reassignment of any such personnel to other Work shall be subject to the prior approval of the Architect.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 10 00**
**MULTIPLE CONTRACT SUMMARY**

## PART 1 – GENERAL

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

### 1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Project consists of the construction of Alterations to Port Jervis Middle School / High School and Play Fields

1. Project Location:
   i. Port Jervis Middle School / High School (formerly Port Jervis High School / Anna S. Kuhl Elementary School)
   10 Route 209
   Port Jervis, NY 12771

2. Owner:
   i. Port Jervis City School District
   150 Pike Street
   Port Jervis, NY 12771

B. The Contract Documents, dated (10/06/2023) were prepared by:
BCA Architects & Engineers
798 Cascadilla Street
Suite C
Ithaca, NY 14850

C. Construction Manager: Savin Engineers, P.C., 3 Campus Drive, Pleasantville, New York, 10570, has been engaged as Construction Manager for this Project to serve as an advisor to the Owner and to aid in administering the Contract for Construction between the Owner and each Contractor, according to a separate contract between the Owner and Construction Manager.

D. The Work consists of the following:

1. The Work includes alterations to the existing Port Jervis High School / Middle School (formerly Port Jervis High School / Anna S. Kuhl Elementary School) to facilitate the conversion of the Elementary School to a Middle School (interior work). In addition, the existing play fields and courts on the west side of the building complex are being demolished and reconstructed in entirety (site work), including the relocation of existing underground utilities.
   i. “Interior work” shall include any building envelope (roofing, windows, exterior doors, etc.) work ancillary to interior renovations.
   ii. “Site work” includes any necessary utility relocation work by the Electrical Contractor or Plumbing Contractor to facilitate reconstruction work at the play fields.

2. All materials, assemblies, forms and methods of construction and service equipment shall comply with the requirements of the latest edition of the New York State Building Code.

## 1.03 DRAWINGS INCLUDED IN CONTRACT DOCUMENTS

A. Refer to List of Drawings located on Title Sheet of the Drawings.

## 1.04 CONTRACT

A. The owner will award the following Construction Prime Contracts for the Project in order to complete all work as indicated and specified (**confirm contract numbers**):

- **Contract No. 1: General Construction**
- **Contract No. 2: Mechanical Construction**
- **Contract No. 3: Plumbing Construction**
- **Contract No. 4: Electrical Construction**
- **Contract No. 5: Site Construction**
- **Contract No. 7: Food Service**

B. In each case, the Contractors agree to accept the site, as it exists and to remove any encumbrances, which interfere with proper fulfillment of the Work, without change in the Contract Sum.

C. Accommodate the Owner's intention to continue occupancy of the existing building and to conduct normal school operations during the time of construction of the work.

1. Cooperate with the Owner's personnel in maintaining and facilitating access to the school building and its facilities by school personnel, school staff, and the public, while construction is still in progress.
2. Emergency access at driveways and building entrances: Keep driveways and entrances serving the occupied school building clear and available to the Owner, the Owner's employees, and the public, and to emergency vehicles always. Do not obstruct access to these areas or use such areas for parking, construction equipment or storage of materials.
3. Schedule construction operations to minimize conflicts with and interruptions to daily school function. Coordinate necessary interruptions with Owner's personnel.
4. The existing building must always remain operational; therefore, the Contractors are responsible to maintain all systems such as, but not limited to, fire alarm, video surveillance, security, clocks, public address system, electric, gas services, heat, etc.

D. Each Prime Contractor and their subcontractors shall cooperate with separate Contractors for any separate Contracts that the Owner may award. The Contractors are advised that the Owner will award additional contracts for work to be performed concurrent with the work identified in these documents.

## 1.05 MULTIPLE PRIME CONTRACTS

A. The Project will be constructed under a multiple prime-contracting agreement. Prime Contracts are separate contracts between the Owner and separate contractors, representing significant construction activities. Each prime contract is performed concurrently with and closely coordinated with construction activities performed on the Project under other prime contracts. Prime Contracts for this Project include:

- **Contract No. 1: General Construction**
- **Contract No. 2: Mechanical Construction**
- **Contract No. 3: Plumbing Construction**
- **Contract No. 4: Electrical Construction**

- **Contract No. 5: Site Construction**
- **Contract No. 7: Food Service**

B. Contract Documents indicate the work of each prime Contract and related requirements and conditions that have an impact on the project. Related requirements and conditions that are indicated on the Contract Documents include, but are not necessarily limited to, the following:

1. Phasing
2. Existing site conditions
3. Alternates
4. Allowances
5. Cutting and Finish Patching
6. Miscellaneous Steel associated with each prime contract
7. Firestopping
8. Final Cleanup (All Contracts are responsible for their own final cleanup.)

C. Prime Contract Work: Each Prime Contract can be summarized as follows:

1. The **Contract for General Construction (GC)** includes Architectural, Civil and Structural work, plus other construction operations traditionally recognized as General Construction. The GC is responsible for coordinating the other prime contractors and preparing the master construction schedule **for interior work**, utilizing information provided by the other prime contractors. It also includes administrative and coordination responsibilities. Work under this prime Contract includes, but is not limited to, the following specification sections:

**DIVISION 00 & 01 GENERAL REQUIREMENTS**
All Division 00 & 01 specifications and requirements.

| | |
|---|---|
| **DIVISION 02** | **EXISTING CONDITIONS** |
| | All sections. |
| **DIVISION 03** | **CONCRETE** |
| | All sections with respect to interior work. |
| **DIVISION 04** | **MASONRY** |
| | All sections. |
| **DIVISION 05** | **METALS** |
| | All sections with respect to interior work. |
| **DIVISION 06** | **WOOD AND PLASTICS** |
| | All sections. |
| **DIVISION 07** | **THERMAL AND MOISTURE PROTECTION** |
| | All sections. |
| **DIVISION 08** | **OPENINGS** |
| | All sections. |
| **DIVISION 09** | **FINISHES** |
| | All sections. |
| **DIVISION 10** | **SPECIALTIES** |
| | All sections. |
| **DIVISION 11** | **EQUIPMENT** |
| 11 3013 | Residential Appliances |
| **DIVISION 12** | **FURNISHINGS** |
| | All sections. |

2 The **Contract for Mechanical Construction (MC)** includes heating, ventilation, and air conditioning equipment and controls and the temperature control systems. The MC is responsible for coordinating with the other prime contractors and for administrative responsibilities. Work under this prime Contract includes, but is not limited to, the following specification sections:

**DIVISION 00 & 01 GENERAL REQUIREMENTS**
All Division 00 & 01 specifications and requirements.

| | |
|---|---|
| **DIVISION 02** | **EXISTING CONDITIONS** |
| | All sections with respect to Mechanical work. |
| **DIVISION 07** | **THERMAL AND MOISTURE PROTECTION** |
| | All sections with respect to Mechanical work. |
| **DIVISION 11** | **EQUIPMENT** |
| | HVAC installation of equipment provided by other Prime Contractors. |
| **DIVISION 23** | **HEATING, VENTILATING AND AIR CONDITIONING** |
| | All sections. |

3. The **Contract for Plumbing Construction (PC)** includes plumbing equipment, accessories and domestic, hot water and waste piping systems. The PC is responsible for coordinating with the other prime contractors and for administrative responsibilities. Work under this prime Contract includes, but is not limited to, the following specification sections:

**DIVISION 00 & 01 GENERAL REQUIREMENTS**
All Division 00 & 01 specifications and requirements.

| | |
|---|---|
| **DIVISION 02** | **EXISTING CONDITIONS** |
| | All sections with respect to Plumbing work. |
| **DIVISION 07** | **THERMAL AND MOISTURE PROTECTION** |
| | All sections with respect to Plumbing work. |
| **DIVISION 11** | **EQUIPMENT** |
| | Plumbing installation of equipment provided by other Prime Contractors. |
| **DIVISION 22** | **PLUMBING** |
| | All sections. |
| **DIVISION 33** | **UTILITIES** |
| 33 0110.58 | Disinfection of Water Utility Piping Systems |
| 33 1416 | Site Water Utility Distribution Piping |

4. The **Contract for Electrical Construction (EC)** includes electric power distribution, lighting and telecommunication and other low voltage systems. The EC is responsible for coordinating with the other prime contractors and for administrative responsibilities. Work under this prime Contract includes, but is not limited to, the following specification sections:

**DIVISION 00 & 01 GENERAL REQUIREMENTS**
All Division 00 & 01 specifications and requirements.

| | |
|---|---|
| **DIVISION 02** | **EXISTING CONDITIONS** |

| | |
|---|---|
| | All sections with respect to Electrical work. |
| **DIVISION 07** | **THERMAL AND MOISTURE PROTECTION** |
| | All sections with respect to Electrical work. |
| **DIVISION 11** | **EQUIPMENT** |
| | Electrical installation of equipment provided by other Prime Contractors. |
| **DIVISION 26** | **ELECTRICAL** |
| | All sections. |
| **DIVISION 27** | **COMMUNICATIONS** |
| | All sections. |
| **DIVISION 28** | **ELECTRONIC SAFETY AND SECURITY** |
| | All sections. |

5. The **Contract for Site Construction (SC)** includes demolition of existing fields, courts and associated construction on the west side of the building complex and construction of new play fields and courts and associated construction. The SC is responsible for coordinating with the other prime contractors, notably the EC and PC for demolition/relocation of existing utilities and installation of new utilities, and for administrative responsibilities. Work under this prime Contract includes, but is not limited to, the following specification sections:

| | |
|---|---|
| **DIVISION 02** | **EXISTING CONDITIONS** |
| | All sections with respect to Site work. |
| **DIVISION 03** | **CONCRETE** |
| | All sections with respect to Site work. |
| **DIVISION 04** | **MASONRY** |
| | All sections with respect to Site work. |
| **DIVISION 05** | **METALS** |
| | All sections with respect to Site work. |
| **DIVISION 06** | **WOOD, PLASTICS & COMPOSITES** |
| | All sections with respect to Site work. |
| **DIVISION 07** | **THERMAL AND MOISTURE PROTECTION** |
| | All sections with respect to Site work. |
| **DIVISION 08** | **OPENINGS** |
| | All sections with respect to Site work. |
| **DIVISION 09** | **FINISHES** |
| | All sections with respect to Site work. |
| **DIVISION 31** | **EARTHWORK** |
| | All sections. |
| **DIVISION 32** | **EXTERIOR IMPROVEMENTS** |
| | All sections. |
| **DIVISION 33** | **UTILITIES** |
| 33 4000 | Storm Drainage Utilities |

6. The **Contract for Food Service Equipment (FS)** includes providing and installing food service equipment for the new Middle School Cafeteria. The FS is responsible for coordinating with the other prime contractors and for administrative responsibilities. Work under this prime Contract includes, but is not limited to, the following specification sections:

| | |
|---|---|
| **DIVISION 02** | **EXISTING CONDITIONS** |

| | |
|---|---|
| | All sections with respect to Food Service Equipment. |
| **DIVISION 07** | **THERMAL AND MOISTURE PROTECTION** |
| | All sections with respect to Food Service Equipment. |
| **DIVISION 11** | **EQUIPMENT** |
| 11 4000 | Food Service Equipment |

7. Definition of extent of Prime Contract work: The Contract Documents indicate the extent of each prime contract. Except where the Contract Documents contain a more specific description, general names and terminology on the Drawings and in the Specification Sections determine which prime contract includes a specific element of the Project.

8. Local customs 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.

9. If it becomes necessary to refer to the contract documents to determine which prime Contract includes a specific element of required work, begin by referring to the Prime Contracts, themselves; then, if a determination cannot be made from the Prime Contracts, refer, in the following order, to the Supplementary Conditions, this section of the Specifications, followed by the other Division-1 sections and finally with the Drawings and other Sections of the Specifications.

10. If, after referring to the contract documents, it cannot be clearly determined which Prime Contractor will perform a specific item of required work, then that item of work will be included as a part of the prime Contract for General Construction Work (GC).

11. Summary of Reference: Work of the Prime Contracts can be summarized by reference to the Prime Contracts, General Conditions, Supplementary Conditions, and Instructions to Modifications to the Contract Document issued after the initial printing of the Project Manual and referenced by any of these. It is recognized that the work of the Prime Contracts is unavoidably affected or influenced by governing regulations, natural phenomenon, including weather conditions, and other forces outside the contract documents.

## 1.06 MISCELLANEOUS

A. The following additional requirements for the Contractor for **Contract 1 General Construction (GC)** include, but are not limited to, the following:
   1. Temporary site protection and fencing **at staging areas utilized for interior work**. Remove temporary site protection and fencing at conclusion of project and restore grass, asphalt, concrete, and existing fixtures as required and as directed by Owner and CM. Coordinate with the SC and CM for a logical delineation of staging areas for interior and site work. See Specification Section 01 50 00.
   2. All blocking in walls for use by other trades. Other trades shall identify the locations of required blocking.
   3. Blocking where necessary for installation of work by the GC.
   4. Finish patching associated with this Contract, including where other Contractors have performed rough patching in areas scheduled to receive finishes by the GC. Other Contractors are responsible for their own cutting and patching in areas where GC is not responsible for finishes. See also

Subparagraph 17 below.

5. Furnish all waste containers **for interior work** for use by GC/MC/PC/EC/FS. Coordinate with other Contractors regarding their anticipated needs for waste containers. Containers to be located as directed by Owner and CM. Restore grass, asphalt, concrete, and existing fixtures as required and as directed by Owner and CM following removal of last container.
6. Install access panels/doors supplied by other trades.
7. Floor leveling in new construction is the responsibility of this Contract.
8. Fire Protection specialties, including fire extinguishers and cases.
9. Install sleeves, curbs, rails, and other materials provided by other Contracts. Includes providing and installing all necessary wood blocking. Coordinate location of material installation with other Contractors.
10. Provide roof deck penetrations, roof cutting, patching, and flashing as required for installation of rooftop equipment curbs, pipe portals, and rails provided by the MC, or for any necessary vent pipe installation by the PC, or for any necessary pitch pockets at electrical penetrations by the EC. GC is responsible for maintaining existing roof warranties.
11. Protection of work after installation.
12. Firestopping at any existing floor/wall/deck penetrations created by the GC and at all roof deck penetrations.
13. Interior floor, wall, and ceiling expansion joints as per the Contract Documents.
14. Prepare Master Construction Schedule incorporating the other Prime Contract schedules/durations **for interior work** with the General Construction schedule and provide an update to the construction schedule on a monthly/weekly basis for the duration of the project. See Subparagraph 1.07 of this Section.
15. The GC is responsible for furnishing and installation of all architectural casework/millwork/woodwork shown in the Contract Documents, including installation of blocking, and coordination with the other trades for their scope of work.
16. The GC shall excavate for the PC and EC as/if required for removal/installation of sanitary and/or water lines and/or electrical feeds within the building footprint and to 5' beyond the exterior building walls. The GC is responsible for conduit/pipe bedding, backfill, compaction and slab/floor patching as required within the same boundaries.
17. The GC shall provide all required housekeeping pads for equipment provided by the MC/PC/EC/FS in the building interior. Coordinate with other Contractors for pad size requirements.
18. Provide the PC and EC with approved shop drawings for casework to be furnished and installed by the GC. PC shall use these to coordinate rough plumbing and sink installation. EC shall use these to coordinate rough electric and device installation.
19. Each Prime Contractor owns their own cutting and patching (and that of their subcontractors), including penetration of existing walls, floors, and ceilings, unless otherwise noted. (GC is responsible for all roof deck penetrations.) If finishes by the GC are specified in the area of work, each prime contractor owns their own subsurface repair and patching to within tolerances required by the finishes to be installed by the GC, unless otherwise noted. See Subparagraph 4 above and Specification Section 01 7329.

B. The following additional requirements for the Contractor for **Contract 2 Mechanical Construction (MC)** include, but are not limited to, the following:
   1. Removal of all debris generated by this Contract to waste containers provided by the GC.
   2. Supply access panels/doors to be installed in walls, floors or ceilings to GC to install.

3. Provide rooftop equipment curbs, pip pipe portals, and rails to GC for installation. Provide layout of same for GC prior to installation.
4. Provide starters and/or variable frequency drives/speed controllers, if applicable, to EC to install.
5. Protection of work after installation.
6. Mechanical connections to equipment furnished by any other Contract.
7. MC shall take the lead in preparing Coordination Drawings, and coordinate with the PC and EC.
8. Control wiring, regardless of voltage, for HVAC systems.
9. Identify the locations of required blocking for the GC.
10. Firestopping at any existing floor/wall/deck penetrations created by the MC. (GC is responsible for all roof deck penetrations.)
11. Temporarily remove, store and reinstall existing hung ceiling panel assembly as required to access areas of work within plenum. Replace all ceiling panels soiled or damaged in the removal and replacement process.
12. Provide the GC, within 15 days of award, a schedule with line items and various tasks broken down with start dates and duration days and provide the same on a monthly/weekly basis for the duration of the project. See Subparagraph 1.07 of this Section.
13. Where framed openings are not required and piping penetrations are through existing construction, the MC is responsible for his own piping penetrations, including sealing the penetrations per code and industry standard.
14. Each Prime Contractor owns their own cutting and patching (and that of their subcontractors), including penetration of existing walls, floors, and ceilings, unless otherwise noted. (GC is responsible for all roof deck penetrations.) If finishes by the GC are specified in the area of work, each prime contractor owns their own subsurface repair and patching to within tolerances required by the finishes to be installed by the GC, unless otherwise noted. See Specification Section 01 7329.

C. The following additional requirements for the Contractor for **Contract 3 Plumbing Construction (PC)** include, but are not limited to, the following:
1. The PC shall furnish, install, and connect all underground plumbing supply and sanitary lines on the Owner's property (interior work & site work) as required. The PC shall furnish, install, and connect all storm lines inside the building and to 5' beyond the exterior building wall.
2. SC will be responsible for all site underground plumbing supply and sanitary line excavation and backfilling, including bedding and subbase requirements. PC shall remove existing site supply and sanitary piping and provide and install new site supply and sanitary piping in coordination with the SC. Thrust blocks, if required, will be by the SC.
3. Site plumbing work includes the relocation of existing hose connections and bottle fillers at play fields per Contract Documents.
4. Removal of all debris generated by this Contract to waste containers provided by the GC (or by the SC for site plumbing work).
5. Supply access panels/doors to be installed in walls, floors or ceilings to GC to install.
6. Provide starters to EC to install.
7. Protection of work after installation.
8. Plumbing connection to equipment furnished by any other Contract.
9. MC shall take the lead in preparing Coordination Drawings, and coordinate with the PC and EC. PC shall add layers to the drawings as required.
10. Temporary Water: Provide temporary water service as noted in Section 01 50 00 Temporary Facilities and Controls, Subparagraph 3.2.C.
11. Install fixtures waste, vent, gas, water and other items for equipment provided by other Contracts.
12. Identify the locations of required blocking for the GC.

13. Firestopping at any existing floor/wall/deck penetrations created by the PC. (GC is responsible for all roof deck penetrations.)
14. Temporarily remove, store, and reinstall existing hung ceiling panel assembly as required to access areas of work within plenum. Replace all ceiling panels soiled or damaged in the removal and replacement process.
15. Provide the GC, within 15 days of award, a schedule with line items and various tasks **for plumbing interior work** broken down with start dates and duration days and provide the same on a monthly/weekly basis for the duration of the project. See Subparagraph 1.07 of this Section.
16. Provide the SC, within 15 days of award, a schedule with line items and various tasks **for plumbing site utility work** broken down with start dates and duration days and provide the same on a monthly/weekly basis for the duration of the project. See Subparagraph 1.07 of this Section.
17. The PC shall be provided with approved shop drawings for casework to be furnished and installed by the GC and shall use these to coordinate rough plumbing and sink installation. The PC shall also coordinate with the GC for this work.
18. Where framed openings are not required and piping penetrations are through existing construction, the PC is responsible for its own piping penetrations, including sealing the penetrations per code and industry standard.
19. For interior work, each Prime Contractor owns their own cutting and patching (and that of their subcontractors), including penetration of existing walls, floors, and ceilings, unless otherwise noted. (GC is responsible for all roof deck penetrations.) If finishes by the GC are specified in the area of work, each prime contractor owns their own subsurface repair and patching to within tolerances required by the finishes to be installed by the GC, unless otherwise noted. See Specification Section 01 7329.

D. The following additional requirements for the Contractor for **Contract 4 Electrical Construction (EC)** include, but are not limited to, the following:
1. Removal of all debris generated by this Contract to waste containers provided by the GC (or by the SC for site electrical work).
2. Supply access panels/doors to be installed in walls, floors, or ceilings to the GC to install.
3. Install starters and/or variable frequency drives/speed controllers supplied by other trades.
4. Protection of work after installation.
5. Electrical connections to equipment supplied by any other Contract.
6. MC shall take the lead in preparing Coordination Drawings, and coordinate with the PC and EC. EC shall layers to the drawings as required.
7. SC will be responsible for all site underground electrical conduit, electrical pull box, and electrical manhole excavation and backfilling, including bedding and subbase requirements. EC shall remove existing site electrical conduit and provide and provide and install new site electrical conduit, electrical pull boxes, and electrical manholes, in coordination with the SC.
8. Site electrical work includes the demolition of existing and installation of new power feeds for scoreboards and exterior power receptacles, etc. at play fields per Contract Documents
9. The EC is responsible for electrical service work which involves the relocation of existing electrical and communications services from Route 209 to the building complex. This work should be thoroughly prepared for in the late spring and early summer and the switchover should take place as early as possible in July. This work must be carefully coordinated with the Owner and SC and all other Prime Contractors must be fully informed regarding any interruptions in electrical power. Power and communication outages should be designed to be as short as possible. During the power outage, the Owner will operate the building on emergency generator power

and the Owner will assume the cost of fuel for the existing emergency generator. However, if the existing emergency power capacity is not adequate, the EC is responsible to ensure that other Prime Contractors and custodial staff have access to adequate power to perform their work during the shutdown, including, if necessary, the provision of temporary panels, portable power outlet boxes and/or portable generators and fuel as required to power equipment, tools and interior lighting. The EC is also responsible for communication with utilities and service providers as necessary to coordinate the service shutdown and switchover, and the Owner will assist with this communication as needed.

10. EC is responsible for removing and legally disposing of existing PCB containing lighting fixtures, bulbs, and ballasts.
11. Temporary Electric: Provide Temporary Electrical service and lighting for the project as noted in Section 01 50 00 Temporary Facilities and Controls, Subparagraphs 3.2.G, 3.2.H, and 3.2.I.
12. Identify the locations of required blocking for the GC.
13. Provide the GC, within 15 days of award, a schedule with line items and various tasks **for electrical interior work** broken down with start dates and duration days and provide the same on a monthly/weekly basis for the duration of the project. See Subparagraph 1.07 of this Section.
14. Provide the SC, within 15 days of award, a schedule with line items and various tasks **for electrical site utility work** broken down with start dates and duration days and provide the same on a monthly/weekly basis for the duration of the project. See Subparagraph 1.07 of this Section.
15. Firestopping at any existing floor/wall/deck penetrations created by the EC. (GC is responsible for all roof deck penetrations.)
16. Temporarily remove, store and reinstall existing hung ceiling panel assembly as required to access areas of work within plenum. Replace all ceiling panels soiled or damaged in the removal and replacement process.
17. Provide and maintain temporary power receptacles and temporary lighting as required in interior areas of construction for duration of construction work.
18. The EC shall be provided with approved shop drawings for casework to be furnished and installed by the GC and shall use these to coordinate rough electric and device installation. The EC shall also coordinate with the GC for this work.
19. Where framed openings are not required and conduit penetrations are through existing construction, the EC is responsible for its own conduit penetrations, including sealing the penetrations per code and industry standard.
20. For interior work, each Prime Contractor owns their own cutting and patching (and that of their subcontractors), including penetration of existing walls, floors, and ceilings, unless otherwise noted. (GC is responsible for all roof deck penetrations.) If finishes by the GC are specified in the area of work, each prime contractor owns their own subsurface repair and patching to within tolerances required by the finishes to be installed by the GC, unless otherwise noted. See Specification Section 01 7329.

E. The following additional requirements for the Contractor for **Contract 5 Site Construction (SC)** include, but are not limited to, the following:

1. Temporary site protection and fencing **at staging areas utilized for site work**. Temporary and construction fencing at boundaries of site work per CIP plans. Provide and install staging and field office trailer area at north end of site per CIP plans. Remove staging and field office trailer area and all temporary and construction fencing at conclusion of project and restore grass, asphalt, concrete, and existing fixtures as required and as directed by Owner and CM. Coordinate with the GC and CM for a logical delineation of staging areas for interior and site work. See Specification Section 01 50 00.
2. Furnish all waste containers **for site work** for use by SC/PC/EC. Coordinate with other Contractors regarding their anticipated needs for waste containers.

Containers to be located within work or staging area. Restore grass, asphalt, concrete, and existing fixtures as required and as directed by Owner and CM following removal of last container.

3. Dewatering as required at areas of site demolition and excavation.
4. Protection of work after installation.
5. Legal removal and disposal of excess or unsuitable soils.
6. Prepare Master Construction Schedule incorporating the other Prime Contract schedules/durations **for site work** with the Site Construction schedule and provide an update to the construction schedule on a monthly/weekly basis for the duration of the project. See Subparagraph 1.07 of this Section.
7. The SC is responsible for the entire scope of construction of new dugout structures and other exterior structures located in the play fields and courts as shown on the Contract Documents. Coordinate as needed with the EC and PC for their scope of work in these areas.
8. The SC is responsible for the entire scope of storm drainage utilities.
9. The SC shall provide excavation, pipe and conduit bedding, subbase gravel, backfill and compaction for EC and PC to facilitate the removal of existing and installation of new electrical, communication and water supply and sewer utilities and structures as shown in the Contract Documents. The SC shall take the lead in coordinating closely with the EC and PC so that site utility work does not unnecessarily interrupt the progress of site work.
10. The SC shall not utilize power from the building; rather, the SC shall be responsible for his own temporary generators and fuel as needed to power equipment and tools on site.
11. The SC is advised that the Owner will arrange for a separate contract to facilitate the remove of existing play structures on the west side of the existing Anna S. Kuhl Elementary School (future Middle School). These will be relocated to the new Elementary School on Main Street. The Owner will coordinate this work so that it does not negatively impact the progress of site work. Once the play structures are removed, the SC is responsible for the demolition of the existing play surfaces and any remaining play structures that are abandoned for demolition.

F. The following additional requirements for the Contractor for **Contract 7 Food Service Equipment (FS)** include, but are not limited to, the following:

1. Removal of all debris generated by this Contract to waste containers provided by the GC.
2. Supply access panels/doors to be installed in walls, floors or ceilings to the GC to install.
3. Identify the locations of required blocking for the GC.
4. Protection of work after installation.
5. Provide the GC, within 15 days of award, a schedule with line items and various tasks **for food service equipment** broken down with start dates and duration days and provide the same on a monthly/weekly basis for the duration of the project. See Subparagraph 1.07 of this Section.
6. For interior work, each Prime Contractor owns their own cutting and patching (and that of their subcontractors), including penetration of existing walls, floors, and ceilings, unless otherwise noted. (GC is responsible for <u>all</u> roof deck penetrations.) If finishes by the GC are specified in the area of work, each prime contractor owns their own subsurface repair and patching to within tolerances required by the finishes to be installed by the GC, unless otherwise noted. See Specification Section 01 7329.

G. Temporary service shall be provided as follows:

1. Reference Specification Section 01 50 00 – Temporary Facilities and Controls for the following temporary service provisions:
   a. Temporary heat
   b. Temporary sanitary facilities
   c. Temporary water
   d. Temporary electric

2. Snow plowing/shoveling all building areas exposed to weather, inclusive of the staging areas, temporary parking areas and access to the Owner/CM/Architect field office by the **SC**.

3. Project identification and safety signs by **GC** (interior work) and **SC** (site work).

4. Each Contract is responsible for their own temporary offices, storage trailers, including electric hook-up and phone service, if desired. If needed, location must be as directed by Owner and CM.

H. DAILY CLEANING

1. Daily Cleaning: All Prime Contracts are responsible for all debris caused by their Work, including the Work of their subcontractors. A daily clean up and disposal is required by each Prime Contract for the periods during which that Prime Contract, or its sub-contractors, are performing Work on site.
2. Assign at least one person for a daily clean and sweep of the work area(s). Prime Contractor shall allot sufficient manpower and time for this to be completed by the end of each shift. Submit the name of person(s) performing this work to Construction Manager.
3. Construction Manager shall have the authority to give direction to person(s) on the Project Site identified by the Prime Contract as designated for cleanup tasks.
4. Any Prime Contract not providing personnel for Daily Cleaning will be Back Charged for labor provided by others to complete this task.
5. Any Contractor working solely in an area shall be responsible for clean/sweep of that area.
6. Daily cleaning will not mean any one Prime Contract is responsible for assisting another Prime Contract with removing major quantities of debris created by a particular Prime Contract's Work.
7. Daily cleaning will be mandated to remove from the building any debris created by day-to-day activities. Each Prime shall assist in sweeping shared work areas and shared corridors while working on site. Each Prime shall assist in mopping of shared corridors while working on site or as required by the Owner.
8. Prime Contractors shall provide sweeping compound for daily cleaning in their respective interior work areas. Each Prime Contract shall provide enough brooms or other necessary tools, for use by their personnel to adequately fulfill their obligations.
9. Prime Contractors shall provide and maintain garbage cans/refuse containers with liners for each construction area of their respective contracts as directed by the Construction Manager and Prime Contractors shall be responsible for disposing of these materials to a dumpster.
10. Prime Contractors shall provide the necessary equipment/containers (lull/skip-box) to move daily clean/sweep debris from the building to a dumpster daily, for each construction area of their respective contracts.
11. Cleaning shall be deemed a Safety & Health issue, with Prime Contracts being held accountable for fulfilling their contractual obligations.
12. Final Cleaning: At Substantial Completion of each area of construction, each Prime Contract shall wipe/vacuum clean all of their respective installations; Prime Contractors shall mop clean all finish flooring and remove all marks/blemishes to

the finish, for each construction area of their respective contracts. Each area of construction shall be wiped clean of all construction dust and debris prior to turnover to the Owner.

## 1.07 CONSTRUCTION SCHEDULES

A. All work shall be done in accordance with a predetermined detailed Master Construction Schedule (MCS) agreed upon by Owner and Contractors, following review by the Construction Manager and Architect. For interior work, the MC, PC, EC and FS Prime Contractors shall submit a detailed Construction Schedule for their respective scopes of interior work to the GC within 15 days of contract award. For site work, the PC and EC Prime Contractors shall submit a detailed Construction Schedule for the respective scopes of site work to the SC within 15 days of contract award. Schedules shall include all milestone dates per Specification Section 01 11 00 and other significant dates (material delivery, service shutdown, etc.). GC shall combine interior work by the GC, MC, PC, EC, and FS into a Critical Path Method (CPM) schedule within 30 days of award and update monthly until on-site construction commences. Then the GC shall update the schedule weekly for the duration of the project. All primes shall sign off on the final CPM Schedule for interior work. SC shall combine site work by the SC, PC, and EC into a Critical Path Method (CPM) schedule within 30 days of award and update monthly until on-site construction commences. Then the SC shall update the schedule weekly for the duration of the project. All primes shall sign off on the final CPM Schedule for site work.

1. MCS shall be computer generated, in CPM format. The MCS shall be revised monthly prior to on-site work taking place, then on a weekly basis during on-site construction activity. The latest revised MCS shall be submitted each month with the Application for Payment from the GC (for interior work) and SC (for site work).
2. The MCS shall incorporate the project milestone dates per Specification Section 01 11 00 – Milestone Schedule.

B. GC shall coordinate work with the Owner, CM, and other Contractors (and their subcontractors) for interior work. SC shall coordinate work with the Owner, CM, and other Contractors (and their subcontractors) for site work.

C. Locations of trailers, storage areas, parking areas, and staging areas shall be coordinated with the Owner and CM.

D. It will be the responsibility of each Contractor to carefully interface all construction operations until they reach their final completion, so that the Owner's programs and services can be carried on without interruption and a smooth flow of operations by all involved trades will be achieved within the allotted time.

## 1.08 ACCESS TO THE SITE

A. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles always. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

## 1.09 CODES APPLICABLE

A. Construction will be governed by: New York State Uniform Fire Prevention and Building Code, current applicable editions, and their referenced codes and standards, as well as New York State Education Department Part 155 Regulations, Section 155.5.

## 1.10 PREPARATION OF SITE

A. Site drawings indicate existing grade elevations, final grade elevations, and locations of work on the property.

B. The Contractor agrees to accept site as indicated and to remove encumbrances, which interfere with proper fulfillment of his work without change in Contract Sum.

C. All Work as noted inside or outside of Contract Limit Lines shall be performed by Contractor as part of Contract Work.

## 1.11 CONTRACTOR'S USE OF PREMISES

A. Confirm Operations at the Site to Areas and Methods Permitted by:

1. Laws.
2. Ordinances.
3. Permits.
4. Contract Documents.
5. Owner's regulations.

B. General: During the construction period the Contractor's shall have full use of the premises for construction operations. The Contractor's use of the premises is limited only by the Owner's right to perform construction operations with its own forces or to employ separate contractors on portions of the project.

C. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.

D. Do not unreasonably encumber the site with materials or equipment.

E. Do not load structure(s) with weight that will endanger structure.

F. Each Contractor and Subcontractor is responsible for the protection and safekeeping of his materials, products and equipment stored on the premises until his contract is complete and accepted by the Owner.

G. Site Access: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles always. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

H. Move at the Contractor's/Subcontractor's cost any stored materials, products or equipment which interfere with operations of Owner or others.

I. Special Owner Requirements:

1. Partial Owner Occupancy: The Owner reserves the right to occupy and to place and install equipment in completed areas of the building, prior to Substantial Completion provided that such occupancy does not interfere with completion of Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.

2. All activities required on the site for completion of the work shall be accomplished within the Contract limit lines as indicated on the Drawings.

## 1.12 LINE AND LEVELS

A. Drawings indicate location of the Work.

B. Contractor shall layout all Work prior to construction and will be held responsible for its accuracy. Layout approval by Owner and Architect is required prior to construction.

C. The Owner shall establish a “Datum” or “Benchmark” at convenient locations, which will remain throughout Work, for convenience and constant reference for use of all Contractors.

D. Each Contractor is responsible for their own survey(s) and layout.

**1.13 TIME FOR COMPLETION**

A. It shall be understood and mutually agreed that the time for Substantial Completion is an essential condition of this Contract.

B. The Contractor agrees that Work shall be prosecuted diligently and uninterruptedly at such rate as will ensure Substantial Completion of all Work and Certificates of Occupancy on or before the date stated in the Contract.

C. It is expressly understood and agreed by Contractor and Owner that the time for Substantial Completion and Certificates of Occupancy are reasonable, taking into consideration average Climatic range, restrictions concerning use of the site, and other conditions prevailing.

D. Contractor shall schedule the Work accordingly.

**1.14 EXAMINATION OF SURFACES TO BE COVERED**

A. Prior to application of materials included in the various Sections, the installer, the manufacturer’s representative, and the Contractor shall together examine the building and surfaces upon which materials are to be supplied.

B. The installer and the manufacturer’s representative shall accept all surfaces and conditions affecting proper installation of their materials. The installer shall not proceed with the work until all conditions and surfaces are satisfactory to him.

C. The Contractor shall do all work necessary to correct unsatisfactory conditions and surfaces not specifically included as work of the subcontractor.

D. The subcontractor shall furnish to the Contractor for submission to the Architect 2 copies of his statement, countersigned by the manufacturer or his appointed representative that the entire installation has been made by correct techniques over properly prepared surfaces and under proper job conditions.

**1.15 FIRE SAFETY REQUIREMENTS**

A. The Contractor shall conform to the following mandatory Requirements during the work:

1. Construction-related debris shall be cleaned out of the building at the end of each working day.
2. No combustible materials shall be stored neither within the building, nor on the school grounds unless as directed.

**1.16 SCHEDULE OF VALUES REQUIREMENTS**

A. The Contractor shall conform to the following mandatory requirements for percentages of the total contract value, including accepted add alternates, for the Schedule of Values (SOV) submission. Any variations from these requirements must be approved by the Construction Manager and Architect:

1. General Conditions – 2%
2. Meeting Attendance – 1%
3. Shop Drawings / Samples Submissions – 1%
4. Temporary Utilities & Services – 1%
5. Coordination Drawings (MC/PC/EC) – 1%
6. System/Equipment Commissioning – 1%
7. Punch-List – 2%
8. Close-Out Documents (Warranties/Guarantees, As-Built Drawings, O&M Manuals, etc.) – 3%

See also Specification Section 01 2000 – Price and Payment Procedures.

## 1.17 COORDINATION MEETINGS & DRAWINGS

A. The Contractor shall coordinate the work of all Subcontractors, arrange space conditions to accommodate the work of all trades and prepare composite drawings as required to scale, clearly showing the work of each trade Contractor in relation to each other.

B. The Contractor will be held responsible for correcting unsatisfactory conditions resulting from improper coordination.

C. Contractors shall communicate and supply shop drawings to each other to insure proper coordination.

D. Coordination drawings shall be submitted to the Architect for review and approval.

E. Daily field reports are to be provided by all Contractors to the Construction Manager.

F. Coordination Meetings:

1. General: Contractors are to prepare a written memorandum on required coordination activities. Include such items as required notices, reports, minutes of meetings, and attendance at meetings. Distribute this memorandum to each entity performing work at the project site. Prepare a similar memorandum for separate contractors where interfacing of their work is required.

2. Weekly coordination meetings: Contractors shall schedule and hold weekly general project coordination meetings at regularly scheduled times that are convenient for the attendance of other parties involved in the project (i.e., Owner, Architect, CM, Subcontractors etc.). The Contractors shall record meeting results and shall make them available to the Project Team. These meetings are in addition to the specific meetings held for other purposes, such as regular project meetings and special pre-installation meetings. Required attendance includes each prime contractor and every other entity identified by any prime contractor as being currently involved in the coordination or planning for the work of the entire project. Conduct meetings in a manner that resolves coordination problems. The Construction Manager shall have a representative at the meetings. The Contractors shall distribute copies of the meeting result to everyone in attendance, the Architect and to others affected by the decisions and actions resulting from each meeting.

G. Scaled and figured dimensions with respect to the items are approximate only; sizes of equipment have been taken from typical equipment items of the classes indicated. Before proceeding with the work, the contractor shall carefully check all dimensions and

sizes and shall assume full responsibility for the fitting in of equipment and materials to the building and to meet architectural and structural conditions.

H. Separate plans shall also be prepared for sleeve locations and concrete pads for mechanical equipment required by all contractors for the performance of their work. These drawings shall be coordinated with the coordination drawings. When final information is received, such data shall be promptly inserted on the coordination drawings.

I. The HVAC Contractor shall provide electronic drawing files, at a scale of 3/8" – 1'-0" showing all HVAC equipment, ductwork, and major piping, including elevations and dimensions to all fixed building elements, such as beams; columns, slabs; ceilings; including ceiling suspensions; framing; floor; walls; doors, including door swings; and windows affected by the equipment, ductwork, and piping. Show all registers, grilles, diffusers, radiators and convectors, and other terminal elements. Show location of all valves, dampers (fire, smoke, volume, and automatic), coils, humidifiers, smoke detectors, etc. requiring access for service and maintenance. Locate all access doors. Include large-scale details and sections as required to fully delineate the conditions in congested areas, leaving space for the work of the other contractors. Show plan layout of all equipment bases, pads, and inertia blocks. Clearly label all work by HVAC Contractor.

J. The Plumbing Contractor shall overlay on the electronic coordination drawings prepared by the HVAC Contractor which indicate all HVAC water supply, drain, waste, vent, sprinkler main and branch piping, risers and sprinkler heads and other major lines. Indicate piping elevations and locations of the fire hose cabinets, drinking fountains, etc., which encroach on duct shafts. Locate valves and other items requiring access for service and maintenance. Locate all access doors. Avoid interference with HVAC work and with building construction. Use same scale as drawing being overlaid. Clearly label all work by Plumbing Contractor.

K. The Electrical Contractor shall overlay on the electronic coordination drawings prepared by the HVAC, Plumbing and Fire Protection Contractors all main conduit and bus runs, cable trays, light fixtures, major equipment, and switch gear and panel boards and clearances. Show all items requiring access for service and maintenance. Locate all access doors. Avoid interference with HVAC, Plumbing, and Fire Protection work and with building construction. Use same scale as drawings being overlaid. Clearly label all work by Electrical Contractor.

L. Each Contractor shall use the signed completed coordination drawings as a working reference. Compare all shop drawings, prior to their submittal to the Architect, with the coordination drawings and revise the shop drawings to fit the coordination drawing condition. If revisions to the coordination drawings are required because of shop drawings, make revisions as directed by Construction Manager and notify all affected contractors with copy of notification to Construction Manager. Maintain up-to-date records of all revisions on own coordination drawing copies; keep one copy at project site.

M. No extra compensation will be paid to any contractor for relocating any duct, pipe, conduit, or other material installed without coordination among trades involved or among other affected contractors. Each Contractor who causes any additional work to other contractors by improperly coordinated work or work not installed in accordance with the signed coordination drawings shall reimburse the affected other contractors for the cost of the additional work.

**PART 2 – PRODUCTS (Not Used)**

**PART 3 – EXECUTION (Not Used)**

**END OF SECTION**

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**SECTION 01 11 00**
**MILESTONE SCHEDULE**

## PART 1 GENERAL

### 1.01 MASTER SCHEDULE

The following milestone schedule serves as a basis for bidding and be incorporated into the prime contractors' submitted construction schedules and in the Master Construction Schedules.

### 1.02 SUBSTANTIAL COMPLETION & MILESTONE DATES

A. Award Contracts within 30 days of Contract Opening

B. Start Construction – Date of Award of Contracts

**C. Milestone Dates for Phase 2 at Port Jervis City School District:**
**Alterations to MS / HS & New Varsity Baseball / Softball Dugouts / Storage**
**BCA Project No. 2019-011 PH2**

| | |
|---|---|
| Bidding Period | 10/16/23 – 11/17/23 |
| Bid Opening | 11/17/23 |
| Bid Evaluation | 11/20/23 – 12/8/23 |
| Bid Award | 12/12/23 |
| Phase 2 Kick Off Meeting | 12/14/23 |
| General Requirements / Submittals | 1/2/24 – 2/23/24 |
| Material Procurement | 1/23/24 – 6/28/24 |
| *Site Contract – Mobilization – 1st shift* | *3/18/24 – 3/22/24* |
| *Site Contract – Site work (fields, etc.)– 1st shift* | *3/19/24 – 9/27/24* |
| Early Interior Work – 2nd shift | 4/8/24 – 6/26/24 |
| Interior work continuation– 1st shift | 6/27/24 – 8/16/24 |
| Interior work substantial completion | 8/16/24 |
| Interior work – punch list | 8/19/24 – 8/30/24 |
| Close out (GC/MC/PC/EC/FS) | 9/2/24 – 9/27/24 |
| *Site Contract substantial completion* | *9/27/24* |
| *Site Contract – punch list* | *9/30/24 – 10/11/24* |
| *Site Contract – close out* | *10/14/24 – 11/8/24* |

D. Final Close-out of all Contract

a. Final Close-out of Contract

i. Final close out of all contracts shall be within the dates established above. All work including, but not limited to punch lists, testing & balancing, training of Owners personnel, and submission of project closeout documentation, including but not limited to O&M manuals, as-built drawings, warranties, etc. shall be complete.

ii. All work required by the Construction Manager to execute final closeout of contracts after dates noted established above, if determined to be caused by contractor, shall result in payment to the Construction Manager in the form of a change order deduct to the base contract.

F. Coordination of Move-In

It is the intent of the School District to begin move-in of furnishings, fixtures and equipment prior to the dates of substantial completion as outlined above. The Contractor shall work

in harmony with the School District to facilitate such move-ins for the purpose of beneficial use and occupancy.

G. School District/School Operation and Custodial Hours

During the Summer work will be permitted between 7:00 a.m. and 4:00 p.m. all days except Saturday and Sundays. Any special work arrangements must be made through the Owner. Interior work during the School Year must be scheduled after School Hours.

During the school year the schools will be open until 11:00 p.m. Any work during the school year must be performed after school hours and end before 10:00 p.m. No work may occur in the school during occupied times unless there is separation and separate access to the work area and noise is restricted to max 60 db. Any requests to work during school hours must be submitted in writing to the School District for approval. The submission must include a diagram showing how the construction area will be separated from occupied areas. Additionally, it must show temporary measures to be installed such as ventilation, screening, dust protection, fire separation, etc. The School District reserves it's right to accept or reject the request at their discretion.

**END OF SECTION**

**SECTION 01 2000**
**PRICE AND PAYMENT PROCEDURES**

## THANKPART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Schedule of Values.

B. Procedures for preparation and submittal of applications for progress payments.

C. Documentation of changes in Contract Sum and Contract Time.

D. Change procedures.

### 1.02 SCHEDULE OF VALUES

A. Submit a printed schedule on AIA Form G703 - Application and Certificate for Payment Continuation Sheet. Contractor's standard form or electronic media printout will be considered so long as it meets the criteria as set forth below.

B. Submit Schedule of Values in duplicate within 15 business days after date of Owner-Contractor Agreement.

C. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification Section for each project site. Provide breakdown for both labor and material. Identify site mobilization, site demobilization, bonds and insurance, and allowances seperately.

D. Include within each line item a direct proportional amount of Contractor's overhead and profit.

E. Include a line item for Record Drawings and Specifications which are to be turned over to the Owner at the end of the project. The amount shall not be less than 0.15 percent of the Contract Price.

F. Revise schedule to list approved Change Orders, with each Application for Payment.

G. Include a line item for completion and/or correction of work items listed with the certificate of substantial completion in accordance with closeout procedures. The amount shall not be less than 1 percent of the contract price and will be withheld in its entirety until final payment is released.

### 1.03 APPLICATIONS FOR PROGRESS PAYMENTS

A. Submit one (1) copy of the Certified Payroll from the Prime Contractor and all subcontractors to the Owner prior to the submission of the Contractor's Application for Payment.

B. Payment Period: 30 calendar day period. Refer to the General Conditions.

C. Present required information in typewritten form.

D. Form: AIA G702 Application and Certificate for Payment and AIA G703 - Continuation Sheet including continuation sheets when required.

E. For each item, provide a column for listing each of the following:
   1. Item Number.
   2. Description of work.
   3. Scheduled Values, indicate labor and material.
   4. Previous Applications.
   5. Work in Place and Stored Materials under this Application.
   6. Authorized Change Orders.
   7. Total Completed and Stored to Date of Application.
   8. Percentage of Completion.
   9. Balance to Finish.
   10. Retainage.

F. Execute certification by signature of authorized officer.

G. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.

H. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work.

I. Payment for stored material: Payment for stored material shall be in accordance with the provisions of the General Conditions. Payments for stored material shall be in the amount of 95 percent of the value of the materials less 5 percent retainage. No payment will be made for materials improperly stored or improperly protected from the weather loss or other damage. All materials stored off-site shall be fully insured against all losses by the Contractor, and proof of such coverage shall be submitted with the request for payment.

J. Submit a pencil copy of the Payment Application to the Resident Project Representative for review and approval prior to the submission of hard copies.

K. Upon receipt of the approved pencil copy, prepare and submit three (3) copies of each Application for Payment on AIA Form G702. Include a legible copy of the approved pencil copy with the three (3) applications for payment.

L. When Architect/Engineer requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

**1.04 MODIFICATION PROCEDURES**

A. Submit name of the individual authorized to receive change documents and who will be responsible for informing others in Contractor's employ or subcontractors of changes to the Contract Documents.

B. Architect/Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum or Contract Time as authorized by the Conditions of the Contract by issuing supplemental instructions.

C. Construction Change Directive: Architect/Engineer may issue a document, **on AIA Form G714**, signed by Owner, instructing Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. The Document shall describe the changes in the Work and designates method of determining any change in Contract Sum or Contract Time.
   1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
   2. Promptly execute the change.

D. Proposal Request: Architect/Engineer may issue a document which includes a detailed description of a proposed change with supplementary or revised Drawings and specificationswith a stipulation of any overtime work requiredand the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 7 calendar days.

E. Contractor may propose a change by submitting a request for change to Architect/Engineer, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions in accordance with Section 01 6000.

F. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
   1. For change requested by Architect/Engineer for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
   2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect/Engineer.

3. For pre-determined unit prices and quantities, the amount will based on the fixed unit prices.
4. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material Work.

G. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Architect/Engineer will determine the change allowable in Contract Sum and Contract Time as provided in the Contract Documents.
1. Maintain detailed records of work done on time and material basis. Provide full information required for evaluation of proposed changes and to substantiate costs for changes in the work

H. Substantiation of Costs: Provide full information required for evaluation.
1. Provide following data:
a. Quantities of products, labor, and equipment.
b. Overhead and profit.
c. Justification for any change in Contract Time.
d. Credit for deletions from Contract, similarly documented.

I. Execution of Change Orders: Architect/Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract on AIA G701.

J. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.

K. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.

L. Promptly enter changes in Project Record Documents.

M. Payment for rock excavation shall be in accordance with unit price allowances: Rock excavation is defined as removal of established bedrock, ledge rock, or similarly naturally occurring material which cannot be removed using conventional excavating equipment. Excavation and removal of rock fragments and boulders greater than 1 cubic yard in volume shall also be included in rock excavation. Payment lines for rock excavation shall include trimming of rock back on each side of trenches so that no rock protrudes within 6" of the installed pipe on sides or bottom. Payment lines for rock excavation necessary for excavation of foundation shall include trimming of rock to 1'-0" beyond outside face of footing or grade beam.

**1.05 APPLICATION FOR FINAL PAYMENT**

A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

B. Application for Final Payment will not be considered until the following have been accomplished:
1. All closeout procedures specified in Section 01 7000.
2. All Items to be Completed issued at the time of Substantial Completion are completed and accepted.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

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**SECTION 01 2100**
**ALLOWANCES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Cash allowances.

B. Payment and modification procedures relating to allowances.

### 1.02 RELATED REQUIREMENTS

A. Section 01 2000 - Price and Payment Procedures: Additional payment and modification procedures.

### 1.03 ALLOWANCES

A. When authorized by the Architect/Engineer, cash allowances will be authorized by a Construction Change Directive. The determination shall be as described in Article 7.3 of the General Conditions of the Contract for Construction and Supplementary Conditions of the Contract for Construction.

B. Costs included in the Contractor's allowances shall include all costs as outlined in the General Conditions of the Contract for Construction and Supplementary Conditions of the Contract for Construction.

C. Architect/Engineer Responsibilities:
   1. Consult with Contractor for consideration and selection of products.
   2. Select products in consultation with Owner and transmit decision to Contractor.

D. Contractor Responsibilities:
   1. Assist Architect/Engineer in selection of products, suppliers, and installers.
   2. Obtain proposals from suppliers and installers and offer recommendations.
   3. On notification of which products have been selected, execute purchase agreement with designated supplier and installer.
   4. Arrange for and process Shop Drawings, product data, and samples. Arrange for delivery.
   5. Promptly inspect products upon delivery for completeness, damage, and defects.

E. The Owner reserves the right to reduce or eliminate all allowances at any time during this Contract by change order.

F. It is expressly understood that, at the completion of the project, all remaining ususued portions of the allowance(s), shall be credited to the Owner. A deductive Change Order will be prepared by Architect and executed by the Architect, Construction Manager, Owner and Contractor.

### 1.04 ALLOWANCE SCHEDULE

A. **Contract No. 1 - General Construction:**
   1. Bid Item No.1 - Field Directive Allowance: The General Contractor shall include in his Total Base Bid a cash allowance in the amount $300,000.00 for Work Directive Changes as authorized by the Architect and Construction Manager in accordance with pertinent provisions of the General Conditions of the Construction Contract.

B. **Contract No. 2 - Mechanical Construction:**
   1. Bid Item No.1 - Field Directive Allowance: The Mechanical Contractor shall include in his Total Base Bid a cash allowance in the amount $95,000.00 for Work Directive Changes as authorized by the Architect and Construction Manager in accordance with pertinent provisions of the General Conditions of the Construction Contract.

C. **Contract No. 3 - Plumbing Construction:**

1. Bid Item No.1 - Field Directive Allowance: The Plumbing Contractor shall include in his Total Base Bid a cash allowance in the amount $24,000.00 for Work Directive Changes as authorized by the Architect and Construction Manager in accordance with pertinent provisions of the General Conditions of the Construction Contract.

D. **Contract No. 4 - Electrical Construction:**
1. Bid Item No.1 - Field Directive Allowance: The Electrical Contractor shall include in his Total Base Bid a cash allowance in the amount $58,000.00 for Work Directive Changes as authorized by the Architect and Construction Manager in accordance with pertinent provisions of the General Conditions of the Construction Contract.

E. **Contract No. 5 - Site Construction:**
1. Bid Item No.1 - Field Directive Allowance: The Site Contractor shall include in his Total Base Bid a cash allowance in the amount $125,000.00 for Work Directive Changes as authorized by the Architect and Construction Manager in accordance with pertinent provisions of the General Conditions of the Construction Contract.
2. Bid Item No. 2 - Unsuitable Soils (100 cubic yards): The Site Contractor shall include in his Total Base Bid an allowance for the removal and disposal of 100 cubic yards of unsuitable soils and replacement with granular fill in accordance with pertinent provisions of the General Conditions of the Construction Contract.

F. **Contract No. 7: FS1 - Food Service:**
1. Bid Item No.1 - Field Directive Allowance: The Food Service Contractor shall include in his Total Base Bid a cash allowance in the amount $10,000.00 for Work Directive Changes as authorized by the Architect and Construction Manager in accordance with pertinent provisions of the General Conditions of the Construction Contract.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 2200**
**UNIT PRICES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. List of unit prices, for use in preparing Bids.

B. Measurement and payment criteria applicable to Work performed under a unit price payment method.

### 1.02 RELATED REQUIREMENTS

A. Document 00 2113 - Instructions to Bidders: Instructions for preparation of pricing for Unit Prices.

B. Section 01 2000 - Price and Payment Procedures: Additional payment and modification procedures.

### 1.03 COSTS INCLUDED

A. Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

### 1.04 UNIT QUANTITIES SPECIFIED

A. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements of actual Work will determine the payment amount.

### 1.05 MEASUREMENT OF QUANTITIES

A. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of the individual specification section govern.

B. Take all measurements and compute quantities. Measurements and quantities will be verified by Architect.

C. Assist by providing necessary equipment, workers, and survey personnel as required.

D. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.

E. Contractor's Engineer Responsibilities: Sign surveyor's field notes or keep duplicate field notes , calculate and certify quantities for payment purposes.

### 1.06 PAYMENT

A. Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities of Work that is incorporated in or made necessary by the Work and accepted by the Architect, multiplied by the unit price.

### 1.07 SCHEDULE OF UNIT PRICES

A. Item: Contract No. 5 - Site Work: Unit Price No. 1 - Unsuitable Soils: Per Cubic Yard removal, and legal disposal off site and replacement with granular fill.; Refer also to Sections 31 2316 Excavation and 31 2323 Fill.

## PART 2 PRODUCTS - NOT USED

## PART 3 EXECUTION - NOT USED

**END OF SECTION**

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**SECTION 01 3000**
**ADMINISTRATIVE REQUIREMENTS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. General administrative requirements.

B. Preconstruction meeting.

C. Progress meetings.

D. Construction progress schedule.

E. Coordination drawings.

F. Submittals for project closeout.

G. Requests for Interpretation (RFI) procedures.

H. Submittal procedures.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6000 - Product Requirements: General product requirements.

B. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.

C. Section 01 7800 - Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

### 1.03 GENERAL ADMINISTRATIVE REQUIREMENTS

A. Comply with requirements of Section 01 7000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.

B. Make the following types of submittals to Architect:
   1. Requests for Interpretation (RFI).
   2. Requests for substitution.
   3. Shop drawings, product data, and samples.
   4. Test and inspection reports.
   5. Design data.
   6. Manufacturer's instructions and field reports.
   7. Applications for payment and change order requests.
   8. Progress schedules.
   9. Coordination drawings.
   10. Correction Punch List and Final Correction Punch List for Substantial Completion.
   11. Closeout submittals.

## PART 2 PRODUCTS - NOT USED

## PART 3 EXECUTION

### 3.01 PRECONSTRUCTION MEETING

A. Architect will schedule a meeting after Notice of Award.

B. Attendance Required:
   1. Owner.
   2. Architect.
   3. Contractor.

C. Agenda:
   1. Execution of Owner-Contractor Agreement.
   2. Submission of executed bonds and insurance certificates.

3. Distribution of Contract Documents.
4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
5. Designation of personnel representing the parties to Contract .
6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.

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

**3.02 PROGRESS MEETINGS**

A. Architect will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.

B. Attendance Required:
1. Contractor.
2. Owner.
3. Architect.
4. Contractor's superintendent.
5. Major subcontractors.

C. Agenda:
1. Review minutes of previous meetings.
2. Review of work progress.
3. Field observations, problems, and decisions.
4. Identification of problems that impede, or will impede, planned progress.
5. Review of submittals schedule and status of submittals.
6. Review of RFIs log and status of responses.
7. Review of off-site fabrication and delivery schedules.
8. Maintenance of progress schedule.
9. Corrective measures to regain projected schedules.
10. Planned progress during succeeding work period.
11. Coordination of projected progress.
12. Maintenance of quality and work standards.
13. Effect of proposed changes on progress schedule and coordination.
14. Other business relating to work.

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

**3.03 CONSTRUCTION PROGRESS SCHEDULE - SEE SECTION 01 3216**

A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of work, with a general outline for remainder of work.

**3.04 COORDINATION DRAWINGS**

**3.05 REQUESTS FOR INTERPRETATION (RFI)**

A. Definition: A request seeking one of the following:
1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.
2. A resolution to an issue which has arisen due to field conditions and affects design intent.

B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.

C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
   1. Prepare a separate RFI for each specific item.
      a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
      b. Do not forward requests which solely require internal coordination between subcontractors.
   2. Prepare in a format and with content acceptable to Owner.
   3. Prepare using an electronic version of the form appended to this section.
   4. Combine RFI and its attachments into a single electronic file. PDF format is preferred.

D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
   1. Include in each request Contractor's signature attesting to good faith effort to determine from Contract Documents information requiring interpretation.
   2. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
      a. Approval of submittals (use procedures specified elsewhere in this section).
      b. Approval of substitutions (see Section - 01 6000 - Product Requirements)
      c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
      d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
   3. Improper RFIs: Requests not prepared in compliance with requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
   4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.

E. Review Time: Architect will respond and return RFIs to Contractor within seven calendar days of receipt. For the purpose of establishing the start of the mandated response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.

### 3.06 SUBMITTALS FOR PROJECT CLOSEOUT

A. Submit Correction Punch List for Substantial Completion.

B. Submit Final Correction Punch List for Substantial Completion.

C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 01 7800 - Closeout Submittals:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   4. Bonds.
   5. Other types as indicated.

D. Submit for Owner's benefit during and after project completion.

**END OF SECTION**

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**SECTION 01 3300**
**SUBMITTAL PROCEDURES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Submittal Procedures.

B. Submittals for Shop Drawings, Product Data, Samples and other submittals.

C. Number of copies of submittals.

### 1.02 RELATED REQUIREMENTS

A. General and Supplementary Conditions for submitting Applications for Payment and the Schedule of Values.

B. Section 01 3000 for submitting and distributing meeting and conference minutes and for submitting Coordination Drawings.

C. Section 01 3216 for submitting schedules and reports, including Contractor's Construction Schedule and the Submittals Schedule.

D. Section 01 4000 for submitting test and inspection reports and for mockup requirements.

E. Section 01 4533 for submitting test and inspection reports.

F. Section 01 7800 for submitting warranties.

G. Section 01 7800 for submitting Record Drawings, Record Specifications, and Record Product Data.

H. Section 01 7800 for submitting operation and maintenance manuals.

I. Section 01 7900 for submitting of demonstration of equipment and training of Owner's personnel.

J. Divisions 02 through 49 Sections for specific requirements for submittals in those Sections.

### 1.03 DEFINITIONS

A. Action Submittals: Written and graphic information that requires Architect’s responsive action.

B. Informational Submittals: Written information that does not require Architect’s responsive action. Submittals may be rejected for not complying with requirements.

### 1.04 SUBMITTAL PROCEDURES

A. General: Electronic copies of CAD Drawings of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals upon execution of the required release forms and written approval of the Owner. Consult the office of the Architect for costs and other information pertaining to the process for the release of CADD files.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
   1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
   2. 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.

C. Submittals Schedule: Comply with requirements in Section 01 3216 for list of submittals and time requirements for scheduled performance of related construction activities.

D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
   1. Initial Review: Allow 30 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
   2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
   3. Resubmittal Review: Allow 30 days for review of each resubmittal.
   4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 30 days for initial review of each submittal.
   5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 30 days for review of each submittal. Submittal will be returned to Architect before being returned to Contractor. Submit samples, chips, charts for materials and products for which color, pattern, texture of other characteristics are required to be selected. All color submittals will be required before any color selections will be approved, in order to ensure color integrity for the entire project. Approval for color selections may take up to 30 days after all samples are received. No extension of Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.

E. Identification: Place a permanent label or title block on each submittal for identification.
   1. Indicate name of firm or entity that prepared each submittal on label or title block.
   2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
   3. Include the following information on label for processing and recording action taken:
      a. Project name.
      b. Date.
      c. Name and address of Architect.
      d. Name and address of Contractor.
      e. Name and address of subcontractor.
      f. Name and address of supplier.
      g. Name of manufacturer.
      h. Submittal number or other unique identifier, including revision identifier.
         1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (i.e., 06 1000.01). Resubmittals shall include an alphabetic suffix after another decimal point (i.e., 06 1000.01.A).
      i. Number and title of appropriate Specification Section.
      j. Drawing number and detail references, as appropriate.
      k. Location(s) where product is to be installed, as appropriate.
      l. Other necessary identification.

F. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.

G. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
   1. Submit one (1) copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.

H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review, received from sources other than Contractor.

1. Transmittal Form: Provide locations on form for the following information:
    a. Project name.
    b. Date.
    c. Destination (To:).
    d. Source (From:).
    e. Names of subcontractor, manufacturer, and supplier.
    f. Category and type of submittal.
    g. Submittal purpose and description.
    h. Specification Section number and title.
    i. Drawing number and detail references, as appropriate.
    j. Transmittal number, numbered consecutively.
    k. Submittal and transmittal distribution record.
    l. Remarks.
    m. Signature of transmitter: 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 label information as related submittal.

I. 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.

J. 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.

**PART 2 PRODUCTS**

**2.01 ACTION SUBMITTALS**

A. General: Prepare and submit Action Submittals required by individual Specification Sections.

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
    1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
    2. Mark each copy of each submittal to show which products and options are applicable.
    3. Include "Accessory Material VOC Content Certification Form" with all Product Data submittals.
    4. Include the following information, as applicable:
        a. Manufacturer's written recommendations
        b. Manufacturer's product specifications.
        c. Manufacturer's installation instructions.
        d. Standard color charts.
        e. Manufacturer's catalog cuts.
        f. Wiring diagrams showing factory-installed wiring.
        g. Printed performance curves.
        h. Operational range diagrams.
        i. Mill reports.
        j. Standard product operation and maintenance manuals.
        k. Compliance with specified referenced standards.
        l. Testing by recognized testing agency.
        m. Application of testing agency labels and seals
        n. Notation of coordination requirements.

1) Submit Product Data before or concurrent with Samples.

5. 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.
   a. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
      1) Dimensions.
      2) Identification of products.
      3) Fabrication and installation drawings.
      4) Roughing-in and setting diagrams.
      5) Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
      6) Shopwork manufacturing instructions.
      7) Templates and patterns.
      8) Schedules.
      9) Design calculations.
      10) Compliance with specified standards.
      11) Notation of coordination requirements.
      12) Notation of dimensions established by field measurement.
      13) Relationship to adjoining construction clearly indicated.
      14) Seal and signature of professional engineer if specified.
      15) Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
         (a) Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 inches x 11 inches but no larger than 30 inches x 40 inches.
6. 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.
   a. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
   b. Identification: Attach label on unexposed side of Samples that includes the following:
      1) Generic description of Sample.
      2) Product name and name of manufacturer.
      3) Sample source.
      4) Number and title of appropriate Specification Section.
         (a) Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
            (1) 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.
            (2) Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
            (3) 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.
            (4) Number of Samples: Submit two full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.

(5) 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.

(6) Number of Samples: Submit three (3) sets of Samples. Architect will retain one Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project Record Sample.

(7) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.

(8) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.

7. Product Schedule or List: 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:
   a. Type of product. Include unique identifier for each product.
   b. Number and name of room or space.
   c. Location within room or space.
8. Schedule: Comply with requirements specified in Section 01 3216.
9. Application for Payment: Comply with requirements specified in General and Supplementary Conditions.
10. Schedule of Values: Comply with requirements specified in General and Supplementary Conditions.
11. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
    a. Name, address, and telephone number of entity performing subcontract or supplying products.
    b. Number and title of related Specification Section(s) covered by subcontract.
    c. Drawing number and detail references, as appropriate, covered by subcontract.

**2.02 INFORMATIONAL SUBMITTALS**

A. General: Prepare and submit Informational Submittals required by other Specification Sections.
   1. Number of Copies: Submit one (1) copy of each submittal, unless otherwise indicated. Architect will not return copies.
   2. Certificates and Certifications: Provide a notarized 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.
   3. Test and Inspection Reports: Comply with requirements specified in Division 01 Section "Quality Requirements."
   4. Coordination Drawings: Comply with requirements specified in Section 01 3000.
   5. Contractor's Construction Schedule: Comply with requirements specified in Section 01 3000.
   6. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

7. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
8. Installer Certificates: Prepare 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.
9. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
10. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
11. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
12. Material Test Reports: Prepare 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.
13. Product Test Reports: Prepare written reports indicating 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.
14. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
    a. Name of evaluation organization.
    b. Date of evaluation.
    c. Time period when report is in effect.
    d. Product and manufacturers' names.
    e. Description of product.
    f. Test procedures and results.
    g. Limitations of use.
15. Schedule of Tests and Inspections: Comply with requirements specified in Section 01 4000.
16. Preconstruction Test Reports: Prepare 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.
17. Compatibility Test Reports: Prepare 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.
18. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, 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.
19. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Section 01 7800 - Closeout Submittals.
20. Design Data: Prepare 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.

21. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
    a. Preparation of substrates.
    b. Required substrate tolerances.
    c. Sequence of installation or erection.
    d. Required installation tolerances.
    e. Required adjustments.
    f. Recommendations for cleaning and protection.
22. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
    a. Name, address, and telephone number of factory-authorized service representative making report.
    b. Statement on condition of substrates and their acceptability for installation of product.
    c. Statement that products at Project site comply with requirements.
    d. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
    e. Results of operational and other tests and a statement of whether observed performance complies with requirements.
    f. Statement whether conditions, products, and installation will affect warranty.
    g. Other required items indicated in individual Specification Sections.
23. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
24. Material Safety Data Sheets (MSDSs): Submit information directly to Owner; do not submit to Architect.

**2.03 DELEGATED DESIGN**

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 Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit three copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
    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.

**2.04 NUMBER OF COPIES OF SUBMITTALS**

A. Documents for Review:
    1. The Contractor shall submit one (1) copy of all required information (as outlined in the Contract Specifications). This information shall be submitted in electronic form (.pdf file capable of being viewed on Adobe Acrobat 6.0 or later.)
    2. **Electronic files shall be submitted via e-mail to submittals@thebcgroup.com or through Newforma Project Center - Info Exchange. All successful Contractors will be given instructions on how to utilize Newforma Project Center upon the execution of Agreements.**

3. Should a contractor not have the capabilities of submitting electronically, hard copies will be acceptable. The Contractor shall submit one (1) copy of all required information (as outlined herein). The Architect/Engineer shall scan in the hard copy. The Architect/Engineer shall review, mark-up, and return via e-mail the modified electronic submittal. It will be the contractor's responsibility to print out returned submittals.
4. Procedures:
    a. Outline Drawings: Drawings of equipment, weights, external forces, anchor details and dimensions.
    b. Wiring Diagrams: Schematic and full-line wiring diagrams for all equipment furnished. Switch developments and internal connection diagrams for all instruments, relays, and other devices.
    c. Detail and Erection Drawings: Drawings to demonstrate that all parts will conform to the provisions and intent of the Contract Documents.
    d. Field Detail Drawings: Concrete lift drawings, reinforcing steel placing drawings and bar lists, piping bills of materials, and electrical conduit layout drawings.
    e. Drawing Review:
        1) Review will not relieve the Contractor of responsibility for conformity to the Contract Documents and correct detail and fit of parts when installed.
        2) Prints marked "No Exceptions Taken" or "Exceptions as Noted" authorize the Contractor to proceed with construction or fabrication covered by such drawings with the corrections, if any.
        3) Prints marked "Revise and Resubmit" shall be corrected and re-submitted.
        4) Each drawing shall have its latest revision clearly indicated by number and date shown in a revision block.
        5) Applicable parts of the requirements of the above paragraphs shall apply equally to other submittals.
5. Documents for Information: Submit one (1) copy.
6. Documents for Project Closeout: See Specification Section 01 7800 for Project Closeout requirements.
7. Samples: Submit the number specified in individual specification sections; Samples will not be returned to the contractor.

## PART 3 EXECUTION

### 3.01 CONTRACTOR'S REVIEW

A. 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.

### 3.02 ARCHITECT'S / ACTION

A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.

B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
    1. Final Unrestricted Release: When the Architect marks a submittal "No Exceptions Taken," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.

2. Final-But-Restricted Release: When the Architect marks a submittal "Exceptions As Noted," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.
3. Restricted Release, Returned for Resubmittal: When the Architect marks a submittal “For Construction According to Notations, Revise and Resubmit,” the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.
4. Returned for Resubmittal: When the Architect marks a submittal "Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.
5. Do not use, or allow others to use, submittals marked "Resubmit" at the Project Site or elsewhere where Work is in progress.
6. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
7. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

**END OF SECTION**

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**SECTION 01 3529.10**
**LIFE SAFETY REQUIREMENTS DURING SCHOOL CONSTRUCTION**

## PART 1 GENERAL

### 1.01 BASIC REQUIREMENTS

A. All Construction shall comply with the New York State Education Department Commissioner's Regulations, Section 155.5 Uniform Safety Standards for School Construction and Maintenance Projects.

B. The occupied portion of the school building shall always comply with the minimum requirements necessary to maintain a valid Certificate of Occupancy and shall be monitored during construction for safety violations by School District personnel.

C. The areas to be disturbed by reconstruction, alteration or demoition have been tested for the presence of asbestos and lead. See Section 02 2600 for additional information.

### 1.02 SAFETY AND SECURITY STANDARDS

A. General Safety and Security Standards for Construction Projects:

1. All Construction, Reconstruction and Renovation Work shall be performed in a manner to protect the workers and public from injury. Adjoining property and structures shall be protected from damage at all times by all Contractors.
2. The Contractors are to maintain clear and safe passage through the existing corridors throughout the duration of the project.
3. All construction materials shall be stored in a safe and secure manner.
4. Fences around construction supplies or debris shall be maintained. Gates shall always be locked unless a worker is in attendance to prevent unauthorized entry.
5. During exterior renovation Work, overhead protection shall be provided for any entry/exit, sidewalks, or areas immediately beneath the Work Site and such areas shall be fenced off and provided with warning signs to prevent unauthorized entry.
6. Workers shall be required to wear photo-identification badges at all times for identification and security purposes while working at the Project Site.
7. Exterior Protection of Pedestrians:

| Height of Construction | Distance from Construction to Lot Line | Type of Protection |
|---|---|---|
| 8 feet or less | Less than 5 feet | Construct railings |
| 8 feet or less | 5 feet or more | None |
| More than 8 feet | Less than 5 feet | Barrier and covered walkway |
| More than 8 feet | 5 feet or more, but no more than one-forth the height of construction | Barrier and covered walkway |
| More than 8 feet | 5 feet or more, but between one-forth and one-half the height of construction | Barrier |
| More than 8 feet | 5 feet or more, but exceeding one-half the height of construction | None |

   a. Barrier Design: Barriers shall be designed to resist loads required in Chapter 16 of the Building Code of New York State.

8. Throughout the duration of the project, the E-Contractor (Electrical) is responsible for the maintenance and operation of the existing fire alarm and fire detection system throughout the building including areas occupied by the Owner and areas of renovation.

## 1.03 SEPARATION

A. Separation of Construction Areas from Occupied Spaces.
   1. 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 by code compliant construction.
   2. 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.
   3. Type 'X' gypsum board on metal studs must be used in exit ways and other areas that require fire rated separation.
   4. 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.
   5. School buildings occupied during a Construction Project shall maintain required health, safety, and educational capabilities at all times that classes are in session.
   6. A specific stairwell and/or elevator shall be assigned for construction worker use during work hours. In general, construction workers may not use corridors, stairs, or elevators designated for students or school staff.
   7. 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.
   8. All occupied parts of the building affected by renovation activity shall be cleaned at the close of each work day utilizing hepa filtered vacuum system.

## 1.04 VENTILATION

A. The existing ventilation system shall be maintained throughout the Project in occupied areas.

B. The Contractor shall provide temporary ventilation and/or modification to existing ventilation systems as indicated in the Construction Drawings or as required by the Architect, Resident Project Representative, and Owner.

## 1.05 EXITING

A. Required building exiting shall be maintained at all times so that there are no dead end conditions or corridor pockets greater than 1-1/2 times the corridor or pocket width.

B. The Contractor shall provide temporary exits and related construction to maintain exiting capacities as required in the Construction Drawings or determined by the Architect, Resident Project Representative, and Owner.

## 1.06 FIRE AND HAZARD PREVENTION

A. Areas of buildings under construction that are to remain occupied shall maintain a Certificate of Occupancy. In addition, all requirements itemized on the Fire Safety Inspection Report shall be in compliance during periods of student or staff occupancy, the following shall be strictly enforced.
   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. The Contractor shall promptly move any or all construction debris, materials, and/or equipment as required to maintain exist passages at all times and clear during student or staff occupancy.
   3. Proper operation of fire extinguishers, fire alarm, and smoke/fire detection systems shall be maintained throughout the duration of the Project.

## 1.07 NOISE ABATEMENT

A. Construction activities and operations shall not produce noise in excess of 60 dba in occupied spaces. If noise levels in occupied classroom spaces exceed 60 dba the Contractor shall provide acoustical abatement procedures or schedule activities during unoccupied times. Each Contractor is advised that the School District may schedule "no work" periods during the Project.

## 1.08 HAZARD CONTROL

A. The Contractor shall take every precaution to eliminate the potential of construction fumes entering the occupied building. The Contractor shall take care to assure fresh air intakes do not draw construction related fumes into the building.
   1. The contractor shall be responsible for the control of chemical fumes, gases, and other contaminates 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.

B. The Contractor shall provide for "off-gassing" of volatile organic compounds introduced during construction before occupancy. Specific attention is warranted for activities including glues, paint, furniture, carpeting, wall coverings, and drapery. Manufacturers shall be contacted to obtain information regarding appropriate temperatures and times needed to cure or ventilate the product during use and before safe occupancy of a space can be assured. Building materials or furnishings which "off-gas" chemical fumes, gases, or other contaminants shall be aired out in a well-ventilated heated warehouse before it is brought to the Project Site for installation or the manufacturer's recommended "off-gassing" periods must be scheduled between installation and use of the space. If the Work will generate toxic gases that cannot be contained in an isolated area, the Work must be done when school classes and programs are not in session. The Work Areas must be properly ventilated and the material must be given proper time to cure or "off gas" before re-occupancy.

C. The Contractor shall maintain the Manufacturer's Material Safety Data Sheets (MSDS) at the site for all products used in the project. MSDS shall be provided to the School District when requested. MSDS indicate chemicals used in the product, product toxicity, typical side effects of exposure to the product, and safe procedures for use of the product.

D. Asbestos abatement protocols. 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(12 NYCRR 56), and the Federal Asbestos Hazard Emergency Response Act(AHERA),40 CFR Part 763 (Code of Federal Regulations, 1998 Edition, Superintendent of Public Documents, U.S. Government Printing Office, Washington, DC 20402; 1998.
   1. Large and small asbestos abatement projects as defined by 12NYCRR56 shall not be performed while the building is occupied.” Note, It is the State Education Department's current 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 potential contaminates which do not pass through the occupied portion and ventilation systems and must be physically separated and sealed at the isolation barrier.
   2. 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.
   3. Reference Sections 02 6200 Asbestos, Lead and Pcb Assessment and 02 8213 Asbestos Abatement for additional information.

E. Asbestos Abatement Protocols. If, in the event unknown, unsuspected asbestos containing materials are discovered in a friable state, or disturbed, or required to be removed to safely accommodate required construction, notify the Architect, Resident Project Representative, and Owner immediately.

F. Lead paint. 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, 451 7th Street SW, Washington, D.C. 20410 (202)401-0388; available at the Department of Housing and Urban Renewal web site; www.hud.gov/lea/leadwnlo.html). All areas scheduled for construction as well as areas of flaking and peeling paint shall be tested for the presence of lead and abated or encapsulated in accordance with the above noted guidelines. EPA Certified Lead Risk Assessor must perform analysis and an EPA Certified Lead Supervisor whom is also a New York State licensed Architect or Engineer shall prepare the Lead Hazard Control Plan.
   1. Reference Sections 02 6200 Asbestos, Lead and Pcb Assessment for additional information.

G. Lead Paint. All existing painted surfaces identified as lead containing will require control and clean-up 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, 451 7th Street SW, Washington, D.C. 20410 (202) 401-0388; available at the Department of Housing and Urban Renewal web site; www.hud.gov/lea/leadwnlo.html). All areas scheduled for construction as well as areas of flaking and peeling paint shall be tested for the presence of lead and abated or encapsulated in accordance with the above noted guidelines. EPA Certified Lead Risk Assessor must perform analysis.

**1.09 POST CONSTRUCTION INSPECTION**

A. Each Contractor is advised that the School District shall be provided the opportunity for a walk-through inspection by the School District's Health and Safety Committee members to confirm building safety during construction and that the area is ready to be re-opened for occupancy.

**PART 2 PRODUCTS - NOT USED.**

**PART 3 EXECUTION - NOT USED.**

**END OF SECTION**

**SECTION 01 3553**
**SECURITY PROCEDURES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

### 1.02 RELATED REQUIREMENTS

A. Section 01 1000 - Summary: use of premises and occupancy.

B. Section 01 5000 - Temporary Facilities and Controls: Temporary lighting.

### 1.03 SECURITY PROGRAM

A. Protect Work , existing premises and Owner's operations from theft, vandalism, and unauthorized entry.

B. Initiate program in coordination with Owner's existing security system at project mobilization.

C. Maintain program throughout construction period until Owner acceptance precludes the need for Contractor security.

### 1.04 ENTRY CONTROL

A. Restrict entrance of persons and vehicles into Project site and existing facilities.

B. Allow entrance only to authorized persons with proper identification.

C. Maintain log of workers and visitors, make available to Owner on request.

### 1.05 PERSONNEL IDENTIFICATION

A. Provide identification badge to each person authorized to enter premises.

B. Badge To Include: Personal photograph, name , expiration date and employer.

C. Maintain a list of accredited persons, submit copy to Owner on request.

D. Require return of badges at expiration of their employment on the Work.

## PART 2 PRODUCTS - NOT USED

## PART 3 EXECUTION - NOT USED

**END OF SECTION**

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**SECTION 01 4000**
**QUALITY REQUIREMENTS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Submittals.

B. Quality assurance.

C. References and standards.

D. Testing and inspection agencies and services.

E. Contractor's design-related professional design services.

F. Control of installation.

G. Mock-ups.

H. Tolerances.

### 1.02 RELATED REQUIREMENTS

A. Section 01 3000 - Administrative Requirements: Submittal procedures.

B. Section 01 6000 - Product Requirements: Requirements for material and product quality.

### 1.03 DEFINITIONS

A. Contractor's Professional Design Services: Design of some aspect or portion of the project by party other than the design professional of record. Provide these services as part of the Contract for Construction.
   1. Design Services Types Required:

### 1.04 CONTRACTOR'S DESIGN-RELATED PROFESSIONAL DESIGN SERVICES

A. Coordination: Contractor's professional design services are subject to requirements of project's Conditions for Construction Contract.

B. Base design on performance and/or design criteria indicated in individual specification sections.

C. Scope of Contractor's Professional Design Services: Provide for the following items of work:
   1. Structural Design: Include physical characteristics, engineering calculations, and resulting dimensional limitations as described in Section 08 4313 - Aluminum-Framed Storefronts.
   2. Structural Design: Include calculations for resisting wind loads, physical characteristics, resulting dimensional limitations as described in Section 08 4500 - Translucent Wall and Roof Assemblies.
   3. Design of Structural Components: As described in Section 14 2400 - Hydraulic Elevators.
   4. Sprinkler Layout: Coordinate with ceiling installation, detailed pipe layout, and hydraulic calculations as described in Section 21 1300 - Fire-Suppression Sprinkler Systems.
   5. Design of Structural Fill: As described in Section 31 2323 - Fill.
   6. Design of Geofoam Fill: As described in Section 31 2323.43 - Geofoam.

### 1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Test Reports: After each test/inspection, promptly submit two copies of report to Architect and to Contractor.
   1. Include:
      a. Date issued.
      b. Project title and number.
      c. Name of inspector.
      d. Date and time of sampling or inspection.

e. Identification of product and specifications section.
f. Location in the Project.
g. Type of test/inspection.
h. Date of test/inspection.
i. Results of test/inspection.
j. Compliance with Contract Documents.
k. When requested by Architect, provide interpretation of results.

2. Test report submittals are for Architect's knowledge as contract administrator for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents, or for Owner's information.

C. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for Owner.
1. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.

**1.06 QUALITY ASSURANCE**

A. Designer Qualifications: Where professional engineering design services and design data submittals are specifically required of Contractor by Contract Documents, provide services of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

**1.07 REFERENCES AND STANDARDS**

A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.

C. Obtain copies of standards where required by product specification sections.

D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.

E. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.

F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from Contract Documents by mention or inference otherwise in any reference document.

**1.08 TESTING AND INSPECTION AGENCIES AND SERVICES**

A. Owner will employ and pay for services of an independent testing agency to perform other specified testing.

B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

**PART 3 EXECUTION**

**2.01 CONTROL OF INSTALLATION**

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.

D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Have work performed by persons qualified to produce required and specified quality.

F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.

G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

**2.02 MOCK-UPS**

A. Before installing portions of the Work where mock-ups are required, construct mock-ups in location and size indicated for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work. The purpose of mock-up is to demonstrate the proposed range of aesthetic effects and workmanship.

B. Accepted mock-ups establish the standard of quality the Architect will use to judge the Work.

C. Provide supervisory personnel who will oversee mock-up construction. Provide workers that will be employed during the construction at Project.

D. Tests shall be performed under provisions identified in this section and identified in the respective product specification sections.

E. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.

F. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed, protect mock-up throughout construction, remove mock-up and clear area when directed to do so by Architect.

**2.03 TOLERANCES**

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

**2.04 TESTING AND INSPECTION**

A. See individual specification sections for testing and inspection required.

B. Testing Agency Duties:
   1. Test samples of mixes submitted by Contractor.
   2. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
   3. Perform specified sampling and testing of products in accordance with specified standards.
   4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
   5. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
   6. Perform additional tests and inspections required by Architect.
   7. Submit reports of all tests/inspections specified.

C. Limits on Testing/Inspection Agency Authority:
   1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
   2. Agency may not approve or accept any portion of the Work.
   3. Agency may not assume any duties of Contractor.

4. Agency has no authority to stop the Work.

D. Contractor Responsibilities:
   1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
   2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
   3. Provide incidental labor and facilities:
      a. To provide access to Work to be tested/inspected.
      b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
      c. To facilitate tests/inspections.
      d. To provide storage and curing of test samples.
   4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
   5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
   6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

E. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.

F. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

**2.05 DEFECT ASSESSMENT**

A. Replace Work or portions of the Work not complying with specified requirements.

B. If, in the opinion of Architect, it is not practical to remove and replace the work, Architect will direct an appropriate remedy or adjust payment.

**END OF SECTION**

**SECTION 01 4533**
**CODE-REQUIRED SPECIAL INSPECTIONS AND PROCEDURES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Code-required special inspections.

B. Testing services incidental to special inspections.

C. Submittals.

### 1.02 RELATED REQUIREMENTS

A. Document 00 3100 - Available Project Information: Soil investigation data.

B. Section 01 3000 - Administrative Requirements: Submittal procedures.

C. Section 01 4000 - Quality Requirements.

### 1.03 DEFINITIONS

A. Code or Building Code: ICC (IBC), International Building Code, Most Recent Edition Adopted Including All Applicable Amendments and Supplements and specifically, Chapter 17 - Special Inspections and Tests.

B. Special Inspection:
   1. Special inspections are inspections and testing of materials, installation, fabrication, erection or placement of components and connections mandated by the State of New York that also require special expertise to ensure compliance with the approved Contract Documents and the referenced standards.
   2. Special inspections are separate from and independent of tests and inspections conducted by Owner or Contractor for the purposes of quality assurance and contract administration.

### 1.04 REFERENCE STANDARDS

A. ACI 318 - Building Code Requirements for Structural Concrete 2019 (Reapproved 2022).

B. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement 2022.

C. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field 2023.

D. ASTM C172/C172M - Standard Practice for Sampling Freshly Mixed Concrete 2017.

E. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction 2019.

F. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection 2021.

G. ASTM E2174 - Standard Practice for On-Site Inspection of Installed Firestop Systems 2020a.

H. ASTM E2393 - Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers 2020a.

I. AWS D1.1/D1.1M - Structural Welding Code - Steel 2020, with Errata (2023).

J. IAS AC89 - Accreditation Criteria for Testing Laboratories 2021.

K. IAS AC291 - Accreditation Criteria for Special Inspection Agencies AC291 2019.

L. ICC (IBC) - International Building Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

M. ICC (IBC)-2018 - International Building Code 2018.

N. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures 2022, with Errata.

**1.05 SUBMITTALS**

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Special Inspection Agency Qualifications: Prior to the start of work, the Special Inspection Agency is required to:
   1. Submit agency name, address, and telephone number, names of full time registered Engineer and responsible officer.
   2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
   3. Submit certification that Special Inspection Agency is acceptable to AHJ.

C. Testing Agency Qualifications: Prior to the start of work, the Testing Agency is required to:
   1. Submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
   2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.

D. Special Inspection Reports: After each special inspection, Special Inspector is required to promptly submit at least two copies of report; one to Architect and one to the AHJ.
   1. Include:
      a. Date issued.
      b. Project title and number.
      c. Name of Special Inspector.
      d. Date and time of special inspection.
      e. Identification of product and specifications section.
      f. Location in the Project.
      g. Type of special inspection.
      h. Date of special inspection.
      i. Results of special inspection.
      j. Compliance with Contract Documents.
   2. Final Special Inspection Report: Document special inspections and correction of discrepancies prior to the start of the work.

**1.06 SPECIAL INSPECTION AGENCY**

A. Owner will employ services of a Special Inspection Agency to perform inspections and associated testing and sampling in accordance with ASTM E329 and required by the building code.

B. Employment of agency in no way relieves Contractor of obligation to perform work in accordance with requirements of Contract Documents.

**1.07 TESTING AND INSPECTION AGENCIES**

A. Owner may employ services of an independent testing agency to perform additional testing and sampling associated with special inspections but not required by the building code.

B. Employment of agency in no way relieves Contractor of obligation to perform work in accordance with requirements of Contract Documents.

**1.08 QUALITY ASSURANCE**

A. Special Inspection Agency Qualifications:

1. Independent firm specializing in performing testing and inspections of the type specified in this section.
2. Accredited by IAS according to IAS AC291.

B. Testing Agency Qualifications:
1. Independent firm specializing in performing testing and inspections of the type specified in this section.
2. Accredited by IAS according to IAS AC89.

C. Copies of Documents at Project Site: Maintain at the project site a copy of each referenced document.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 SCHEDULE OF SPECIAL INSPECTIONS, GENERAL**

A. Frequency of Special Inspections: Special Inspections are indicated as continuous or periodic.
1. Continuous Special Inspection: Special Inspection Agency is required to be present in the area where the work is being performed and observe the work at all times the work is in progress.
2. Periodic Special Inspection: Special Inspection Agency is required to be present in the area where work is being performed and observe the work part-time or intermittently and at the completion of the work.

**3.02 SPECIAL INSPECTIONS FOR CONCRETE CONSTRUCTION**

A. Reinforcement, Including Verification of Placement: Verify compliance with ACI 318, Chapters 20, 25.2, 25.3, 26.6.1-26.6.3; periodic.

B. Reinforcing Steel, Including Placement: Verify compliance with approved Contract Documents and ACI 318, Sections 3.5 and 7.1 through 7.7; periodic.

C. Anchors Cast in Concrete: Verify compliance with ACI 318; periodic.

D. Anchors Post-Installed in Hardened Concrete: Verify compliance with ACI 318.

E. Design Mix: Verify plastic concrete complies with the design mix in approved Contract Documents and with ACI 318, Chapter 19, 16.4.3, 26.4.4; periodic.

F. Concrete Sampling Concurrent with Strength Test Sampling: Each time fresh concrete is sampled for strength tests, verify compliance with ASTM C172/C172M, ASTM C31/C31M and ACI 318, Chapter 26.5, 26.12, and record the following, continuous:
1. Slump.
2. Air content.
3. Temperature of concrete.

G. Specified Curing Temperature and Techniques: Verify compliance with ACI 318, Chapter 26.5.3 through 26.5.5; periodic.

H. Formwork Shape, Location and Dimensions: Verify compliance with approved Contract Documents and ACI 318, Chapter 26.11.1.2(b); periodic.

**3.03 SPECIAL INSPECTIONS FOR MASONRY CONSTRUCTION**

A. Masonry Structures Subject to Special Inspection:
1. Masonry construction when required by the quality assurance program of TMS 402/602.
2. Empirically designed masonry, glass unit masonry and masonry veneer in structures designated as "essential facilities".
3. Engineered masonry in structures classified as "low hazard..." and "substantial hazard to human life in the event of failure".

B. Verify each item below complies with approved Contract Documents and the applicable articles of TMS 402/602.
   1. Inspections and Approvals:
      a. Verify compliance with the required inspection provisions of the approved Contract Documents; periodic.
      b. Verify approval of submittals required by Contract Documents; periodic.
   2. Compressive Strength of Masonry: Verify compressive strength of masonry units prior to start of construction unless specifically exempted by code; periodic.
   3. Slump Flow and Visual Stability Index (VSI): Verify compliance as self consolidating grout arrives on site; continuous.
   4. Joints and Accessories: When masonry construction begins, verify:
      a. Proportions of site prepared mortar; periodic.
      b. Construction of mortar joints; periodic.
      c. Location of reinforcement, connectors, prestressing tendons, anchorages, etc; periodic.
   5. Structural Elements, Joints, Anchors, Protection: During masonry construction, verify:
      a. Size and location of structural elements; periodic.
      b. Type, size and location of anchors, including anchorage of masonry to structural members, frames or other construction; periodic.
      c. Size, grade and type of reinforcement, anchor bolts and prestressing tendons and anchorages; periodic.
   6. Grouting Preparation: Prior to grouting, verify:
      a. Grout space is clean; periodic.
      b. Correct placement of reinforcing, connectors, prestressing tendons and anchorages; periodic.
      c. Correctly proportioned site prepared grouts and prestressing grout for bonded tendons; periodic.
      d. Correctly constructed mortar joints; periodic.

**3.04 SPECIAL INSPECTIONS FOR SOILS**

A. Materials and Placement: Verify each item below complies with approved construction documents and approved geotechnical report.
   1. Design bearing capacity of material below shallow foundations; periodic.
   2. Design depth of excavations and suitability of material at bottom of excavations; periodic.
   3. Materials, densities, lift thicknesses; placement and compaction of backfill: continuous.
   4. Subgrade, prior to placement of compacted fill verify proper preparation; periodic.

B. Testing: Classify and test excavated material; periodic.

**3.05 SPECIAL INSPECTIONS FOR FIRE RESISTANT PENETRATIONS AND JOINTS**

A. Verify penetration firestops in accordance with ASTM E2174.

B. Verify fire resistant joints in accordance with ASTM E2393.

**3.06 SPECIAL INSPECTIONS FOR WIND RESISTANCE**

A. Wind Resisting Components:
   1. Roof covering, roof deck, and floor framing connections; periodic.
   2. Exterior wall covering and wall connections to roof and floor diaphragms and framing; periodic.

**3.07 SPECIAL INSPECTION AGENCY DUTIES AND RESPONSIBILITIES**

A. Special Inspection Agency shall:
   1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.

2. Perform specified sampling and testing of products in accordance with specified reference standards.
3. Ascertain compliance of materials and products with requirements of Contract Documents.
4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of work or products.
5. Perform additional tests and inspections required by Architect.
6. Submit reports of all tests or inspections specified.

B. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.

C. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

**3.08 TESTING AGENCY DUTIES AND RESPONSIBILITIES**

A. Testing Agency Duties:
1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
2. Perform specified sampling and testing of products in accordance with specified standards.
3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of work or products.
5. Perform additional tests and inspections required by Architect.
6. Submit reports of all tests or inspections specified.

B. Limits on Testing or Inspection Agency Authority:
1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Agency may not approve or accept any portion of the work.
3. Agency may not assume any duties of Contractor.
4. Agency has no authority to stop the work.

C. On instructions by Architect, perform re-testing required because of non-compliance with specified requirements, using the same agency.

D. Contractor will pay for re-testing required because of non-compliance with specified requirements.

**3.09 CONTRACTOR DUTIES AND RESPONSIBILITIES**

A. Contractor Responsibilities, General:
1. Deliver to agency at designated location, adequate samples of materials for special inspections that require material verification.
2. Cooperate with agency and laboratory personnel; provide access to approved documents at project site, to the work, to manufacturers' facilities, and to fabricators' facilities.
3. Provide incidental labor and facilities:
   a. To provide access to work to be tested or inspected.
   b. To obtain and handle samples at the site or at source of Products to be tested or inspected.
   c. To facilitate tests or inspections.
   d. To provide storage and curing of test samples.
4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing or inspection services.
5. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

B. Contractor Responsibilities, Wind Force-Resisting System and Wind Force-Resisting Component: Submit written statement of responsibility for each item listed in the Statement of Special Inspections and Owner prior to starting work. Statement of responsibility shall acknowledge awareness of special construction requirements and other requirements listed.

**END OF SECTION**

**SECTION 01 50 00**
**TEMPORARY FACILITIES AND CONTROLS**

## PART 1 GENERAL

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions of the Contract for Construction 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 for each of the projects; grouped facility or single facility.

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 "Submittal Procedures" for procedures for submitting copies of implementation and termination schedule and utility reports.
   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, exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

### 1.4 USE CHARGES

A. Use Owner's existing utilities at no additional or change in contract sum.

B. Water Service: The **Plumbing Contractor (PC)** shall provide connection to Owner's existing water system as available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations using backflow preventer. Removal by same.

C. Electric Power Service: The **Electrical Contractor (EC)** shall provide power from the Owner's existing system as available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations. Removal by same. Exceptions as follows:

   1. The EC is responsible for electrical service work which involves the relocation of existing electrical and communications services from Route 209 to the building complex. This work should be thoroughly prepared for in the late spring and early summer and the switchover should take place as early as possible in July. This work must be carefully coordinated with the Owner and SC and all other Prime Contractors must be fully informed regarding any interruptions in electrical power. Power and communication outages should be designed to be as short as possible. During the power outage, the Owner will operate the building on emergency generator power and the Owner will assume the cost of fuel for the existing emergency generator. However, if the existing emergency power capacity is not adequate, the EC is responsible to ensure that other Prime Contractors and custodial staff have access to adequate power to perform their work during the shutdown, including, if necessary, the provision of temporary panels, portable power outlet boxes and/or portable generators and fuel as required to power equipment, tools and interior lighting. The EC is also responsible for communication with utilities and service providers as necessary to coordinate the service shutdown and switchover, and the Owner will assist with this communication as needed.

D. Each Contractor and their Subcontractors shall take measures to conserve water, electrical consumption and use of utilities.

**1.5 SUBMITTALS**

A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

**1.6 QUALITY ASSURANCE**

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

**1.7 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.

**PART 2 - PRODUCTS**

**2.1 MATERIALS**

A. Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.76-mm-) thick, galvanized steel, chain- link fabric fencing; minimum 8 feet (2.4 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide 8’ dust screen along all fencing.

B. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 9-gauge, galvanized steel, chain-link fabric fencing; minimum 8 feet (2.4 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide galvanized steel bases for supporting posts. Provide 8’ dust screen along all fencing.

C. Lumber and Plywood: Comply with requirements in Division 06 Section "Miscellaneous Rough Carpentry."

D. Gypsum Board: Minimum 5/8 inch (12.7 mm) thick by 48 inches (1219 mm) wide by maximum available lengths; fire rated-type panels with tapered edges. Comply with ASTM C 36/C 36M.

E. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

F. Paint: Comply with requirements in Division 09 painting Sections.

**2.2 TEMPORARY FACILITIES**

A. Field Offices: Prefabricated units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

B. Owner/Construction Manager (CM)/Architect Field Office: The **Site Contractor (SC)** shall furnish and equip a field office trailer at Port Jervis Middle School / High School as follows:

1. Provide 10’x 44’ Office by Williams Scotsman for use by Owner/Construction Manager/Architect personnel engaged in construction activities. The field office trailer must have toilet facilities. The SC needs to maintain/service the toilet at Owner/CM/Architect trailer. Toilet service shall be adequate for 4 individuals daily at the trailer and may require

service twice a week. The trailer location will be as per the CIP or as otherwise directed by the Owner and CM.

2. All windows shall have operational blinds.
3. The trailer shall have exterior lighting.
4. Provide (1) telephone line with caller ID, waiting and call forwarding services.
5. Provide the following new equipment in the quantities shown in parentheses (). Equipment shall become the property, excluding the Multifunction Printer, of the Owner at the end of the project:
    (1) Plan Table (6'Lx4'W)
    (1) May-line Pivot Wall Rack with 24 Racks (Installation by GC) or standing type.
    (2) **Dell Laptop Computers with peripherals** to be provided for use by the Construction Management staff. Exact specifications as follows:

**END OF SECTION**

| Category | Description | Code | SKU |
|---|---|---|---|
| Base | Dell Latitude 5440 XCTO Base | GY5GDZL | [210-BFZY] |
| Processor | 13th Gen Intel® Core™ i5-1345U, vPro® (12 MB cache, 10 cores, 12 threads, up to 4.70 GHz Turbo) | GWV7K40 | [379-BFBR] |
| Operating System | Windows 11 Pro, English, Brazilian Portuguese, French, Spanish | G01OVWE | [619-ARSB] |
| Office Productivity Software | No Microsoft Office License included | GC7OFJV | [658-BCSB] |
| Base Options | Intel 13th Generation Core i5-1345U vPro,Intel Integrated Graphics,TBT4 | G365WNX | [338-CHFP] |
| Intel Responsiveness Technologies | Intel® Rapid Storage Technology Driver | GYMIZO6 | [409-BCWR] |
| PalmRest | Single Pointing, No Palmrest Security Options | GH1IQAG | [346-BINY] |
| Systems Management | Intel vPro Management Disabled | GIVK1ZW | [631-ADPW] |
| Memory | 16 GB, 1 x 16 GB, DDR4, 3200 MT/s, Non-ECC, single-channel | GUW12AB | [370-AFVP] |
| Storage | 512 GB, M.2 2230, PCIe NVMe, SSD, Class 35 | GA3NW4O | [400-BOLI] |
| Display | 14.0" FHD (1920x1080) Non-Touch, AG, IPS, 250 nits, FHD Cam, WLAN | G6KY18G | [391-BHDU] |
| Keyboard | English US backlit keyboard, 79-key | GNJ8GDK | [583-BHCH] |
| Mouse | No Mouse | G8043UZ | [570-AADK] |
| Wireless Driver | Intel® AX211, 2x2, 802.11ax, MU-MIMO Driver, Bluetooth | G2EYP67 | [555-BJFN] |
| Wireless | Intel® Wi-Fi 6E AX211, 2x2, 802.11ax, Bluetooth® wireless card | GL03PXW | [555-BHHU] |
| Mobile Broadband | No Mobile Broadband Card | GR957IY | [556-BBCD] |
| Primary Battery | 3 Cell, 54 Wh, ExpressCharge™, ExpressCharge™ Boost capable | GFB63PN | [451-BDBL] |
| AC Adapter | 65W AC adapter, USB Type-C, TCO Gen9 compliant | GI417VR | [492-BDHS] |
| Security Software | No anti-virus software | GD4K19S | [650-AAAM] |
| Operating System Recovery Options | OS-Windows Media Not Included | GLA9OQ1 | [620-AALW] |
| Power Cord | E4 Power Cord 1M for US | GC90V4B | [537-BBDO] |
| Setup and Features Guides | Latitude 5440 Quick Start Guide | GJHB0SN | [340-DDHM] |
| Resource Media | No Resource USB Media | G5KFAU6 | [430-XXYG] |
| Documentation | Safety/Environment and Regulatory Guide (English/French Multi-Language) | G7RB0GY | [340-AGIK] |
| ENERGY STAR | ENERGY STAR Qualified | GFSJ2Q8 | [387-BBPC] |
| FGA Module | No FGA | NOFGA | [817-BBBB] |
| Non-Microsoft Application Software | Dell Additional Software | GX3QS7G | [658-BFQB] |

| | | | |
|---|---|---|---|
| Packaging | Mix Model 15W CPU + UMA + 65W ADPT | G204BVG | [340-DKTG] |
| Processor Label | Intel® Core™ i5 non-vPro Processor Label | G7PMQZT | [389-DXDU] |
| Transportation from ODM to region | Standard Shipment (VS) | G1IR983 | [800-BBQK] |
| EAN POD label | No UPC Label | G8WGTYN | [389-BCGW] |
| Chassis Options | Latitude 5440 Bottom Door (Big Door), Intel 13th Gen U-Series CPU | G38UZIS | [321-BJTH] |
| EPEAT 2018 | EPEAT 2018 Registered (Gold) | GBU8CHM | [379-BDZB] |
| Windows AutoPilot | No AutoPilot | GYEO2AP | [340-CKSZ] |
| Camera | FHD RGB Camera w/ Mic | GZO4IC3 | [319-BBJT] |
| Additional Opticals | No Removable CD/DVD Drive | GDCPVR0 | [429-AATO] |
| Service | Mail In Service, 12 Month(s) | GCLIK9P | [709-BBRC] |
| Extended Service | ProSupport Next Business Day Onsite with In-Region HW-SW Support, 36 Month(s) | GCBH3WQ | [199-BIQI] [199-BIQJ] |

(1) Laser color multifunction printer/copier/fax/scanner with 8’1/2x11 and 11x17 paper trays with network capability by Ricoh or equal, (provide printer cartridge and paper supplies for the project duration). Include 24-hour on-call service for the project duration. (It is assumed that this will be rented equipment and will be returned to the rental equipment provider at the time of demobilization of the field office trailer.)
(2) 4-drawer lateral file cabinet, heavy duty.
(3) Wall-mounted shelf (6’x14”) Installation by SC.
(4) Tack boards, 36” x 48”, installation by SC.
(2) Built-in desks (66"W x 30"D x 29-1/2"H).
(3) Tempur-Pedic mesh back fabric task chair, black (TP-7000-COAL-DS).
(2) Wireless telephones with speakers and voicemail capability.
(1) High speed internet service with wireless router and ethernet switch. **This internet service shall be independent of the Owner’s internet service so that it will not be affected by the communication service shutdown.**
(1) Large trash container and (2) medium trash containers (provide trash bags for project duration).
(2) Conference table (30"W x 72"L x 29"H).
(10) Vinyl-padded folding chairs.
(1) Cold/Hot water dispenser (provide water delivery service for project duration).
(1) 3.6 cubic foot refrigerator.
(1) 0.7 cubic foot microwave oven.
(1) First aid kit - Global Industrial First Aid Kit, 75-100 person, ANSI compliant, 3-shelf steel cabinet, Model No. T97761296A, installed by SC.

6. Packaged HVAC equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg. F (20 to 22 deg. C), integral to field office trailer.
7. Lighting fixtures capable of maintaining average illumination of 20 fc (215 lx) at desk height.
8. Owner/CM field office shall be secured and be provided with trailer skirting.
9. Owner/CM field office to be swept and mopped and toilet facilities sanitized weekly on a schedule coordinated with the CM.
10. Provide security bars at doors and security screens at all windows.
11. Provide stairs at each door.
12. Provide two (2) heavy duty master locks with four (4) keys each, turn keys over to CM.
13. Provide four-inch to six-inch (4” – 6”) gravel base at entire field office trailer area as per

CIP and CM direction.

14. Field office trailer/staging area shall be of the size indicated in the CIP.
15. Field office trailer/staging area shall be enclosed by temporary fencing with the gate size as indicated on the CIP, and chains and locks provided. Provide keys to the Owner and CM. See Subparagraphs 2.1.A, 2.1.B, and 3.4.
16. Field office trailer/staging area shall be prepared as follows:

(1) Remove existing topsoil as necessary and stockpile per CIP or remove from site.
(2) Install filter fabric material and 4" – 6" gravel base, compacted.

17. **Field office trailer/staging area and field office trailer shall be installed at the beginning of mobilization by the SC, during the week of April 1, 2024, per the Milestone Schedule.**
18. At end of project, following disconnection and removal of trailer(s) and other equipment:
    (1) Remove temporary fencing.
    (2) Remove and dispose of gravel and filter fabric.
    (3) Prepare ground for installation of new topsoil to depth of 6", install grass seed and hay. Alternatively, sod may be installed.
    (4) Provide temporary watering as needed until grass is growing well or the new sod is rooted.

C. The **EC** shall provide power to the Owner/CM/Architect field office trailer by providing and installing connections to the Owner's existing electrical infrastructure. The EC is responsible for performing a site walk through prior to the SC creating the field office trailer/staging area to determine how best to provide this temporary power connection. **The EC shall ensure that the power connection will remain energized when the complex is on emergency generator power OR provide for an adequately sized generator and fuel to power field office trailer during electrical service shutdown and switchover.** Coordinate with the Owner. The connections will be removed at the time of demobilization of the field office trailer. The EC shall include this material and labor cost in his bid.

D. The Owner/CM/Architect field office trailer shall be located per the CIP or as otherwise directed by the CM and Owner.

E. Staging and material storage areas: The **General Construction Contractor (GC)** shall provide temporary fencing per specification to completely enclose any and all staging and material storage areas **for interior work**. The **SC** shall provide temporary fencing per specification to completely enclose any and all staging and material storage areas **for site work**. The GC and SC shall coordinate to determine a logical delineation of staging areas for interior and site work, with input from the Owner and CM. GC/SC to coordinate with all prime contractors as needed for quantity of fencing, number and size of gates, etc. Location of staging and material storage areas per CIP or as otherwise directed by Owner and CM. The **SC** shall also provide temporary fencing per specification at the **boundaries of the site work area per the CIP**. At conclusion of project, GC/SC to remove all temporary fencing and completely restore existing site, including but not limited to regrading as needed, adding topsoil, grass seed and hay, repairing damaged existing site asphalt and concrete and repairing any damaged existing site furniture, signage, etc.

1. Store combustible materials apart from existing buildings.

## 2.3 EQUIPMENT

A. Fire Extinguishers: Each Contractor shall provide 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 the permanent HVAC system, the **GC** shall provide temporary heating as may be required. The **GC** shall submit to the Owner the equipment to be used for approval prior to the commencement of work.

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 13 rating 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 the General Conditions and other Division 01 sections.

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: The **SC** provides temporary utilities to remove effluent lawfully.

C. Water Service: The **PC** shall use the Owner's existing water service facilities if facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
   1. Where installations below an outlet might be damaged by spillage or leakage, provide a drip pan of suitable size to minimize water damage. Drain accumulated water promptly from pans.

D. SANITARY FACILITIES: The **GC** shall provide temporary toilets, washing facilities, and drinking water for the use of construction **personnel performing interior work**. The **SC** shall provide temporary toilets, washing facilities, and drinking water for the use of construction **personnel performing site work**. Comply with authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities. Minimum one unit per 10 workers and separate unit for women with lock as it applies to each area of work (interior or site). Coordinate with other prime contractors to determine the number of units needed. The location of the temporary toilets must be submitted to the Owner for approval prior to the commencement of work.

E. HEATING: The **GC** shall provide temporary heating required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

F. VENTILATION AND HUMIDITY CONTROL: **Each Contractor** shall 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: The **EC** shall make use of the Owner's existing electric power service, as long as equipment is maintained in a condition acceptable to the Owner. As needed, the **EC** shall provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
   1. Connect temporary service to Owner's existing power source, as directed by Owner or Construction Manager.
      a) EC is responsible for all labor and miscellaneous material (exclusive of breakers and starters) required for temporary connection and disconnection of temporary electrical power panels and/or equipment which requires a hard-wired connection to an electrical panel, and which is supplied and utilized by other prime contractors (or their subcontractors) to perform their work.
      b) See also Subparagraph 1.4.C.1.

H. LIGHTING: The **EC** shall 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 the entire system.
   2. Where corridor ceilings are indicated to be removed, relocate and re-support existing lighting and ceiling-mounted devices (fire alarm, cameras, security, etc.) as required in coordination with the GC, Mechanical Contractor (MC), PC, and Food Service Equipment Contractor (FS) as indicated on electrical drawings, refer to drawing notes.
   3. See also Subparagraph 1.4.C.1.

## 3.3 SUPPORT FACILITIES INSTALLATION

A. General: All prime contractors shall comply with the following:
   1. Provide incombustible construction for offices, shops, and sheds located within construction area or within 30 feet (9 m) 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 the Owner.

B. Temporary Paved Areas: The **SC** shall construct and maintain temporary paved areas adequate for construction operations. Locate temporary paved areas within construction limits indicated on Drawings.
   1. 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.

D. Parking: Use designated areas of Owner's on-site parking for some construction personnel.
   1. The Owner will designate a minimum of 2 spaces and may designate more when the facility is not being used.
   2. On-street parking arrangements for other spaces are the responsibility of each Contract.

E. Project Identification and Temporary Signs: Provide Project identification and other signs. Install signs where indicated to inform public and individuals seeking entrance to Project. Unauthorized signs are not permitted. Installation and removal by Contractor at no additional cost to Owner.
   1. Provide temporary, directional signs for construction personnel and visitors.
   2. Maintain and touchup signs so they are legible always.

F. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. **GC** shall provide containers **for interior work** and the **SC** shall provide containers **for site work**. See also Specification Section 01 10 00, Subparagraphs 1.06.A.5 and 1.06.E.2. Comply with requirements specified elsewhere in Division 01 specifications and with requirements of authorities having jurisdiction.
   1. Comply with Division 01 Section "Multiple Contract Summary" for progress cleaning requirements.

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: Use of Owner's existing elevators will not be permitted.

I. Existing Stair Usage: Use of at least one of Owner's existing stairs will be permitted if stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.
   1. Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If, despite such protection, stairs become damaged, restore damaged areas 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.
   1. Comply with requirements specified elsewhere in Division 01 specifications and with requirements of authorities having jurisdiction.

B. 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 the site except by entrance gates.
   1. Extent of Fence: Provide and install temporary fencing as required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
      a) See Subparagraph 2.2.E and the CIP.
   2. Maintain security by limiting the number of keys and restricting distribution to authorized personnel. Provide Owner and Construction Manager each with one set of keys.

C. 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.

D. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

E. 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 is needed and permanent enclosure is not complete, insulate temporary enclosures.

F. 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. The **GC** shall provide and install temporary partitions and separation barriers to separate interior work performed before the end of the school year as indicated in the Milestone Schedule and on the CIP. GC to install temporary partitions and separation barriers as directed by the Owner and CM.
2. Construct dustproof and fire rated partitions with 5/8" type 'x' gypsum wallboard with joints taped on both sides. Paint the occupied side of partition.
3. Construct dustproof partitions with 1 layer of 4-mil (0.09-mm) polyethylene sheet on each side with zipper openings. Cover floor with 1 layer of 4-mil (0.09-mm) polyethylene sheet, extending sheets 18 inches (460 mm) up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant plywood.
4. Sound Insulate partitions to provide noise protection to occupied areas.
5. Seal joints and perimeter. Equip partitions with dustproof hollow metal doors and frames with security locks.
6. Protect air-handling equipment, heating equipment, casework, and carpeting.
7. Weather strip openings.
8. Provide walk-off mats at each entrance through temporary partition.
9. Refer to Construction Implementation Plans per building for specific locations.

G. 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. Prohibit smoking in construction areas.
2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

## 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, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

C. Termination and Removal: Remove each temporary facility when the need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. 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. The Owner reserves the right to take possession of Project identification signs.
2. Remove temporary paving not intended for or acceptable for integration into permanent paving. Replace damaged street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
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."

D. Site Restoration: The **GC** shall restore all areas disturbed by installation of staging areas for interior work to their original condition. The **SC** shall restore all areas disturbed by installation of staging areas for site work and the field office trailer/staging area to their original condition.
1. Restore grass areas.

2. Replace damaged asphalt paving.
3. Replace damaged asphalt or concrete walkways.
4. Replace landscaping, site furniture, and permanent signage that has been damaged.

**END OF SECTION**

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**SECTION 01 5500**
**VEHICULAR ACCESS AND PARKING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Access roads.

B. Parking.

C. Existing pavements and parking areas.

D. Permanent pavements and parking facilities.

E. Construction parking controls.

F. Flag persons.

G. Maintenance.

H. Removal, repair.

I. Mud from site vehicles.

### 1.02 RELATED REQUIREMENTS

A. Section 31 2200 - Grading: Specifications for earthwork and paving bases.

## PART 2 PRODUCTS

### 2.01 MATERIALS

A. Materials for Permanent Construction: As specified in product specification sections, including earthwork, paving base, and topping.

## PART 3 EXECUTION

### 3.01 PREPARATION

### 3.02 ACCESS ROADS

A. Use of existing on-site streets and driveways for construction traffic is permitted.

B. Tracked vehicles not allowed on paved areas.

C. Provide unimpeded access for emergency vehicles. Maintain 20 foot width driveways with turning space between and around combustible materials.

D. Provide and maintain access to fire hydrants free of obstructions.

### 3.03 PARKING

A. Use of designated areas of existing parking facilities by construction personnel is permitted.

B. Locate as indicated.

C. Locate as approved by Construction Manager and Architect.

### 3.04 PERMANENT PAVEMENTS AND PARKING FACILITIES

A. Prior to Substantial Completion the base for permanent roads and parking areas may be used for construction traffic.

B. Avoid traffic loading beyond paving design capacity. Tracked vehicles not allowed.

### 3.05 CONSTRUCTION PARKING CONTROL

A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and Owner's operations.

B. Monitor parking of construction personnel's vehicles in existing facilities. Maintain vehicular access to and through parking areas.

C. Prevent parking on or adjacent to access roads or in non-designated areas.

### 3.06 FLAG PERSONS

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

### 3.07 MAINTENANCE

A. Maintain traffic and parking areas in a sound condition free of excavated material, construction equipment, products, mud, snow, and ice.

B. Maintain existing paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

### 3.08 REMOVAL, REPAIR

A. Repair existing facilities damaged by use, to original condition.

B. Repair damage caused by installation.

### 3.09 MUD FROM SITE VEHICLES

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

**END OF SECTION**

**SECTION 01 5713**
**EROSION AND SEDIMENT CONTROL**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Prevention of erosion due to construction activities.

B. Prevention of sedimentation of waterways, open drainage ways, and storm and sanitary sewers due to construction activities.

C. Measures used for erosion and sediment control, including temporary mulching, permanent restoration, berms, dikes, silt fences, straw wattles, erosion control blankets, inlet protection measures, check dams and other erosion and sediment control methods.

D. Restoration of areas eroded due to insufficient preventive measures.

E. Compensation of Owner for fines levied by authorities having jurisdiction due to non-compliance by Contractor.

### 1.02 RELATED REQUIREMENTS

A. Section 31 2200 - Grading.

B. Section 31 2316 - Excavation.

C. Section 32 9200 - Lawns and Grasses.

### 1.03 REFERENCE STANDARDS

A. New York Standards and Specifications for Erosion and Sediment Control (The Blue Book).

B. New York State Stormwater Management Design Manual.

C. New York State Department of Transportation, Standard Specifications.

### 1.04 PERFORMANCE REQUIREMENTS

A. Also comply with all more stringent requirements of State of New York Erosion and Sedimentation Control Manual.

B. Do not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.

C. Timing: Put preventive measures in place as soon as possible after disturbance of surface cover and before precipitation occurs.

D. Storm Water Runoff: Control increased storm water runoff due to disturbance of surface cover due to construction activities for this project.
   1. Prevent runoff into storm and sanitary sewer systems, including open drainage channels, in excess of actual capacity or amount allowed by authorities having jurisdiction, whichever is less.

E. Erosion On Site: Minimize wind, water, and vehicular erosion of soil on project site due to construction activities for this project.
   1. Control movement of sediment and soil from temporary stockpiles of soil.
   2. Prevent development of ruts due to equipment and vehicular traffic.
   3. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.

F. Erosion Off Site: Prevent erosion of soil and deposition of sediment on other properties caused by water leaving the project site due to construction activities for this project.
   1. Prevent windblown soil from leaving the project site.
   2. Prevent tracking of mud onto public roads outside site.
   3. Prevent mud and sediment from flowing onto sidewalks and pavements.

4. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.

G. Sedimentation of Waterways On Site: Prevent sedimentation of waterways on the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
   1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.
   2. If sediment basins are used as temporary preventive measures, pump dry and remove deposited sediment after each storm.

H. Sedimentation of Waterways Off Site: Prevent sedimentation of waterways off the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
   1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.

I. Maintenance: Maintain temporary preventive measures until permanent measures have been established.

## 1.05 SUBMITTALS

A. See Section 01 3300 - Submittal Procedures for submittal process.

B. Certificate: Mill certificate for silt fence fabric attesting that fabric and factory seams comply with specified requirements, signed by legally authorized official of manufacturer; indicate actual minimum average roll values; identify fabric by roll identification numbers.

# PART 2 PRODUCTS

## 2.01 FENCING

A. Silt fence fabric shall meet the following:

| Fabric Properties | Minimum Acceptable Value | Test Method |
|---|---|---|
| Grab Tensile Strength (lbs) | 90 | ASTM D1682 |
| Elongation at Failure (%) | 50 | ASTM D1682 |
| Mullen Burst Strength (psi) | 190 | ASTM D3786 |
| Puncture Strength (lbs) | 40 | ASTM D751 (modified) |
| Slurry Flow Rate (gal/min/sf) | 0.3 | |
| Equivalent Opening Size | 40-80 | US - Standard Sieve |
| Ultraviolet Radiation Stability (%) | 90 | ASTM G26 |

B. Fence Posts: The length shall be a minimum of 36 inch long. Wood posts shall be of sound quality hardwood with a minimum cross sectional area of 3 square inches. Steel posts shall be standard "T" or "U" section weighing not less than 1.0 pounds per linear foot.

C. Wire Fence: Wire fencing shall be a minimum 14-1/2 gage with a maximum 6 inch mesh opening.

## 2.02 EROSION CONTROL BLANKET

A. Erosion control blanket shall be composed of degradable material, composed primarily of processed natural organic material, manufactured or fabricated into rolls designed to reduce soil erosion.

B. Anchoring and adjacent roll overlap shall be in accordance with the manufacturer's recommendations.

C. Rough and final grading shall be completed prior to erosion control blanket installation.

D. Erosion control blanket shall be installed on steep slopes or in concentrated flow paths.

**2.03 TEMPORARY MULCHING**

A. Mulch shall consist of straw, free of undesirable seeds and course materials.

B. Mulch shall be applied at 100 pound per 1,000 square feet.

**2.04 STRAW WATTLES**

A. Wrapped straw logs with hardwood stakes as manufactured by North American Green or approved equal.

B. All materials within wattles shall be fully biodegradable.

**2.05 STABILIZED CONSTRUCTION ENTRANCE**

A. Constructed of geotextile fabric and stone of appropriate lenght and width at the entrance/exit point to the construction site.

**2.06 CATCH BASIN INLET PROTECTION**

A. Where required, constructed with perimeter sedimentation pool.

B. With permission of Engineer, may be constructed with silt fence, wattles or other approved techniques.

C. Stone shall be replaced as required or as directed by Engineer.

**2.07 CULVERT INLET PROTECTION**

A. Stone shall be replaced as required or as directed by Engineer.

**2.08 SOIL STOCKPILE**

A. Topsoil and subsoil stockpiles surrounded and protected with perimeter silt fencing, straw wattles, or other approved technique.

B. Engineer may order mulching and seeding of stockpiles.

**PART 3 EXECUTION**

**3.01 INSTALLATION**

A. Finish grading of all areas disturbed by trenching operations shall be completed within 14 days of pipe installation unless otherwise approved. No soil disturbed or exposed by this project shall be left unprotected for more than 14 days. Protection measures would include one or more of the erosion and sediment control measures described in this specification.

B. Schedule work to minimize soil erosion.

C. Construct erosion control features concurrently with other work to minimize area exposed to erosion.

D. In the event of conflict between these specifications and laws, rules, or regulations of Federal, State, or local agencies, the more restrictive shall apply.

E. The Engineer has the authority to limit the surface area of erodible earth material exposed and to direct the Contractor to provide immediate control measures to minimize damage to adjacent property and to minimize contamination of water resources.

F. Traffic-Bearing Aggregate Surface:
   1. Excavate minimum of 6 inches.
   2. Place geotextile fabric full width and length, with minimum 12 inch overlap at joints.
   3. Place and compact at least 6 inches of 1 1/2 to 3 1/2 inch diameter stone.

G. Silt Fences:
   1. Store and handle fabric in accordance with ASTM D4873/D4873M.

2. Where slope gradient is less than 3:1 or barriers will be in place less than 6 months, use nominal 16 inch high barriers with minimum 36 inch long posts spaced at 6 feet maximum, with fabric embedded at least 4 inches in ground.
3. Install with top of fabric at nominal height and embedment as specified.
4. Do not splice fabric width; minimize splices in fabric length; splice at post only, overlapping at least 18 inches, with extra post.
5. Fasten fabric to wood posts using one of the following:
    a. Four nails per post with 3/4 inch diameter flat or button head, 1 inch long, and 14 gage, 0.083 inch shank diameter.
    b. Five staples per post with at least 17 gage, 0.0453 inch wire, 3/4 inch crown width and 1/2 inch long legs.

H. Straw Bale Rows:
1. Install bales in continuous rows with ends butting tightly, with one bale at each end of row turned uphill.
2. Install bales so that bindings are not in contact with the ground.
3. Embed bales at least 4 inches in the ground.
4. Anchor bales with at least two stakes per bale, driven at least 18 inches into the ground; drive first stake in each bale toward the previously placed bale to force bales together.
5. Fill gaps between ends of bales with loose straw wedged tightly.
6. Place soil excavated for trench against bales on the upslope side of the row, compacted.

**3.02 MAINTENANCE**

A. Erosion and sediment control measures shall remain in place until the successful establishment of vegetation or other restoration on disturbed surfaces.

B. Inspect preventive measures weekly, within 24 hours after the end of any storm that produces 0.5 inches or more rainfall at the project site, and daily during prolonged rainfall.

C. Repair deficiencies immediately.

D. Silt Fences:
1. Promptly replace fabric that deteriorates unless need for fence has passed.
2. Remove silt deposits that exceed one-third of the height of the fence.
3. Repair fences that are undercut by runoff or otherwise damaged, whether by runoff or other causes.

E. Straw Bale Rows:
1. Promptly replace bales that fall apart or otherwise deteriorate unless need has passed.
2. Remove silt deposits that exceed one-half of the height of the bales.
3. Repair bale rows that are undercut by runoff or otherwise damaged, whether by runoff or other causes.

F. Clean out temporary sediment control structures weekly and relocate soil on site.

**3.03 CLEAN UP**

A. Remove temporary measures after permanent measures have been installed, unless permitted to remain by Architect or Engineer.

B. Clean out temporary sediment control structures that are to remain as permanent measures.

C. Where removal of temporary measures would leave exposed soil, shape surface to an acceptable grade and finish to match adjacent ground surfaces.

**END OF SECTION**

**SECTION 01 5721**
**INDOOR AIR QUALITY CONTROLS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Construction procedures to promote adequate indoor air quality after construction.

B. Building flush-out after construction and before occupancy.

C. Testing indoor air quality before commencement of construction; existing building areas only.

D. Testing indoor air quality after completion of construction.

### 1.02 PROJECT GOALS

A. Dust and Airborne Particulates: Prevent deposition of dust and other particulates in HVAC ducts and equipment.
   1. Cleaning of ductwork is not contemplated under this Contract.
   2. Contractor shall bear the cost of cleaning required due to failure to protect ducts and equipment from construction dust.
   3. Establish condition of existing ducts and equipment prior to start of alterations.

B. Airborne Contaminants: Procedures and products have been specified to minimize indoor air pollutants.
   1. Furnish products meeting the Specifications.
   2. Avoid construction practices that could result in contamination of installed products leading to indoor air pollution.

### 1.03 RELATED REQUIREMENTS

A. Section 01 3529.10 - Life Safety Requirements During School Construction.

B. Section 01 4000 - Quality Requirements: Testing and inspection services.

C. Section 23 0593 - Testing, Adjusting, and Balancing for HVAC.: Testing HVAC systems for proper air flow rates, adjustment of dampers and registers, and setting for equipment.

### 1.04 REFERENCE STANDARDS

A. ASHRAE Std 52.2 - Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size; 2012, with 2015 amendments.

B. ASTM D5197 - Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampler Methodology); 2009.

C. CAL (CDPH SM) - Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers; California Department of Public Health; v1.1, 2010.

D. EPA 625/R-96/010b - Compendium of Methods for Determination of Toxic Organic Compounds in Ambient Air; Jan-99.

E. SMACNA (OCC) - IAQ Guidelines for Occupied Buildings Under Construction; 2007.

### 1.05 DEFINITIONS

A. Adsorptive Materials: Gypsum board, acoustical ceiling tile and panels, carpet and carpet tile, fabrics, fibrous insulation, and other similar products.

B. Contaminants: Gases, vapors, regulated pollutants, airborne mold and mildew, and the like, as Specified.

C. Particulates: Dust, dirt, and other airborne solid matter.

D. Wet Work: Concrete plaster, coatings, and other products that emit water vapor or volatile organic compounds during installation, drying, or curing.

## 1.06 SUBMITTALS

A. See Section 01 3300 - Submittal Procedures, for submittal process.

B. Indoor Air Quality Management Plan: Describe in detail measures to be taken ot promote adequate indoor air quality upon completion; use SMACNA (OCC) as a guide.
   1. Submit not less than sixty (60) days before enclosure of building.
   2. Identify potential sources of odor and dust.
   3. Identify construction activities likely to produce odor or dust.
   4. Identify areas of project potentially affected, especially occupied areas.
   5. Evaluate potential problems by severity and describe methods of control.
   6. Describe construction ventilation to be provided, including type and duration of ventilation, use of permanent HVAC systems, types of filters and schedule for replacement of filters.
   7. Describe cleaning and dust control procedures.

C. Interior Finishes Installation Schedule: Identify each interior finish that either generates odors, moisture, or vapors or is susceptible ot adsorption of odors and vapors, and indicate air handling zone, sequence of application, and curing times.

D. Duct and Terminal Unit Inspection Report.

E. Air Contaminant Test Plan: Identify the following:
   1. Testing agency qualifications.
   2. Locations and scheduling of air sampling.
   3. Test procedures, in detail.
   4. Test Instruments and apparatus.
   5. Sampling Methods.

F. Air Contaminant Test Reports: Show the following:
   1. Location where each sample was taken, and time.
   2. Test values for each air sample; average the values of each set of three (3).
   3. HVAC operating conditions.
   4. Certification of test equipment calibration.
   5. Other conditions or discrepancies that might have influenced results.

## 1.07 QUALITY ASSURANCE

A. Testing and Inspection Agency Qualifications: Independent testing agency having a minimum of five (5) years experience in performing the types of testing Specified.

# PART 2 PRODUCTS

## 2.01 MATERIALS

A. Auxiliary Air Filters: MERV of 8, minimum, when tested in accordance with ASHRAE Std 52.2.

# PART 3 EXECUTION

## 3.01 CONSTRUCTION PROCEDURES

A. Prevent the absorption of moisture and humidity by adsorptive materials by:
   1. Sequencing the delivery of such materials so that they are not present in the building until Wet Work is completed and dry.
   2. Delivery and storage of such materials in fully sealed moisture-impermeable packaging.
   3. Provide sufficient ventilation for drying within reasonable time frame.

B. Begin construction ventilation when building is substantially enclosed.

C. If extremely dusty or dirty work must be conducted inside the building, isolate HVAC system from the Work Area for the duration; remove dust and dirt completely before restoring systems.

D. When working in a portion of an occupied building, prevent movement of air from construction area to occupied area.

E. HVAC equipment and ductwork may NOT be used for ventilation during construction:
   1. Provide temporary ventilation equivalent to 1-1/2 air changes per hour, minimum.
   2. Exhaust directly to outside.
   3. Seal HVAC air inlets and outlets immediately after duct installation.

F. Do not store construction materials or waste in mechanical or electrical rooms.

G. Prior to use of return air ductwork without intake filters, cleanup and remove dust and debris generated by construction activities.
   1. Inspect duct intakes, return air grilles, and terminal units for dust.
   2. Clean plenum spaces, including top sides of lay-in ceilings, outsides of ducts, topes of pipes, and conduit.
   3. Clean tops of doors and frames.
   4. Clean mechanical and electrical rooms, including tops of pipes, ducts, conduit, equipment, and supports.
   5. Clean return plenums of air handling units.
   6. Remove intake filters last, after cleaning is complete.

H. Do not perform DUSTY or DIRTY WORK after starting use of return air ducts without intake filters.

I. Use other relevant recommendations of SMACNA (OCC) for avoiding unnecessary contamination due to construction procedures.

**3.02 BUILDING FLUSH-OUT**

A. Contractor's Option: Either full continuous flush-out OR satisfactory air contaminant testing is required, not both.

B. Perform building flush-out before occupancy.

C. Do not start flush-out until:
   1. All construction is complete.
   2. HVAC systems have been tested, adjusted, and balanced for proper operation.
   3. Inspection of inside of return air ducts and terminal units confirms that cleaning is not necessary.
   4. New HVAC filtration media have been installed.

D. Building Flush-Out: Operate all ventilation systems at normal flow rates with 100 percent outside air until a total air volume of 14,000 cubic feet per square foot of floor area has been supplied.
   1. Obtain Owner's concurrence that construction is complete enough before beginning flush-out.
   2. Maintain interior temperature of at least 60 degrees F and interior relative humidity no higher than 60 percent.
   3. If additional construction involving materials that produce particulates or any of the Specified contaminants is conducted during flush-out, start flush-out over.

E. Install new HVAC filtration media after completion of flush-out and before occupancy or further testing.

**END OF SECTION**

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**SECTION 01 5813**
**TEMPORARY PROJECT SIGNAGE**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Project identification sign.

### 1.02 QUALITY ASSURANCE

A. Design sign and structure to withstand 50 miles/hr wind velocity.

B. Sign Painter: Experienced as a professional sign painter for minimum three years.

C. Finishes, Painting: Adequate to withstand weathering, fading, and chipping for duration of construction.

### 1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Shop Drawing: Show content, layout, lettering, color, foundation, structure, sizes and grades of members.

## PART 2 PRODUCTS

### 2.01 SIGN MATERIALS

A. Structure and Framing: New, wood, structurally adequate.

B. Sign Surfaces: Exterior grade plywood with medium density overlay, minimum 3/4 inch thick, standard large sizes to minimize joints.

C. Rough Hardware: Galvanized.

D. Paint and Primers: Exterior quality, two coats; sign background of white color.

E. Lettering: Exterior quality paint, contrasting colors.

F. Lettering: Pre-cut vinyl self-adhesive products, white.

### 2.02 PROJECT IDENTIFICATION SIGN

A. One painted sign of construction, design, and content indicated on drawings, location designated.

## PART 3 EXECUTION

### 3.01 INSTALLATION

A. Install project identification sign within 30 days after date fixed by Notice to Proceed.

B. Erect at designated location.

C. Erect supports and framing on secure foundation, rigidly braced and framed to resist wind loadings.

D. Install sign surface plumb and level, with butt joints. Anchor securely.

### 3.02 MAINTENANCE

A. Maintain signs and supports clean, repair deterioration and damage.

### 3.03 REMOVAL

A. Remove signs, framing, supports, and foundations at completion of Project and restore the area.

**END OF SECTION**

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**SECTION 01 6000**
**PRODUCT REQUIREMENTS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Re-use of existing products.

B. Transportation, handling, storage and protection.

C. Product option requirements.

D. Substitution limitations.

E. Procedures for Owner-supplied products.

F. Maintenance materials, including extra materials, spare parts, tools, and software.

### 1.02 RELATED REQUIREMENTS

A. Section 01 4000 - Quality Requirements: Product quality monitoring.

## PART 2 PRODUCTS

### 2.01 EXISTING PRODUCTS

A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents.

B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.

C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.

### 2.02 NEW PRODUCTS

A. Provide new products unless specifically required or permitted by Contract Documents.

B. See Section 01 4000 - Quality Requirements, for additional source quality control requirements.

C. Use of products having any of the following characteristics is not permitted:
   1. Made outside the United States, its territories, Canada, or Mexico.
   2. Made using or containing CFC's or HCFC's.
   3. Made of wood from newly cut old growth timber.
   4. Containing lead, cadmium, or asbestos.

### 2.03 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

### 2.04 MAINTENANCE MATERIALS

A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.

B. Deliver to Project site; obtain receipt prior to final payment.

## PART 3 EXECUTION

### 3.01 OWNER-SUPPLIED PRODUCTS

### 3.02 TRANSPORTATION AND HANDLING

A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.

B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.

C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

D. Transport and handle products in accordance with manufacturer's instructions.

E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.

H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

### 3.03 STORAGE AND PROTECTION

A. Provide protection of stored materials and products against theft, casualty, or deterioration.

B. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 01 7419.

C. Store and protect products in accordance with manufacturers' instructions.

D. Store with seals and labels intact and legible.

E. Arrange storage of materials and products to allow for visual inspection for the purpose of determination of quantities, amounts, and unit counts.

F. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.

G. For exterior storage of fabricated products, place on sloped supports above ground.

H. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.

I. Comply with manufacturer's warranty conditions, if any.

J. Do not store products directly on the ground.

K. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

L. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

M. Prevent contact with material that may cause corrosion, discoloration, or staining.

N. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

O. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**END OF SECTION**

**SECTION 01 6116**
**VOLATILE ORGANIC COMPOUND (VOC) CONTENT RESTRICTIONS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Requirements for Indoor-Emissions-Restricted products.

B. Requirements for VOC-Content-Restricted products.

C. Requirement for installer certification that they did not use any non-compliant products.

### 1.02 RELATED REQUIREMENTS

A. Section 01 3000 - Administrative Requirements: Submittal procedures.

### 1.03 DEFINITIONS

A. Indoor-Emissions-Restricted Products: All products in the following product categories, whether specified or not:

B. VOC-Content-Restricted Products: All products in the following product categories, whether specified or not:
   1. Interior paints and coatings applied on site.
   2. Interior adhesives and sealants applied on site, including flooring adhesives.

C. Interior of Building: Anywhere inside the exterior weather barrier.

D. Adhesives: All gunnable, trowelable, liquid-applied, and aerosol adhesives, whether specified or not; including flooring adhesives, resilient base adhesives, and pipe jointing adhesives.

E. Sealants: All gunnable, trowelable, and liquid-applied joint sealants and sealant primers, whether specified or not; including firestopping sealants and duct joint sealers.

F. Inherently Non-Emitting Materials: Products composed wholly of minerals or metals, unless they include organic-based surface coatings, binders, or sealants; and specifically the following:

### 1.04 REFERENCE STANDARDS

A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency current edition.

B. ASTM D3960 - Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings 2005 (Reapproved 2018).

C. CARB (SCM) - Suggested Control Measure for Architectural Coatings; California Air Resources Board 2020.

D. SCAQMD 1113 - Architectural Coatings 1977, with Amendment (2016).

E. SCAQMD 1168 - Adhesive and Sealant Applications 1989, with Amendment (2022).

### 1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: For each VOC-restricted product used in the project, submit evidence of compliance.

C. Installer Certifications Regarding Prohibited Content: Require each installer of any type of product (not just the products for which VOC restrictions are specified) to certify that either 1) no adhesives, joint sealants, paints, coatings, or composite wood or agrifiber products have been used in the installation of installer's products, or 2) that such products used comply with these requirements.

## 1.06 QUALITY ASSURANCE

A. VOC Content Test Method: 40 CFR 59, Subpart D (EPA Method 24), or ASTM D3960, unless otherwise indicated.
   1. Evidence of Compliance: Acceptable types of evidence are:
      a. Report of laboratory testing performed in accordance with requirements.

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

## PART 2 PRODUCTS

## 2.01 MATERIALS

A. VOC-Content-Restricted Products: VOC content not greater than required by the following:
   1. Adhesives, Including Flooring Adhesives: SCAQMD 1168 Rule.
   2. Joint Sealants: SCAQMD 1168 Rule.
   3. Paints and Coatings: Each color; most stringent of the following:
      a. 40 CFR 59, Subpart D.
      b. SCAQMD 1113 Rule.
      c. CARB (SCM).

## PART 3 EXECUTION

## 3.01 FIELD QUALITY CONTROL

A. Owner reserves the right to reject non-compliant products, whether installed or not, and require their removal and replacement with compliant products at no extra cost to Owner.

B. Additional costs to restore indoor air quality due to installation of non-compliant products will be borne by Contractor.

**END OF SECTION**

**SECTION 01 7000**
**EXECUTION AND CLOSEOUT REQUIREMENTS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Examination, preparation, and general installation procedures.

B. Requirements for alterations work, including selective demolition, _____.

C. Cutting and patching.

D. Surveying for laying out the work.

E. Cleaning and protection.

F. Starting of systems and equipment.

G. Demonstration and instruction of Owner personnel.

H. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

I. General requirements for maintenance service.

### 1.02 RELATED REQUIREMENTS

A. Section 01 1000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.

B. Section 01 4000 - Quality Requirements: Testing and inspection procedures.

C. Section 01 5000 - Temporary Facilities and Controls: Temporary exterior enclosures.

D. Section 01 5000 - Temporary Facilities and Controls: Temporary interior partitions.

E. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties, and bonds.

F. Section 01 7900 - Demonstration and Training: Demonstration of products and systems to be commissioned and where indicated in specific specification sections

G. Section 07 8400 - Firestopping.

### 1.03 REFERENCE STANDARDS

A. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations 2022, with Errata (2021).

### 1.04 QUALIFICATIONS

### 1.05 PROJECT CONDITIONS

A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

B. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.

C. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.

D. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.

E. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

### 1.06 COORDINATION

A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

B. Notify affected utility companies and comply with their requirements.

C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

F. Coordinate completion and clean-up of work of separate sections.

G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

## PART 2 PRODUCTS

### 2.01 PATCHING MATERIALS

A. New Materials: As specified in product sections; match existing products and work for patching and extending work.

B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 - Product Requirements.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.

C. Examine and verify specific conditions described in individual specification sections.

D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.

E. Verify that utility services are available, of the correct characteristics, and in the correct locations.

F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

### 3.02 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

**3.03 LAYING OUT THE WORK**

**3.04 GENERAL INSTALLATION REQUIREMENTS**

A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.

B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.

C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.

D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.

E. Make neat transitions between different surfaces, maintaining texture and appearance.

**3.05 ALTERATIONS**

A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
   1. Verify that construction and utility arrangements are as indicated.
   2. Report discrepancies to Architect before disturbing existing installation.
   3. Beginning of alterations work constitutes acceptance of existing conditions.

B. Remove existing work as indicated and as required to accomplish new work.
   1. Remove items indicated on drawings.
   2. Relocate items indicated on drawings.
   3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
   4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.

C. Services (Including but not limited to ): Remove, relocate, and extend existing systems to accommodate new construction.
   1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
   2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
   3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
      a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
      b. Provide temporary connections as required to maintain existing systems in service.
   4. Verify that abandoned services serve only abandoned facilities.
   5. Remove abandoned pipe, ducts, conduits, and equipment , including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.

D. Protect existing work to remain.
   1. Prevent movement of structure; provide shoring and bracing if necessary.
   2. Perform cutting to accomplish removals neatly and as specified for cutting new work.

3. Repair adjacent construction and finishes damaged during removal work.

E. Adapt existing work to fit new work: Make as neat and smooth transition as possible.

F. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.

G. Refinish existing surfaces as indicated:
   1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
   2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.

H. Clean existing systems and equipment.

I. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.

J. Do not begin new construction in alterations areas before demolition is complete.

K. Comply with all other applicable requirements of this section.

**3.06 CUTTING AND PATCHING**

A. Whenever possible, execute the work by methods that avoid cutting or patching.

B. See Alterations article above for additional requirements.

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

D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

E. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.

F. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

G. Restore work with new products in accordance with requirements of Contract Documents.

H. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

I. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07 8400, to full thickness of the penetrated element.

J. Patching:
   1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
   2. Match color, texture, and appearance.

3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

### 3.07 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

### 3.08 PROTECTION OF INSTALLED WORK

A. Protect installed work from damage by construction operations.

B. Provide special protection where specified in individual specification sections.

C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

G. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

### 3.09 SYSTEM STARTUP

A. Coordinate schedule for start-up of various equipment and systems.

B. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.

C. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.

D. Verify that wiring and support components for equipment are complete and tested.

E. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.

F. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.

G. Submit a written report that equipment or system has been properly installed and is functioning correctly.

### 3.10 DEMONSTRATION AND INSTRUCTION

A. See Section 01 7900 - Demonstration and Training.

### 3.11 ADJUSTING

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

### 3.12 FINAL CLEANING

A. Use cleaning materials that are nonhazardous.

B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.

C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.

D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.

E. Clean filters of operating equipment.

F. Clean site; sweep paved areas, rake clean landscaped surfaces.

G. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

### 3.13 CLOSEOUT PROCEDURES

A. Make submittals that are required by governing or other authorities.

B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.

C. Notify Architect when work is considered ready for Architect's Substantial Completion inspection.

D. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection.

E. Conduct Substantial Completion inspection and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.

F. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.

G. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection.

H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

### 3.14 MAINTENANCE

A. Provide service and maintenance of components indicated in specification sections.

B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.

C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.

D. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

**END OF SECTION**

**SECTION 01 7329**
**CUTTING AND PATCHING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Requirements of this Section apply to each Prime Contractor and their subcontractors to perform all cutting, patching, matching, trenching, excavating, and backfilling as indicated on the Contract Drawings or as required for the installation of Work of their Contract where this Work is not specifically indicated to be performed by others.

B. Work included, but not necessarily limited to:
   1. Make the parts fit properly.
   2. Uncover Work to provide for installation, inspection, or of ill-timed Work.
   3. Remove and replace Work not conforming to requirements of the Contract Documents.
   4. Remove and replace Defective Work.
   5. Provide all required cutting, patching, matching, trenching, excavating, and backfilling as required to perform the Work of their Contract, except specifically noted otherwise on the Contract Drawings.
   6. All cutting and patching required to incorporate existing Work or equipment with installation of new Work.
   7. General Contractor shall review all Contract Drawings for all penetrations they are required to provide, as outlined in Article 1.05, A., 2., of this Section, for other Prime Contractors and their subcontractors and provide penetrations where not shown on Architectural Drawings.
   8. In addition to other requirements specified, upon the Architect/Engineer's request, uncover Work to provide for inspection by the Architect/Engineer of covered Work and remove samples of installed materials for testing.
   9. Do not cut or alter Work performed under separate contract without the Architect/Engineer's written permission.

### 1.02 RELATED SECTIONS

A. Section 02 4119 - Minor Demolition.

B. Section 31 2200 - Grading.

C. Section 31 2316 - Excavation.

D. Section 31 2323 - Fill.

### 1.03 DEFINITIONS

A. Cutting: Remove portions of the construction, its equipment, or site elements with extreme care to preserve the finish or the function of that portion which remains, because the cutting is done with the knowledge and intention that this remaining portion will be patched or restored to approximately its previous condition.

B. Patching: Replacement, Fitting, and Repair Work required to restore substrates and surfaces to original conditions after installation of Work of the Contract.

C. Demolition: The complete wrecking or removal of existing elements of the building and subsequent alteration or change in that which remains.

### 1.04 SUBMITTALS

A. See Section 01 3300 - Submittal Procedures for submittal process.

### 1.05 CUTTING, PATCHING AND DEMOLITION

A. Coordination:

1. Prime Contractors and their Subcontractors shall be responsible for the timely and accurate layout of their Work that involves cutting of raised floors or roof systems of either the existing or new building by the General Contractor as described in Article 1.05, A., 2., and shall provide the General Contractor with this information.
2. The General Contractor shall be responsible for cutting and patching operations of surfaces including raised floors and roof systems as noted on the drawings or as required to complete the Work to be provided by the other Prime Contractors and their subcontractors for openings requiring drilling of holes 10 inches or greater in diameter or cutting openings of 100 square inches or greater for piping, conduit, ductwork, and other openings required for the installation of new Work by other Prime Contractors and their Subcontractors.
3. Prime Contractors and their subcontractors shall be responsible for cutting and patching of holes or openings of lesser dimensions as noted in Article 1.05, A., 2., above unless otherwise noted on the Contract Drawings.
4. Any openings required to be cut through the roof system shall be performed by a certified roofing installer. These openings shall include the installation of headers and blocking to support remaining deck and other material above.
5. All openings in walls shall include installation of headers or lintels as required to support wall material and masonry above opening.
6. All openings in floors shall include the installation of headers and bracing to support the remaining floor and other materials above.
7. All Prime Contractors and their subcontractors shall be responsible for all patching of areas of cutting, except as noted in Article 1.05, A., 2., above or otherwise specifically noted on the Contract Drawings.
8. Patching shall be done in a manner that disturbed surfaces are restored to their original condition.
    a. Brick, CMU, and glazed tile unit walls shall be repaired by replacing whole masonry units in area of cutting to match surrounding walls.
    b. Lay-in acoustic ceiling tiles and tee grid removed to execute the Work of this Contract shall be replaced upon the completion of the Work. All acoustic tiles and tee grid members damaged by the Work of this Contract shall be replaced by the General Contractor. Tile units replaced shall match existing tile units in color and texture.
    c. Plaster and gypsum wallboard walls and ceilings shall be patched or replaced to the closest stud and painted to restore to original condition.
    d. Wall finishes such as ceramic tile and wall paper shall be patched or replaced to the nearest tile and the wallpaper shall be patched to the nearest seam.
    e. Finished flooring surfaces including sheet vinyl, VCT, terrazzo, ceramic or quarry tile, and underlying concrete shall be patched or replaced by replacing whole units to the nearest joint or divider strip.

**1.06 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.

B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety.

C. Fire Rated Elements: Do not cut and patch fire rated elements (i.e., floors, walls, roofs, shafts, etc.) in a manner that results in reducing their capacity to perform as intended or that results in decreased fire rating.

D. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, which results in reducing their capacity to perform as intended, or that result in increased maintenance or decreased operational life or safety.

E. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Design Professional's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

F. Cutting and Patching Conference: Before proceeding, meet at Project Site with parties involved in cutting and patching, including other Trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

**1.07 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.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

A. General: For replacement of Work removed, use materials to match new or existing adjacent surfaces which comply with the pertinent sections of these specifications.

B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
   1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials, unless specified otherwise in other Sections.

C. Fire Rated Elements: Provide firestopping products/systems specified in system design listings by approved testing agencies that conform to the construction type, penetrating item, annular space requirements and fire rating involved in each separate assembly. Refer to applicable Individual Specification Sections.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Inspection:
   1. Inspect existing conditions, including elements subject to movement or damage during cutting, excavating, backfilling, and patching.
   2. After uncovering the Work, inspect conditions affecting installation of new Work.

B. Compatibility:
   1. Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.

C. Discrepancies:
   1. If uncovered conditions are not as anticipated, immediately notify the Architect/Engineer and secure needed directions.
   2. Do not proceed in areas of discrepancy until all such discrepancies have been fully resolved.

**3.02 PREPARATION PRIOR TO CUTTING**

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

D. Existing Utility Services and Mechanical/Electrical/Plumbing Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting or patching to minimize interruption to occupied areas.

**3.03 PERFORMANCE**

A. Perform all required trenching, excavating and backfilling as required for all Work unless otherwise indicated in pertinent Sections of these Specifications. Perform cutting and demolition by methods which will prevent damage to other portions of the Work and will provide proper surfaces to receive installation of repair and new Work.

B. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval to avoid marring or damaging existing finishes. Cut or drill from the exposed or finished side into concealed surfaces.

C. Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill. Dampen as required to minimize dust.

D. Bypass utility services such as pipe or conduit before cutting where services are shown or required to be removed, relocated, or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture of other foreign matter after bypassing and cutting.

E. Restore Work with new products in accordance with requirements of Contract Documents.

F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction.
   1. 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.
   2. In fire rated assemblies cut opening only to the size required to provide the annular spacing for the required fire stopping system.
   3. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
   4. Concrete or Masonry: Cut using a cutting machine (i.e., an abrasive saw or a diamond-core dril)l.
   5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
   6. Proceed with patching after construction operations requiring cutting are complete.

G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
   1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
   2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
      a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
      b. Restore damaged pipe covering to its original condition.
   3. Floors and Walls: Where walls or partitions that are removed extend one (1) finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.

4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
6. Fire Rated Elements: Install firestopping systems to comply with applicable Individual Specification Sections and firestopping manufacturer's written installation instructions and published Drawings for products and applications.

H. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest corner, intersection or natural break. For an assembly, refinish entire unit.

I. Perform fitting and adjustment of products to provide finished installation complying with the specified tolerances and finishes.

J. Where no detail is provided, the Prime Contractor shall patch areas disturbed, as required by the execution of their Contract, with systems and materials of similar composition to match existing adjacent systems and materials, subject to approval by Architect/Engineer.

**3.04 INTERFACE WITH OTHER WORK**

A. Coordinate as required with other Trades to assure proper and adequate provision in the Work for those Trades that interface with the Work of this Section.

**3.05 CLEANING**

A. No of Contractors Contractor shall be responsible for thoroughly cleaning area upon the completion of cutting and patching operations. Thoroughly clean adjacent surrounding surfaces of all dust debris, oil residue, moisture, and patching materials prior to new finishes being installed and upon completion of final finishing.

**END OF SECTION**

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**SECTION 01 7800**
**CLOSEOUT SUBMITTALS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Project Record Documents.

B. Operation and Maintenance Data.

C. Warranties and bonds.

### 1.02 RELATED REQUIREMENTS

A. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.

B. Section 01 7000 - Execution and Closeout Requirements: Contract closeout procedures.

C. Individual Product Sections: Specific requirements for operation and maintenance data.

D. Individual Product Sections: Warranties required for specific products or Work.

### 1.03 SUBMITTALS

A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.

B. Operation and Maintenance Data:
   1. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
   2. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
   3. Submit two sets of revised final documents in final form within 10 days after final inspection.

C. Warranties and Bonds:
   1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
   2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
   3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

## PART 2 PRODUCTS - NOT USED

## PART 3 EXECUTION

A. Maintain on site one set of the following record documents; record actual revisions to the Work:
   1. Drawings.
   2. Specifications.
   3. Addenda.
   4. Change Orders and other modifications to the Contract.
   5. Reviewed shop drawings, product data, and samples.
   6. Manufacturer's instruction for assembly, installation, and adjusting.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

C. Store record documents separate from documents used for construction.

D. Record information concurrent with construction progress.

E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
   1. Manufacturer's name and product model and number.
   2. Product substitutions or alternates utilized.
   3. Changes made by Addenda and modifications.

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

**3.02 OPERATION AND MAINTENANCE DATA**

A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.

B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.

C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.

D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

**3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES**

A. For Each Product, Applied Material, and Finish:
   1. Product data, with catalog number, size, composition, and color and texture designations.

B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.

C. Additional information as specified in individual product specification sections.

D. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

**3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS**

A. For Each Item of Equipment and Each System:
   1. Description of unit or system, and component parts.
   2. Identify function, normal operating characteristics, and limiting conditions.
   3. Include performance curves, with engineering data and tests.
   4. Complete nomenclature and model number of replaceable parts.

B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.

C. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.

D. Include color coded wiring diagrams as installed.

E. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.

F. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.

G. Provide servicing and lubrication schedule, and list of lubricants required.

H. Include manufacturer's printed operation and maintenance instructions.

I. Include sequence of operation by controls manufacturer.

J. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.

K. Provide control diagrams by controls manufacturer as installed.

L. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.

M. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.

N. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.

O. Include test and balancing reports.

P. Additional Requirements: As specified in individual product specification sections.

**3.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS**

A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.

B. Where systems involve more than one specification section, provide separate tabbed divider for each system.

C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.

D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.

E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.

F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.

G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.

H. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.

I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

J. Arrangement of Contents: Organize each volume in parts as follows:
   1. Project Directory.
   2. Table of Contents, of all volumes, and of this volume.
   3. Operation and Maintenance Data: Arranged by system, then by product category.
      a. Source data.
      b. Product data, shop drawings, and other submittals.

c. Operation and maintenance data.
d. Field quality control data.
e. Photocopies of warranties and bonds.

4. Design Data: To allow for addition of design data furnished by Architect or others, provide a tab labeled "Design Data" and provide a binder large enough to allow for insertion of at least 20 pages of typed text.

**3.06 WARRANTIES AND BONDS**

A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.

B. Verify that documents are in proper form, contain full information, and are notarized.

C. Co-execute submittals when required.

D. Retain warranties and bonds until time specified for submittal.

E. Manual: Bind in commercial quality 8-1/2 by 11 inch three D side ring binders with durable plastic covers.

F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.

G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.

H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

**END OF SECTION**

**PROJECT CLOSEOUT**
**CHECK LIST**

Project: Port Jervis City School District - Alterations to MS / HS & New Varsity Baseball / Softball Dugouts / Storage  Project No. 2019-011 PH2

Contract: _____  Contract Date: _____

Contractor: _____
Name  Telephone

_____
Address

_____

==========

After the Contractor has met all of his obligation of the Contract and is ready to submit the "Final Application for Payment" (as defined in the General and Supplementary Conditions), he is responsible for providing the following items along with the Final Payment to the Engineer (Please note that these shall be provided in one full package, partial submissions of these items will be not be allowed):

1) Consent of Surety to Reduction in or Partial Release of Retainage, AIA Document G707A.

2) Consent of Surety to Final Payment, AIA Document G707.

3) Contractor's Affidavit of Release of Liens, AIA Document G706A (one copy required from all subcontractors).

4) Contractor's Affidavit of Payment of Debts and Claims. AIA Document G706. (one copy required from all subcontractors).

5) Warranty of Title: (sample letter enclosed).

6) Certification: Signed and notarized certification that no asbestos containing materials have been used in the construction (enclosed).

7) Insurance:

   a) All policies of insurance required at the commencement of the project shall remain in effect at all times after final payment, when the Contractor is completing, correcting, removing, replacing work and/or completing items enumerated in engineer's Certificate of Substantial Completion. (Certificates of Insurance shall be evidence thereof.)

   b) Completed Operation Insurance: shall be maintained for at least two years after final payment. Furnish owner with evidence of continuation at time of final payment and continuation one year thereafter.

8) Provide the owner with construction Master-Key System. **

Per Specifications

9) Provide the owner with all product warranties and/or guarantees, including the following; **

Per Specifications

10) Provide the Owner with all Maintenance and Operating Manuals, indicating operating instructions and maintenance schedules for all equipment, systems, operating devices and specialties including the following; **

Per Specifications

11) Record Documents (Per Section 01 7800 of Specifications)

**** If previously provided, please indicate date of submission.**

# CERTIFICATION

I, _____, being an officer of _____

do hereby certify that _____ was the Contractor for the work for the **Port Jervis City School District's Alterations to MS / HS & New Varsity Baseball / Softball Dugouts / Storage** (Architect/Engineer Project No. 2019-011 PH2) and that pursuant to and in compliance with the Contract Documents, Information to bidders, Paragraph 20, Hazardous Wastes, and Bid Description for Contract No. _____ _____, no asbestos containing materials were used in the construction of this project and all materials were provided in accordance with the Federal Asbestos Hazard Emergency Response Act (AHERA) and the New York State Asbestos Safety Act (SASA).

_____

_____
By:

State of _____ )
County of _____ )

Subscribed and sworn to before me
this _____ day of _____, 20__.

_____
Notary Public

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# CONTRACTOR'S
# WARRANTY OF TITLE

**TO (Owner):**

| | |
|---|---|
| Port Jervis City School District | **Date:** |
| 150 Pike Street | **Contract: No. –** |
| Port Jervis, New York 12771 | **Project No.:** 2019-011 PH2 |

Project Alterations to MS / HS & New Varsity Baseball / Softball Dugouts / Storage
(Name)

I, the undersigned, pursuant to Article 9.3.3 of the General Conditions of the Contract for Construction, warrants and guarantees that the title to all work, material and equipment, whether incorporated in the project or not, will pass to the Owner no later than the time of Final Payment, free and clear of all liens.

Contractor

By

Date

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**SECTION 01 7900**
**DEMONSTRATION AND TRAINING**

## PART 1 GENERAL

### 1.01 SUMMARY

A. Demonstration of products and systems to be commissioned and where indicated in specific Specification Sections.

B. Training of Owner personnel in operation and maintenance is required for:
   1. All software-operated systems.
   2. HVAC systems and equipment.
   3. Plumbing equipment.
   4. Electrical systems and equipment.
   5. Items specified in individual product Sections.

C. Training of Owner personnel in care, cleaning, maintenance, and repair is required for:
   1. Roofing, waterproofing, and other weather-exposed or moisture protection products.
   2. Finishes, including flooring, wall finishes, ceiling finishes.
   3. Fixtures and fittings.
   4. Items specified in individual product Sections.

### 1.02 RELATED REQUIREMENTS

A. Section 01 7800 - Closeout Submittals: Operation and maintenance manuals.

B. **Section 01 9113 - General Commissioning Requirements: Additional requirements applicable to demonstration and training. DELETE IF NOT IN PROJECT OR UNBOLD/DELETE UNDERLINE**

C. Other Specification Sections: Additional requirements for demonstration and training.

### 1.03 SUBMITTALS

A. See Section 01 3300 - Submittal Procedures for submittal process.

B. Draft Training Plans: Owner will designate personnel to be trained; tailor training to needs and skill-level of attendees.
   1. Submit to Architect for transmittal to Owner.
   2. Submit not less than 4 weeks prior to start of training.
   3. Revise and resubmit until acceptable.
   4. Provide an overall schedule showing all training sessions.
   5. Include at least the following for each training session:
      a. Identification, date, time, and duration.
      b. Description of products and/or systems to be covered.
      c. Name of firm and person conducting training; include qualifications.
      d. Intended audience, such as job description.
      e. Objectives of training and suggested methods of ensuring adequate training.
      f. Methods to be used, such as classroom lecture, live demonstrations, hands-on, etc.
      g. Media to be used, such a slides, hand-outs, etc.
      h. Training equipment required, such as projector, projection screen, etc., to be provided by Contractor.

C. Training Manuals: Provide training manual for each attendee; allow for minimum of two (2) attendees per training session.
   1. Include applicable portion of Operation and Maintenance Manuals.
   2. Include copies of all hand-outs, slides, overheads, video presentations, etc., that are not included in Operation and Maintenance Manuals.
   3. Provide one (1) extra copy of each training manual to be included with operation and maintenance data.

4. Training Reports:
    a. Identification of each training session, date, time, and duration.
    b. Sign-in sheet showing names and job titles of attendees.
    c. List of attendee questions and written answers given, including copies of and references to supporting documentation required for clarification; include answers to questions that could not be answered in original training session.

**1.04 QUALITY ASSURANCE**

A. Instructor Qualifications: Familiar with design, operation, maintenance and troubleshooting of the relevant products and systems.
    1. Provide as instructors the most qualified trainer of those Contractors and/or installers who actually supplied and installed the systems and equipment.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 DEMONSTRATION - GENERAL**

A. Demonstrations conducted during system start-up do not qualify as demonstrations for the purposes of this section, unless approved in advance by Owner.

B. Demonstrations conducted during functional testing need not be repeated unless Owner personnel training is specified.

C. Demonstration may be combined with Owner personnel training, if applicable.

D. Operating Equipment and Systems: Demonstrate operation in all modes, including start-up, shut-down, seasonal changeover, emergency conditions, and troubleshooting, and maintenance procedures, including scheduled and preventive maintenance.
    1. Perform demonstrations not less than 2 weeks prior to Substantial Completion.
    2. For equipment or systems requiring seasonal operation, perform demonstration for other season within 6 months.

E. Non-Operating Products: Demonstrate cleaning, scheduled and preventive maintenance, and repair procedures.
    1. Perform demonstrations not less than 2 weeks prior to Substantial Completion.

**3.02 TRAINING - GENERAL**

A. Conduct training on-site unless otherwise indicated.

B. Owner will provide classroom and seating at no cost to Contractor.

C. Do not start training until Functional Testing is complete, unless otherwise specified or approved by the Architect.

D. Provide training in minimum 2 hour segments.

E. Training schedule will be subject to availability of Owner's personnel to be trained; re-schedule training sessions as required by Owner; once schedule has been approved by Owner failure to conduct sessions according to schedule will be cause for Owner to charge Contractor for personnel "show-up" time.

F. Product- and System-Specific Training:
    1. Review the applicable Operation and Maintenance Manuals.
    2. For systems, provide an overview of system operation, design parameters and constraints, and operational strategies.
    3. Review instructions for proper operation in all modes, including start-up, shut-down, seasonal changeover and emergency procedures, and for maintenance, including preventative maintenance.
    4. Provide hands-on training on all operational modes possible and preventive maintenance.
    5. Discuss common troubleshooting problems and solutions.

6. Discuss any peculiarities of equipment installation or operation.
7. Discuss warranties and guarantees, including procedures necessary to avoid voiding coverage.
8. Review recommended tools and spare parts inventory suggestions of manufacturers.
9. Review spare parts and tools required to be furnished by Contractor.

G. Be prepared to answer questions raised by training attendees; if unable to answer during training session, provide written response within 3 days.

**END OF SECTION**

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**SECTION 01 9113**
**GENERAL COMMISSIONING REQUIREMENTS**

## PART 1 GENERAL

### 1.01 SUMMARY

A. Commissioning is intended to achieve the following specific objectives; this Section specifies the Contractor's responsibilities for commissioning:
   1. Verify and document that functional performance is in accordance with the Contract Documents: Functional tests executed by Contractor and witnessed by the Owner's Representative are utilized to achieve this.
   2. Verify that operation and maintenance manuals submitted to Owner are complete: Detailed operation and maintenance (O&M) data submittals by Contractor are utilized to achieve this.
   3. Verify that the Owner's operating personnel are adequately trained: Formal training conducted by Contractor is utilized to achieve this.

B. Commissioning, including Functional tests, O&M documentation review, and training, is to occur after start-up and initial checkout and be completed before Substantial Completion.

### 1.02 SCOPE OF COMMISSIONING

A. The following are to be commissioned:
   1. Plumbing Systems:
      a. Water heaters.
      b. Booster pumps.
   2. HVAC System, including:
      a. Major and minor equipment items.
      b. Piping systems and equipment.
      c. Ductwork and accessories.
      d. Terminal units.
      e. Control system.
      f. Sound control devices.
      g. Vibration control devices.
      h. Variable frequency drives.
   3. Special Ventilation:
      a. Fume hoods.
   4. Electrical Systems:
      a. Power quality.
      b. Emergency power systems.
      c. Lighting controls other than manual switches.
   5. Electronic Safety and Security:
      a. Security system, including doors and hardware.
      b. Fire and smoke alarms.
   6. Communications:
      a. Voice and data systems.
      b. Public address/paging.

B. Other equipment and systems explicitly identified elsewhere in Contract Documents as requiring commissioning.

C. Indoor Air Quality Procedures: The Owner's Representative will coordinate; Contractor will execute; see Section 01 5721 - Indoor Air Quality Controls.

### 1.03 RELATED REQUIREMENTS

A. Section 01 5719 - Temporary Environmental Controls: Precautions and procedures; smoking room testing; building flush-out.

B. Section 01 7000 - Execution Requirments: General start-up requirements.

C. Section 01 7800 - Closeout Submittals: Scope and procedures for operation and maintenance manuals and project record documents.

D. Section 01 7900 - Demonstration and Training: Scope and procedures for Owner personnel training.

### 1.04 SUBMITTALS

A. See Section 01 3300 - Submittal Requirements for submittal process; except:
   1. Make all submittals specified in this Section and elsewhere where indicated for commissioning purposes, to the Architect.

B. Manufacturers' Instructions: Submit copies of all manufacturer-provided instructions that are shipped with the equipment as soon as the equipment is delivered.

C. Product Data:
   1. Manufacturer's product data, cut sheets, and shop drawings.
   2. Manufacturer's installation instructions.
   3. Start-up, operating, and troubleshooting procedures.
   4. Fan and pump curves.
   5. Factory test reports.
   6. Warranty information, including details of Owner's responsibilities in regard to keeping warranties in force.

D. Start-up Plans and Reports.

E. Completed Pre-functional Checklists.

## PART 2 PRODUCTS

### 2.01 TEST EQUIPMENT

A. Provide all standard testing equipment required to perform start-up and initial checkout and required Functional Testing; unless otherwise noted such testing equipment will NOT become the property of Owner.

B. Calibration Tolerances: Provide testing equipment of sufficient quality and accuracy to test and/or measure system performance with the tolerances specified. If not otherwise noted, the following minimum requirements apply:
   1. Temperature Sensors and Digital Thermometers: Certified calibration within past year to accuracy of 0.5 degree F and resolution of plus/minus 0.1 degree F.
   2. Pressure Sensors: Accuracy of plus/minus 2 percent of the value range being measured (not full range of meter), calibrated within the last year.
   3. Calibration: According to the manufacturer’s recommended intervals and when dropped or damaged; affix calibration tags or keep certificates readily available for inspection.

## PART 3 EXECUTION

### 3.01 START-UP PLANS AND REPORTS

A. Start-up Plans: For each item of equipment and system for which the manufacturer provides a start-up plan, submit the plan not less than 8 weeks prior to start-up.

B. Start-up Reports: For each item of equipment and system for which the manufacturer provides a start-up checklist (or start-up plan or field checkout sheet), document compliance by submitting the completed start-up checklist prior to start-up, signed and dated by responsible entity.

## 3.02 PRE-FUNCTIONAL CHECKLISTS

A. A Pre-functional Checklist is required to be filled out for each item of equipment or other assembly specified to be commissioned.
   1. No sampling of identical or near-identical items is allowed.
   2. These checklists do not replace manufacturers' recommended start-up checklists, regardless of apparent redundancy.
   3. Pre-functional Checklist forms will not be complete until after award of the Contract; the following types of information will be gathered via the completed Checklist forms:
      a. Certification by installing Contractor that the unit is properly installed, started up, and operating and ready for Functional Testing.
      b. Manufacturer, model number, and relevant capacity information; list information "as specified," "as submitted," and "as installed."
      c. Serial number of installed unit.
      d. List of inspections to be conducted to document proper installation prior to start-up and Functional Testing; these will be primarily static inspections and procedures; for equipment and systems may include normal manufacturer’s start-up checklist items and minor testing.
      e. Sensor and actuator calibration information.

B. Contractor is responsible for filling out Pre-functional Checklists, after completion of installation and before start-up; witnessing by the Owner's Representative is not required unless otherwise specified.
   1. Each line item without deficiency is to be witnessed, initialed, and dated by the actual witness; checklists are not complete until all line items are initialed and dated complete without deficiencies.
   2. Checklists with incomplete items may be submitted for approval provided the Contractor attests that incomplete items do not preclude the performance of safe and reliable Functional Testing; re-submission of the Checklist is required upon completion of remaining items.
   3. Individual Checklists may contain line items that are the responsibility of more than one (1) installer; Contractor shall assign responsibility to appropriate installers or subcontractors, with identification recorded on the form.
   4. If any Checklist line item is not relevant, record reasons on the form.
   5. Regardless of these reporting requirements, Contractor is responsible for correct start-up and operation.
   6. Submit completed Checklists to Owner's Representative within 2 days of completion.

C. Deficiencies: Correct deficiencies and re-inspect or re-test, as applicable, at no extra cost to Owner.
   1. If difficulty in correction would delay progress, report deficiency to the Owner's Representative immediately.

## 3.03 FUNCTIONAL TESTS

A. A Functional Test is required for each item of equipment, system, or other assembly specified to be commissioned, unless sampling of multiple identical or near-identical units is allowed by the final test procedures.

B. Contractor is responsible for execution of required Functional Tests, after completion of Pre-functional Checklist and before closeout.

C. Contractor is responsible for correction of deficiencies and re-testing at no extra cost to Owner; if a deficiency is not corrected and re-tested immediately, the Owner's Representative will document the deficiency and the Contractor's stated intentions regarding correction.

1. Deficiencies are any condition in the installation or function of a component, piece of equipment or system that is not in compliance with the Contract Documents or does not perform properly.
2. When the deficiency has been corrected, the Contractor completes the form certifying that the item is ready to be re-tested and returns the form to the Owner's Representative; the Owner's Representative will reschedule the test and the Contractor shall re-test.
3. Identical or Near-Identical Items: If 10 percent, or three, whichever is greater, of identical or near-identical items fail to perform due to material or manufacturing defect, all items will be considered defective; provide a proposal for correction within 2 weeks after notification of defect, including provision for testing sample installations prior to replacement of all items.
4. Contractor shall bear the cost of Owner and Owner's Representative personnel time witnessing re-testing if the test failed due to failure to execute the relevant Pre-functional Checklist correctly; if the test failed for reasons that would not have been identified in the Pre-functional Checklist process, Contractor shall bear the cost of the second and subsequent re-tests.

D. Functional Test Procedures:
1. Some test procedures are included in the Contract Documents; where Functional Test procedures are not included in the Contract Documents, test procedures will be determined by the Contractor.
2. Examples of Functional Testing:
a. Test the dynamic function and operation of equipment and systems (rather than just components) using manual (direct observation) or monitoring methods under full operation (i.e., the chiller pump is tested interactively with the chiller functions to see if the pump ramps up and down to maintain the differential pressure setpoint).
b. 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.
c. Systems are run through all the HVAC control system’s sequences of operation and components are verified to be responding as the sequence's state.
d. Traditional air or water test and balancing (TAB) is not Functional Testing; spot checking of TAB by demonstration to the Owner's Representative is Functional Testing.

E. Deferred Functional Tests: Some tests may need to be performed later, after substantial completion, due to partial occupancy, equipment, seasonal requirements, design or other site conditions; performance of these tests remains the Contractor's responsibility regardless of timing.

F. Field Tests By Others: Where Functional Tests are indicated as to be performed by others not subject to the Contract Documents, those tests are not subject to these commissioning requirements.

**3.04 SENSOR AND ACTUATOR CALIBRATION**

A. Calibrate all field-installed temperature, relative humidity, carbon monoxide, carbon dioxide, and pressure sensors and gages, and all actuators (dampers and valves) on this piece of equipment shall be calibrated. Sensors installed in the unit at the factory with calibration certification provided need not be field calibrated.

B. Calibrate using the methods described below; alternate methods may be used, if approved by Commissioning Authority and Owner beforehand. See PART 2 for test instrument requirements. Record methods used on the relevant Pre-functional Checklist or other suitable forms, documenting initial, intermediate and final results.

C. All Sensors:

1. Verify that sensor location is appropriate and away from potential causes of erratic operation.
2. Verify that sensors with shielded cable are grounded only at one end.
3. For sensor pairs that are used to determine a temperature or pressure difference, for temperature make sure they are reading within 0.2 degree F of each other, and for pressure, within tolerance equal to 2 percent of the reading, of each other.

D. Sensors Without Transmitters - Standard Application:
1. Make a reading with a calibrated test instrument within 6 inches of the site sensor.
2. Verify that the sensor reading, via the permanent thermostat, gage or building automation system, is within the tolerances in the table below of the instrument-measured value.
3. If not, install offset, calibrate or replace sensor.

E. Sensors With Transmitters - Standard Application.
1. Disconnect sensor.
2. Connect a signal generator in place of sensor.
3. Connect ammeter in series between transmitter and building automation system control panel.
4. Using manufacturer's resistance-temperature data, simulate minimum desired temperature.
5. Adjust transmitter potentiometer zero until 4 mA is read by the ammeter.
6. Repeat for the maximum temperature matching 20 mA to the potentiometer span or maximum and verify at the building automation system.
7. Record all values and recalibrate controller as necessary to conform with specified control ramps, reset schedules, proportional relationship, reset relationship and P/I reaction.
8. Reconnect sensor.
9. Make a reading with a calibrated test instrument within 6 inches of the site sensor.
10. Verify that the sensor reading, via the permanent thermostat, gage or building automation system, is within the tolerances in the table below of the instrument-measured value.
11. If not, replace sensor and repeat.
12. For pressure sensors, perform a similar process with a suitable signal generator.

F. Sensor Tolerances for Standard Applications: Plus/minus the following maximums:
1. Watthour, Voltage, Amperage: 1 percent of design.
2. Pressure, Air, Water, Gas: 3 percent of design.
3. Air Temperatures (Outside Air, Space Air, Duct Air): 0.4 degrees F.
4. Relative Humidity: 4 percent of design.
5. Barometric Pressure: 0.1 inch of Hg.
6. Flow Rate, Air: 10 percent of design.
7. Flow Rate, Water: 4 percent of design.
8. AHU Wet Bulb and Dew Point: 2.0 degrees F.
9. Hot Water Coil and Boiler Water Temperature: 1.5 degrees F.
10. Cooling Coil, Chilled and Condenser Water Temperatures: 0.4 degrees F.
11. Combustion Flue Temperature: 5.0 degrees F.
12. Oxygen and CO2 Monitors: 0.1 percentage points.
13. CO Monitor: 0.01 percentage points.

G. Valve/Damper Stroke Set-up and Check:
1. For all valve/damper actuator positions checked, verify the actual position against the control system readout.
2. Set pump/fan to normal operating mode.
3. Command valve/damper closed; visually verify that valve/damper is closed and adjust output zero signal as required.

4. Command valve/damper to open; verify position is full open and adjust output signal as required.
5. Command valve/damper to a few intermediate positions.
6. If actual valve/damper position does not reasonably correspond, replace actuator or add pilot positioner (for pneumatics).

H. Isolation Valve or System Valve Leak Check: For valves not associated with coils.
1. With full pressure in the system, command valve closed.
2. Use an ultra-sonic flow meter to detect flow or leakage.

**3.05 TEST PROCEDURES - GENERAL**

A. Provide skilled technicians to execute starting of equipment and to execute the Functional Tests. Ensure that they are available and present during the agreed upon schedules and for sufficient duration to complete the necessary tests, adjustments and problem-solving.

B. Provide all necessary materials and system modifications required to produce the flows, pressures, temperatures, and conditions necessary to execute the test according to the specified conditions. At completion of the test, return all affected equipment and systems to their pre-test condition.

C. Sampling: Where Functional Testing of fewer than the total number of multiple identical or near-identical items is explicitly permitted, perform sampling as follows:
1. Identical Units: Defined as units with same application and sequence of operation; only minor size or capacity difference.
2. Sampling is not allowed for:
a. Major equipment.
b. Life-safety-critical equipment.
3. Randomly test at least 50 percent of each group of identical equipment, but not less than three units. This constitutes the "first sample."
4. If 10 percent of the units in the first sample fail, test another 30 percent of the remaining identical units.
5. If 10 percent of the units in the second sample fail, test all remaining identical units.
6. If frequent failures occur, resulting in more troubleshooting than testing, the Owner's Representative may stop the testing and require Contractor to perform and document a checkout of the remaining units prior to continuing testing.

D. Manual Testing: Use 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”).

E. Simulating Conditions: Artificially create the necessary condition for the purpose of testing the response of a system; for example apply hot air to a space sensor using a hair dryer to see the response in a VAV box.

F. Simulating Signals: Disconnect the sensor and use a signal generator to send an amperage, resistance or pressure to the transducer and control system to simulate the sensor value.

G. Over-Writing Values: Change the sensor value known to the control system in the control system to see the response of the system; for example, change the outside air temperature value from 50 degrees F to 75 degrees F to verify economizer operation.

H. Indirect Indicators: Remote indicators of a response or condition, such as a reading from a control system screen reporting a damper to be 100 percent closed, are considered indirect indicators.

**END OF SECTION**

**SECTION 02 2600**

**ASBESTOS, LEAD, AND PCB ASSESSMENT**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Asbestos, Lead, and PCB Investigation Report:
   1. An asbestos, lead, and PCB investigation report (limited hazardous materials survey report) has been prepared for the site of this Work and excerpts are included herein for information only and are not part of the Contract Documents.

B. Use of data:
   1. Locations of samples are indicated on the building floor plan, which is included in the Report.
   2. Results of tests are included hereafter for examination by the Contractor. This data is offered in good faith for the purpose of advising the Contractor of all information that is available.
   3. The limited hazardous materials survey report is not, however, part of the Contract Documents, and the Owner does not guarantee the continuity of conditions indicated in the test report.
   4. Each Bidder, and the successful Bidder who will be awarded the Contract, will be responsible for any conclusions, and/or interpretations, drawn from those test data.
   5. The report is available for Bidders' information, but is not a warranty of surface conditions.
   6. Bidders should visit the site and acquaint themselves with existing conditions.
   7. Bidders who wish to conduct their own investigation, and employ their own experts to assess the existing conditions are encouraged to do so. To secure permission for entering the project site to conduct such exploration, Bidders shall contact the Architect at least five (5) working days in advance.

## PART 2 PRODUCTS – NOT USED

## PART 3 EXECUTION – NOT USED

**END OF SECTION**

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**SECTION 02 4100**
**DEMOLITION**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Selective demolition of building elements for alteration purposes.

### 1.02 RELATED REQUIREMENTS

A. Section 01 1000 - Summary: Limitations on Contractor's use of site and premises.

B. Section 01 1000 - Summary: Sequencing and staging requirements.

C. Section 01 5000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.

D. Section 01 7000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.

E. Section 31 1000 - Site Clearing: Vegetation and existing debris removal.

### 1.03 DEFINITIONS

A. Demolition: Dismantle, raze, destroy or wreck any building or structure or any part thereof.

B. Remove: Detach or dismantle items from existing construction and dispose of them off site, unless items are indicated to be salvaged or reinstalled.

C. Remove and Reinstall: Detach or dismantle items from existing construction in a manner to prevent damage. Clean and prepare for reuse and reinstall where indicated.

D. Existing to Remain: Designation for existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.

### 1.04 REFERENCE STANDARDS

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

B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations 2022, with Errata (2021).

### 1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Site Plan: Indicate:
   1. Areas for temporary construction and field offices.

C. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

## PART 3 EXECUTION

### 2.01 DEMOLITION

A. Remove portions of existing building or site features as shown on the Demolition drawings.

B. Remove fences and gates.

### 2.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

A. Comply with requirements in Section 01 7000.

B. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
   1. Obtain required permits.
   2. Use of explosives is not permitted.

3. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
4. Provide, erect, and maintain temporary barriers and security devices.
5. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
6. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
7. Do not close or obstruct roadways or sidewalks without permits from authority having jurisdiction.
8. Conduct operations to minimize obstruction of public and private entrances and exits. Do not obstruct required exits at any time. Protect persons using entrances and exits from removal operations.
9. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon, or limit access to their property.

C. Do not begin removal until receipt of notification to proceed from Owner and Construction Manager.

D. Protect existing structures and other elements to remain in place and not removed.
1. Provide bracing and shoring.
2. Prevent movement or settlement of adjacent structures.
3. Stop work immediately if adjacent structures appear to be in danger.

E. Hazardous Materials:
1. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCBs, and mercury.

**2.03 EXISTING UTILITIES**

A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and obtain required permits.

B. Protect existing utilities to remain from damage.

C. Do not disrupt public utilities without permit from authority having jurisdiction.

D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.

E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.

F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.

G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone. Identify and mark, in same manner as other utilities to remain, utilities to be reconnected.

**2.04 SELECTIVE DEMOLITION FOR ALTERATIONS**

A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
1. Verify construction and utility arrangements are as indicated.
2. Report discrepancies to Architect before disturbing existing installation.
3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.

B. Separate areas in which demolition is being conducted from areas that remain occupied.
   1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 in locations indicated on drawings.
   2. Provide sound retardant partitions of construction and in locations indicated on drawings.

C. Remove existing work as indicated and required to accomplish new work.
   1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction indicated.
   2. Remove items indicated on drawings.

D. Services including, but not limited to, HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications: Remove existing systems and equipment as indicated.
   1. Maintain existing active systems to remain in operation, and maintain access to equipment and operational components.
   2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
   3. See Section 01 1000 - Summary for limitations on outages and required notifications.
   4. Verify that abandoned services serve only abandoned facilities before removal.
   5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings. Remove back to source of supply where possible, otherwise cap stub and tag with identification.

E. Protect existing work to remain.
   1. Prevent movement of structure. Provide shoring and bracing as required.
   2. Perform cutting to accomplish removal work neatly and as specified for cutting new work.
   3. Repair adjacent construction and finishes damaged during removal work.
   4. Patch to match new work.

## 2.05 DEBRIS AND WASTE REMOVAL

A. Remove debris, junk, and trash from site.

B. Leave site in clean condition, ready for subsequent work.

C. Clean up spillage and wind-blown debris from public and private lands.

**END OF SECTION**

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**SECTION 02 8213**

**ASBESTOS ABATEMENT**

## PART 1 GENERAL

### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 specification sections shall apply to work of this section.

### 1.02 SUMMARY

A. This Section describes procedures for abatement of asbestos-containing materials (ACM) from the areas of scheduled work.
   1. ACM and assumed ACM that are located within the areas of scheduled work will require abatement prior to, or in coordination with, the scheduled demolition and renovation activities. Reference the "AA" drawings for additional details pertaining to abatement of identified or assumed ACM.
   2. Materials with trace asbestos have been identified within the areas of scheduled work. Although not considered regulated ACM, work activities affecting materials with trace asbestos are subject to criteria specified in OSHA 29 CFR 1926.1101.
   3. Verify the locations and quantities of materials to be removed as the basis for the bid. Contract Drawings depict the areas in which the work will be conducted, and show the general location of identified or assumed ACM, as determined from the hazardous materials assessment performed for the site.
   4. Suspect ACM that have not been tested must be assumed to contain asbestos, unless proved otherwise through sampling and analysis.

B. The Contractor is responsible for all work related to the abatement of identified ACM, including, but not limited to, the following:
   1. Submission and approval of required notification prior to commencement of work.
   2. Coordination with the Owner or Owner's designated representative for removal of movable furnishings and equipment, including miscellaneous small items such as tools, stored materials, files, and records, prior to asbestos abatement work commencing.
   3. Protection of Work to Remain: Preserve and protect building materials and finishes, electrical equipment, and heating and ventilation equipment present within each work area that is not removed or abated. Perform work without damage to or contamination of adjacent areas. The Contractor and Owner shall agree in writing on the condition of the building and fixtures and background level, prior to commencement of the work.
   4. Removal of all ACM within the areas of work, as designated on the Contract Drawings.
   5. Inspection of areas of work to ensure that all ACM has been removed in accordance with the Contract Documents.
   6. Furnish all labor, materials, services, insurance, and equipment necessary to complete the abatement work in accordance with applicable regulations and codes.
   7. Be responsible for obtaining approval for a waste disposal site and transportation of waste to waste disposal facility. Waste disposal facility must have a valid NYSDEC or Regulatory Waste Authority permit. Waste transporter shall have a valid NYSDEC, Division of Solid & Hazardous Materials, Part 364 Waste Transporter Permit.
   8. Post all applicable regulations at the project site.
   9. Maintain the required log of all persons entering work area.
   10. Provide Owner with close-out report and record drawings containing all information pertaining to the removal and disposal of ACM (quantity and location).
   11. Provide Owner with record drawing of asbestos removal including location, quantity and type of asbestos removed.

C. Perform all work in such a manner as to minimize the risk of exposure to personnel, to prevent exposure to occupants, and to minimize the risk of release of asbestos or asbestos-containing debris to the environment.

D. Take notice, and make employees aware, of occupational safety hazards associated with the abatement work and other work being performed on-site.

E. Perform all work in strict accordance with the Contract Documents and all governing codes, rules, and regulations. Where conflicts occur between the Contract Documents and applicable codes, rules, and regulations, the more stringent procedure(s) shall apply. Interpretation of regulations or differences in interpretation of applicable regulations between any parties associated with the project shall be settled in a manner consistent with the administrative and contractual procedures specified in other applicable sections of the Contract Documents. If a resolution cannot be readily obtained, the applicable regulatory authority will be contacted for interpretation. The interpretation of the regulatory authority will be final.

**1.03 REGULATIONS AND CODES**

A. Comply with the codes and standards listed below, except where more stringent requirements are shown and/or specified. Specific regulations, standards, and guidance documents are listed for informational purposes due to relevance to the work described herein. Specific regulations, standards, and guidance documents that are not listed may also be applicable to the work.

1. Federal Regulations:
   a. American National Standard Institute (ANSI)
      1) ANSI Z88.2-80, Practices for Respiratory Protection
      2) ANSI Z9.2-79, Fundamentals Governing the Design and Operation of Local Exhaust Systems
   b. Code of Federal Regulations (CFR)
      1) 29 CFR 1910.1001, “Asbestos” (OSHA)
      2) 29 CFR 1910.1200, “Hazard Communication” (OSHA)
      3) 29 CFR 1910.134, “Respiratory Protection” (OSHA)
      4) 29 CFR 1910.145, “Specification for Accident Prevention Signs and Tags” (OSHA)
      5) 29 CFR 1926, “Construction Industry” (OSHA)
      6) 29 CFR 1926.1101, “Asbestos” (OSHA)
      7) 29 CFR 1926.500, “Guardrails, Handrails and Covers” (OSHA)
      8) 40 CFR 61, Subpart A, “General Provisions” (EPA)
      9) 40 CFR 61, Subpart M, “National Emission Standard for Asbestos” (USEPA)
      10) 49 CFR 171-172, “Transportation Standards” (USDOT)
      11) 40 CFR 763, Subpart E, “Asbestos-Containing Materials in Schools” (USEPA)
   c. Occupational Safety and Health Administration (OSHA)
   d. United States Department of Transportation (USDOT)
   e. United States Environmental Protection Agency (USEPA)
      1) USEPA 560/585-024, Guidance for Controlling Asbestos-Containing Materials in Buildings (Purple Book)
      2) USEPA 530-SW-85-007, Asbestos Waste Management Guidance
2. New York State:
   a. Compilation of the Rules and Regulations of the State of New York (NYCRR)
      1) 6 NYCRR, Parts 360 and 364, “Disposal and Transportation” (NYSDEC)
      2) 10 NYCRR, Part 73, “Asbestos Safety Program Requirements” (NYSDOH)
      3) 12 NYCRR, Part 56, “Asbestos”, Industrial Code Rule 56 (NYSDOL)
      4) Guidance Document (AGD-v2.0) on 12 NYCRR, Part 56
   b. Fire Code of New York, 2010 including Technical Bulletins issued by the New York State Department of State
   c. Existing Building Code of New York State 2010, Including Technical Bulletins issued by New York State Department of State.
   d. New York State Department of Environmental Conservation (NYSDEC)
   e. New York State Department of Health (NYSDOH)
   f. New York State Department of Labor (NYSDOL)
   g. New York State Department of State (NYSDOS)
   h. New York State Department of Transportation (NYSDOT)

**DEFINITIONS**

B. See NYSDOL Industrial Code Rule No. 56.

C. See Chapter 2 of the Fire Code, Existing Building Code & Building Code of New York State for other definitions.

**1.04 CONTRACTOR LIABILITY**

A. It is understood and agreed that the handling, removal and disposition of asbestos or asbestos products involves certain health risks which require specific safety measures. Owner and Consultant (Architect/Engineer) shall not be responsible for safety measures on the job, including measures for the protection of employees or other contractors or subcontractors, nor for the protection of the general public. Such responsibility for safety is and shall remain that of Contractor. Therefore, except for claims and damages arising for negligent acts, errors or omissions of Consultant, Contractor agrees to hold harmless, defend and indemnify Owner and Consultant from all claims, suits, expenses, or damages arising from or alleged to arise from exposure to or inhalation of asbestos or asbestos fibers.

**1.05 ENVIRONMENTAL CONSULTANT**

A. An Environmental Consultant will be retained by the Owner under separate contract, to represent the Owner in matters pertaining to the work performed in accordance with these specifications and requirements.

B. The Environmental Consultant is authorized by the Owner to provide monitoring during removal work, to interpret procedures and to enforce provisions of the contract documents and NYS Code Rule 56 pertaining to the removal of ACM.

C. If, in the opinion of the Environmental Consultant, there is a substantial non-conformance with the contract documents and NYS Code Rule 56 and/or a situation presenting a health hazard to workers or to the Owner's employees, the Environmental Consultant will be authorized to stop work.

D. The Environmental Consultant’s role in health and safety matters does not alleviate the Contractor's obligation to comply with all applicable health and safety regulations promulgated by the local state or federal government.

E. The Environmental Consultant will provide Air Monitoring, Project Monitoring, and work area clearance pursuant to requirements of 12 NYCRR Part 56 and 40 CFR 763, Subpart E.
   1. Should any visual clearance or clearance air sample(s) fail to meet clearance criteria, the Contractor will be directed to re-clean the work area and new clearance air samples will be collected. The Contractor will be responsible for any and all costs incurred due to clearance sample failures.

**1.06 SUBMITTALS**

A. Submit in accordance with applicable provisions of the Contract Documents. See Section 01 3300 - Submittal Procedures, for submittal process.

B. "Submit" means to forward and electronic copy to the Designer of Record and the Environmental Consultant for review.

C. Pre-Work Submittals: Submit a minimum of 10 days prior to the anticipated commencement of the asbestos abatement work and expedite any resubmissions.
   1. Work Plan: Provide a Work Plan that describes the abatement methods to be used, schedule of removal, the type of decontamination units, worker protection plan, and Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) for any chemicals or products to be used to facilitate the work. The Work Plan shall also show the limits of the work area(s), locations of decontamination units, entrance and exit to the work area(s), and exhaust locations.
   2. Submit satisfactory proof to Asbestos Designer of Record and Environmental Consultant that all required permits, licenses and certifications have been obtained, notifications have been issued, and arrangements made for transport and disposal of ACM, including:

Copy of project notifications for the asbestos abatement work, as applicable and required by federal and state regulatory agencies, together with proof of transmittal (i.e., certified mail return receipt).

a. Copy of building occupant notification, as applicable and as required by regulatory agencies.
b. One current copy of each Contractor's asbestos handler's license and one copy of each employee's asbestos handler' s certificate. In addition to the asbestos handler's licenses, the Contractor shall submit each employees "OSHA 10" card. Should Handlers' or Supervisor's documentation expire during the duration of the project, the Contractor shall submit replacement documents.
c. Copy of waste hauler's NYSDEC permit and one copy of NYSDEC Certificate of Approval for the ACM waste disposal site.
d. Submit documentation indicating that all employees have had instruction on the hazards of asbestos exposure, on use of fitting of respirators, on protective dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures.
e. Submit documentation certifying that all workers employed in asbestos related aspects of the job have had medical examinations as prescribed by the OSHA regulations and have been found fit to perform work while wearing a respirator. This certification is to be signed by a physician indicating that he has reviewed the relevant medical records and that they support the certification. Medical records are not to be submitted and will not be accepted.
f. Submit manufacturer's certification that vacuums, ventilation equipment and other equipment required to contain airborne fibers, conform to ANSI Z9.2.
g. Establish a manifest system that accounts for all asbestos waste. The manifest system shall be described in writing and will be subject to the approval of the Environmental Consultant. Copies of the written description and any receipts generated during the handling and disposal process shall be provided to the Owner. The Contractor must be able to demonstrate custody over all asbestos waste from the time it is removed from the work area until it is deposited at the landfill.

D. Project Close-out Submittals: Within 30 days of project completion, and prior to final payment, submit a closeout package to include:
1. Copy of final project notifications.
2. Copy of Contractor asbestos license and certifications for employees involved in the project.
3. Copy of Haulers Permit.
4. Copy of daily work area entry logs.
5. Copy of laboratory reports for personal air monitoring.
6. Copy of asbestos disposal manifests completed by all parties, for each phase of work as applicable.
7. Copy of record drawing indicating locations type, and quantities of ACM removed.

**PART 2 PRODUCTS**

**2.01 PROJECT LOG BOOK**

A. Provide a permanently bound project log book. The log book shall contain, on the title page, the project name; name, address, and telephone number of Owner; name, address, and telephone number of Consultant; name, address, and telephone number of the Contractor; and emergency numbers, including, but not limited to, local Fire/Rescue Department.

B. Record all entries into the log with non-washable, permanent ink. Under no circumstances shall pencil entries be permitted.

C. Ensure that all persons entering and exiting the work area sign the log and include name, employer, NYSDOL certification number, and time of entrance and exiting.

D. Ensure that the Project Supervisor documents all work performed daily and notes all visual assessments required by 12 NYCRR Part 56 (e.g., testing and inspection of barriers and enclosure by smoke testing, negative air systems, and manometer readings).

## 2.02 PERSONAL PROTECTIVE EQUIPMENT

A. Comply with applicable OSHA regulations and procedures for selection and use of personal protective equipment (PPE).

B. The minimum PPE is Level D Modified (hard hat, safety glasses, and steel-toed boots), at all times at the project site both inside and outside the work areas. Additional PPE is required to reduce exposure to asbestos, including the following:
   1. Respiratory Protection
      a. Select respirators from those approved by the NIOSH, Department of Health and Human Services.
      b. Ensure that respirators and filters are selected, used, maintained, and stored pursuant to an established respiratory protection program, pursuant to 29 CFR 1910.134.
      c. Provide for surveillance of working conditions to ensure the selected respirator provides adequate protection, as defined in 29 CFR 1926.1101.
   2. Disposable Protective Clothing
      a. Provide disposable protective whole body clothing, head coverings, plastic or rubber gloves, and foot coverings to personnel utilized during the project. Cloth gloves may be worn inside the plastic or rubber gloves for comfort, but shall not be used alone. Secure sleeves at the wrists, and foot coverings at the ankles, by the use of tape, or provide disposable coverings with elastic wrists or tops.

C. Provide workers and authorized visitors with suitable protective clothing, headgear, eye protection, and footwear whenever they enter the work area.

## 2.03 SIGNS AND LABELS

A. Provide warning signs and barrier tapes at all approaches to the work area. Locate signs at such distance that personnel may read the sign and take the necessary protective steps required before entering the area.

B. Provide danger signs in vertical format conforming to 29 CFR 1926.1101, minimum size of 20 inches by 14 inches, and displaying the following legend:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA

C. Provide 3-inch wide red barrier tape printed with black letters, “DANGER ASBESTOS REMOVAL”. Locate barrier tape across all corridors, entrances, and across routes to each asbestos work area. Install tape 3 to 4 feet above finish floor.

D. Provide asbestos danger labels affixed to all asbestos materials, scrap, waste, debris, and other products contaminated with asbestos. Labels shall state the following.

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

E. Provide the following asbestos label, of sufficient size to be clearly legible, for display on waste containers (bags or drums) that will be used to transport asbestos contaminated material in accordance with 49 CFR Parts 171 and 172. Labels shall state the following.

RQ HAZARDOUS SUBSTANCE
SOLID, NOS
FORM E, NA 9188
ASBESTOS

F. Generator identification information shall be affixed to each waste container, indicating the following and printed in indelible ink.

Generator Name: Port Jervis City School District
Facility Building Name: Port Jervis High or ASK Elementary School
Facility Address: Port Jervis, New York
Date: MM/DD/YYYY

**2.04 POLYETHYLENE SHEETING**

A. Unless otherwise indicated, utilize polyethylene sheeting that is at least 6 mil fire retardant sheeting.

B. Utilize at least 6 mil opaque fire retardant plastic sheeting for decontamination enclosure systems.

**2.05 HEPA VACUUM EQUIPMENT**

A. Conduct all vacuuming using HEPA-filter equipped industrial vacuums conforming to ANSI Z9.2.

B. Provide tools and specialized equipment, including scraping nozzles with integral vacuum hoods connected to a HEPA vacuum with flexible hose.

**2.06 DISPOSAL BAGS, DRUMS, AND CONTAINERS**

A. Provide 6 mil polyethylene disposal bags printed with asbestos caution labels, and imprinted with USDOT required markings.

B. Provide 30- or 55-gallon capacity fiber or metal drums capable of being sealed air- and water-tight if asbestos waste has the potential to damage or puncture disposal bags. Affix asbestos caution labels on lids and at one-third points around drum circumference to assure ready identification.

C. Label containers and bags with the name of the waste generator and the location at which the waste was generated, in accordance with 40 CFR 61 – NESHAPS.

D. Label containers and bags with the date moved from the waste decontamination enclosure to the waste transport container, in accordance with 12 NYCRR 56, Subpart 8.9(C)(3).

E. Do not use labeled ACM waste containers or bags for non-ACM waste or trash. Any material placed in labeled containers or bags, whether turned inside out or not, will need to be handled

and disposed of as ACM waste.

### 2.07 SURFACTANT (AMENDED WATER)

A. Wet all ACM prior to removal with surfactant mix, and apply in accordance with manufacturer's printed instructions.

### 2.08 POWER TOOLS

A. Ensure that any power tools used to drill, cut into, or otherwise disturb asbestos material is manufacturer equipped with HEPA filtered local exhaust ventilation.

### 2.09 WATER AND ELECTRICAL

A. Coordinate water and electrical service with the Owner prior to initiation of abatement activities. Verify suitability and location of all connections.

### 2.10 OTHER PRODUCTS OR MATERIALS

A. Ensure that other products or materials required for use during abatement activities are in compliance with local, state, and federal codes and regulations, if applicable. Furnish and utilize industry standard equipment and materials. Do not furnish equipment or materials that have been modified or altered in such a manner to violate local, state, and/or federal codes and regulations, or presents unnecessary health and safety risks.

## PART 3 EXECUTION

### 3.01 NOTICES

A. Provide notification of intent to commence asbestos abatement activities as indicated below.
   1. At least 10 working days prior to beginning abatement activities, send written notification to:

      United States Environmental Protection Agency
      National Emissions Standards for Hazardous Air Pollutants Coordinator
      26 Federal Plaza
      New York, New York 10007

   2. At least 10 calendar days prior to beginning abatement activities, send written notification to:

      New York State Department of Labor
      Division of Safety and Health, Asbestos Control Program
      State Office Campus
      Building 12 – Room 454
      Albany, New York 12240

B. Send notifications to regulatory agencies via mail or package delivery service that will provide proof of delivery and receipt.

C. Post and/or provide Building Occupant Notification at least 10 calendar days prior to beginning abatement activities, as required by 12 NYCRR Part 56. The posting must include the following information.
   1. The locations of the abatement project.
   2. The amounts and types of ACM being abated.
   3. The commencement and completion dates of the project.
   4. The name, address, and asbestos license number of the Asbestos Abatement Contractor.
   5. The name, address, and license number of the Asbestos Abatement Project Monitor.
   6. The name, address, and NYSDOH ELAP number of the laboratory providing analytical services.

**3.02 PERSONAL PROTECTIVE EQUIPMENT**

A. Refer to Article 2.02 for applicable PPE requirements.

B. Ensure that respirators are worn until outside the decontamination room.

C. Ensure that disposable protective clothing is donned upon entering the decontamination room and before entering the work area, and street clothes are placed in a storable locker or bin. Ensure that workers exiting the work area immediately remove protective clothing and place the waste into sealable containers.

**3.03 PERSONAL AIR MONITORING**

A. Conduct requisite personal air monitoring pursuant to the requirements of 29 CFR 1926.1101, at a minimum. Verify compliance with applicable personal exposure and excursion limits.

**3.04 PROJECT SUPERVISOR**

A. Designate a full-time Project Supervisor, who meets the following qualifications.
   1. The Project Supervisor must hold a current New York State certification as an Asbestos Contractor Supervisor.
   2. The Project Supervisor Project Supervisor must meet the requirements of a "Competent Person", as defined by OSHA 1926.1101, and have a minimum of 2 years experience as a Supervisor.
   3. The Project Supervisor must be able to speak, read, and write English fluently, as well as communicate in the primary language of the Workers.

B. Ensure the Project Supervisor is on-site at all times during abatement work, until the Project is complete. Work will be stopped if the Project Supervisor is not present on-site. The Project Supervisor is responsible for the performance of the work and will be required to represent the Contractor in all respects at the Project site. The Supervisor will be the primary point of contact for the Asbestos Abatement Project Monitor. The Project Supervisor cannot be removed from the Project without the written consent of the Owner. The Project Supervisor will be removed from the Project, if so requested, by the Owner.

C. Ensure the Project Supervisor maintains the Project Log Book in accordance with 12 NYCRR 56, Subpart 7.3, and as described in Article 2.01.

**3.05 MEDICAL REQUIREMENTS**

A. Comply with medical examination and recordkeeping requirements, and maintain a medical surveillance program, pursuant to requirements of 29 CFR 1910.1001 and 29 CFR 1926.1101.

**3.06 TRAINING**

A. As required by applicable regulations, prior to assignment to asbestos work, instruct each employee with regard to the hazards of asbestos, safety and health precautions, and the use and requirements of protective clothing and equipment.

B. Maintain an established respirator program, as required by ANSI Z88.2, 29 CFR 1910.134, and 29 CFR 1926.1101. Comply with requirements for respirator training and fit testing.

C. Ensure that all Workers and Supervisors have successfully completed training and received appropriate certifications, in accordance with NYSDOL and NYSDOH requirements.

**3.07 PERSONAL AIR MONITORING**

A. Personal air monitoring required by the OSHA is the responsibility of the Contractor, not the Owner or Owner’s representative.

**3.08 ON-SITE DOCUMENTATION**

A. Maintain the following submittals, documentation, and postings on-site during abatement activities, at a location approved by the Asbestos Abatement Project Monitor.
   1. Valid Contractor license issued by the NYSDOL.
   2. Worker certification, training, and medical surveillance records
      a. Current New York State Asbestos Handler certification cards for each person

employed in the removal, handling, or disturbance of asbestos
   b. Evidence that Workers have received proper training required by the regulations and the medical examinations required by OSHA 29 CFR 1926.1101
   c. Documentation that Workers have been fit tested specifically for respirators used on the project
   d. Workers Acknowledgment Statements signed by each employee stating that the employee has received training in the proper handling of ACM; understands the health implications and risks involved; and understands the use and limitations of the respiratory equipment to be used
3. Daily OSHA personal air monitoring results
4. NYSDOH ELAP certification for the laboratory that will be analyzing the OSHA personal air samples
5. NYSDEC Waste Transporter Permit
6. Contract Documents (Project Manual and Contract Drawings)
7. Notifications and variances (site-specific) – ensure the most up-to-date notifications and variances are on-site
8. Applicable regulations
9. Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) of supplies/chemicals used on the project
10. Approved Abatement Work Plan
11. List of emergency telephone numbers
12. Waste disposal log
13. Project log book

**3.09 TEMPORARY UTILITIES**

A. Shut down and lock out all electrical power to the asbestos abatement work area.

B. Provide temporary 120-240 volt, single phase, three-wire, 100 amp electric service with ground fault circuit interrupters (GFCI) for all electric requirements within the asbestos abatement work area.
   1. Where available, obtain a power supply from the Owner's existing system. Otherwise, provide power from other sources (i.e., generator).
   2. Provide temporary wiring and "weatherproof" receptacles in sufficient quantity and location to serve all HEPA equipment and tools.
   3. Provide wiring and receptacles, as required by the Asbestos Abatement Project Monitor, for air sampling equipment.
   4. Supply all power to the work area from outside the area through GFCI at the source.

C. Provide temporary lighting with "weatherproof" fixtures for the work area, including decontamination chambers.
   1. Maintain the work area in an illuminated condition at all times during work.
   2. Provide lighting, as required by the Asbestos Abatement Project Monitor, for performance of required visual assessments.

D. All temporary devices and wiring used in the work area must be capable of withstanding decontamination procedures, including HEPA vacuuming and wet wiping.

E. Utilize domestic water services, if available, from the Owner's existing system. Provide hot water heaters with sufficient capacity to meet project demands.

**3.10 DECONTAMINATION ENCLOSURES AND WORK AREA PREPARATION**

A. The work area must be vacated by building occupants prior to decontamination enclosure construction and work area preparation.

B. All demolition necessary to access ACM for removal must be conducted within negative pressure enclosures by licensed asbestos handlers. Demolition debris must be disposed of as asbestos waste.

C. Provide a personal decontamination enclosure contiguous to each work area. The following conditions apply for the construction of a personal decontamination enclosure.

1. Utilize a decontamination enclosure that is attached to the work area and fully framed and sheathed to prevent unauthorized entry.
2. For large asbestos projects, provide access to the work area from the clean room through an airlock to the shower, followed by an airlock to the equipment room to the work area. For small asbestos projects, provide access to the work area from the clean room, to the shower, and through the equipment room to the work area. Each airlock must be a minimum of 3 feet from door to door.
3. Cover the decontamination enclosure ceiling and walls with one layer of polyethylene sheeting. Utilize two layers of reinforced polyethylene sheeting to cover the floor.
4. Establish a triple layer of polyethylene sheeting at the decontamination chamber doorways, weighted to ensure a tight seal of the enclosure. Prior to establishing doorway seals, move all required tools, scaffolding, and equipment into the work area.
5. Provide a lockable door for the entrance to the clean room. The clean room must be sized to accommodate all full-shift Workers and the Asbestos Project Monitor. The minimum dimensions of the clean room must be 32 square feet for every 6 full-shift Workers, and 6 feet in height. Provide suitable lockers for storage of Workers' street clothes. Provide for storage of respirators, along with replacement filters and disposable towels.
6. Provide a temporary shower, with individual hot and cold water supplies and faucets. Provide a sufficient supply of soap and shampoo. There must be at least 1 shower for every 6 full-shift abatement Workers. Construct the shower room in such a way so that travel through the shower chamber will be through the shower. The shower must not be able to be bypassed.
7. Drain, collect, and filter shower water through a system with at least a 5.0 micron particle size collection capability, containing a series of several filters with progressively smaller pore sizes to avoid rapid clogging of the system. Discharge the filtered wastewater in accordance with applicable codes, and dispose of the contaminated filters as asbestos waste.
8. The equipment room is to be used for the storage of tools and equipment. Place a walk-off pan filled with water in the work area outside the equipment room for workers to clean foot coverings when leaving the work area. Place a labeled 6 mil plastic ACM waste bag, for collection of contaminated clothing, in this room.
9. At a minimum, clean and disinfect the personal decontamination enclosure at the end of each work shift and as otherwise directed by the Asbestos Project Monitor.

D. Provide a waste decontamination enclosure contiguous to each work area. The following conditions apply for the construction of a waste decontamination enclosure.
1. The decontamination enclosure must be attached to the work area and not located within it. The decontamination enclosure must be fully framed and sheathed to prevent unauthorized entry.
2. Construct the waste decontamination enclosure system to include a washroom/cleanup room to the work area and an airlock doorway to the holding area. The airlock must be a minimum of 3 feet from door to door. Provide a lockable door for the entrance to the holding area.
3. Cover the decontamination enclosure ceiling and walls with one layer of polyethylene sheeting. Utilize two layers of reinforced polyethylene sheeting to cover the floor.
4. Establish a triple layer of polyethylene sheeting at the decontamination chamber doorways, weighted to ensure a tight seal of the enclosure. Prior to establishing doorway seals, move all required tools, scaffolding, and equipment into the work area.
5. Where there is only one egress from the work area, the holding area of the waste decontamination enclosure system may branch off from the personal decontamination enclosure equipment room, which may then serve as the waste wash room.

E. The following conditions apply to work area preparation procedures.
1. Post asbestos danger signs at all approaches to the asbestos abatement work area. Post all emergency exit signs only on the work area side at the containment, and post with asbestos caution signs on the non-work area side. Provide all non-work area stairs and corridors accessible to the asbestos abatement work area with warning tapes at the base of stairs and beginning of corridors. Utilize warning tape in addition to caution signs.
2. Shut down and lock out the building heating, ventilation, and air conditioning (HVAC) and

electrical systems. Provide temporary electric power and lighting, as specified in Article 3.8.

3. Pre-clean all surfaces and objects within the work area, using HEPA vacuuming and/or wet wiping methods. Dry sweeping and any other methods that raise dust are prohibited. ACM must not be disturbed during pre-cleaning.
4. For movable objects within the work area, clean via HEPA vacuum and/or wet wipe and remove from the work area.
5. For all non-movable equipment in the work area, completely cover with 2 layers of polyethylene sheeting, that is secured in place with duct tape and/or spray adhesive.
6. Provide enclosure of the asbestos abatement work area necessary to isolate it from unsealed areas of the building, in accordance with the approved Asbestos Abatement Work Plan, and as specified herein.
7. Seal off all openings, including, but not limited to, windows, diffusers, grills, electrical outlets and boxes, doors, floor drains, and any other penetrations of the work area enclosure, using 2 layers of polyethylene sheeting to form a critical barrier.
8. Provide temporary framing and sheathing at openings larger than 32 square feet that form the limits of the asbestos abatement work area. Sheathing thickness must be a minimum of 3/8-inch, and all sheathing shall be caulked and the work area side sealed with 2 layers of polyethylene sheeting to form an isolation barrier.
9. Secure sheeting with spray adhesive and then sealed with duct tape. Ensure all joints in polyethylene sheeting overlap a minimum of 12 inches.
10. Frame out emergency exits. Provide double-layered polyethylene sheeting and tape seal opening. Post as emergency exits only. Within the work area, mark the locations and directions of emergency exits throughout the work area, using exit signs and/or duct tape.
11. Remove all items attached to, or in contact with, ACM only after the work area enclosure is in place. HEPA vacuum and wet wipe with amended water all removed items prior to removal from the work area and before the start of asbestos removal operations.

## 3.11 WORK AREA ENTRY AND EXIT PROCEDURES

A. Access to and from the asbestos abatement work area is permitted only through the personal decontamination enclosure, unless otherwise stipulated in 12 NYCRR and/or a site-specific or applicable variance.

B. Workers must sign the entry/exit log upon every entry and exit.

C. The following procedures must be followed when entering the work area.
   1. Before entering the work area, Workers must proceed to the clean room, remove all street clothes, and don protective clothing, equipment, and respirators.
   2. Workers must proceed from the clean room, through the shower room and the equipment room, and into the work area.

D. The following procedures must be followed when exiting the work area.
   1. Before leaving the work area, remove gross asbestos contamination by brushing, wet cleaning, and/or HEPA vacuuming.
   2. In the equipment room, Workers are to remove disposable clothing, but not respirators, and place clothing in plastic disposal bags for disposal as contaminated debris prior to entering the shower room.
   3. Workers are to shower thoroughly while wearing respirators, and then wash respirator with soap and water prior to removal.

E. Upon exiting the shower, Workers are to don new disposable clothing if the work shift is to continue or street clothes to exit the area. Under no circumstances shall Workers enter public, non-work areas in disposable protective clothing.

## 3.12 NEGATIVE AIR PRESSURE FILTRATION SYSTEM

A. Provide a portable asbestos filtration system that develops a minimum pressure differential of negative 0.02 inches of water column within all full enclosure areas relative to adjacent unsealed areas, and that provides a minimum of 4 air changes per hour in the work area during abatement.

B. Such filtration systems must be operated 24 hours per day during the entire Project, until the final cleanup is completed and satisfactory results of the final air samples are received from the

laboratory.

C. Ensure the system includes a series of pre-filters and filters to provide HEPA filtration of particles down to 0.3 microns at 100% efficiency and below 0.3 microns at 99.97% efficiency. Provide sufficient replacement filters to replace pre-filters every 2 hours, secondary pre-filters every 24 hours, and primary HEPA filters every 600 hours of operation.

D. A minimum of one additional filtration unit of at least the same capacity as the primary unit(s) must be installed and fully functional to be used during primary unit(s) filter changing and in case of primary failure. Install at least one back-up unit for every five primary units.

E. Upon electric power failure or shut-down of any filtration unit, all abatement activities must stop immediately and only resume after power is restored and all filtration units are fully operating. For shut-downs longer than one hour, all openings into the work area, including the decontamination enclosures, must be sealed.

F. Provide a manometer with a chart recorder to measure and record negative pressure differential across the work area barriers without interruption 24 hours per day for all OSHA Class I friable asbestos projects.

## 3.13 REMOVAL OF ASBESTOS-CONTAINING MATERIALS

A. Remove ACM in accordance with the Contract Documents and the approved Asbestos Abatement Work Plan.

B. Should the area beyond the work area become contaminated with ACM or elevated fiber levels, immediately stop work and institute emergency procedures. Contaminated non-work areas must be isolated and subsequently decontaminated in accordance with procedures established for asbestos removal. All costs incurred from decontaminating such non-work areas and the contents thereof will be borne solely by the Contractor, at no additional cost to the Owner.

C. Perform all asbestos removal work using wet removal procedures. Mix and apply surfactant in accordance with manufacturer's written instructions. Dry removal procedures are not permitted.

D. Sufficiently wet asbestos materials with a low pressure, airless fine spray of amended water to ensure full penetration prior to ACM removal. Re-wet materials that do not display evidence of saturation.

E. Employ a sufficient number of Workers to continuously apply amended water while ACM is being removed. Contain excess water within the work area at all times, and continuously containerize through the use of a HEPA equipped wet/dry vacuum or other adequate methods.

F. Perform cutting, drilling, abrading, or any penetration or disturbance of ACM in a manner to minimize the dispersal of asbestos fibers into the air. Use equipment and methods specifically designed to limit generation of airborne asbestos particles. All power-operated tools used must be provided with HEPA equipped filtered local exhaust ventilation.

G. Place all removed material into 6 mil plastic disposal bags or other suitable container upon detachment from the substrate or whenever there is enough accumulation to fill a single bag or container. Maintain work area surfaces free of accumulation of asbestos debris.

H. Power or pressure washers are not permitted for asbestos removal or clean-up procedures.

I. Encapsulate all open ends of pipe and duct insulation not scheduled for removal, using lag cloth.

J. All construction and demolition debris determined by the Asbestos Abatement Project Monitor to be contaminated with asbestos must be handled and disposed of as asbestos waste.

K. The use of metal shovels, metal dust pans, etc. are not permitted inside the work area.

## 3.14 EQUIPMENT AND WASTE CONTAINER DECONTAMINATION AND REMOVAL PROCEDURES

A. Clean external surfaces of contaminated containers and equipment by wet cleaning and/or HEPA vacuuming in the work area before moving such items into the waste decontamination enclosure system airlock by persons assigned to this duty. The work area personnel are not to enter the airlock.

B. Remove the containers and equipment from the airlock by personnel stationed in the wash room during waste removal operations. Clean the external surfaces of containers and equipment a second time by wet cleaning.

C. The cleaned containers of asbestos material and equipment are to be dried of any excessive pooled or beaded liquid, placed in uncontaminated plastic bags or sheeting, dependent upon the physical characteristics of the item, and sealed airtight.

D. Transfer the clean re-containerized items into the airlock that leads to the holding area. Workers in the wash room are not to enter this airlock or the work area until waste removal is finished for that period.

E. Transfer containers and equipment from the airlock and into the holding area by personnel dressed in clean personal protective equipment, and who have entered from uncontaminated areas.

F. Place the cleaned containers of asbestos material and equipment in water tight carts with doors or tops that are to be closed and secured. Maintain these carts in the holding area pending removal. Ensure the carts are wet cleaned and/or HEPA vacuumed at least once each day.

G. Secure the exit from the decontamination enclosure system to prevent unauthorized entry.

H. Where the waste removal enclosure is part of the personal decontamination enclosure, ensure waste removal does not occur during shift changes or when otherwise occupied. Implement precautions to prevent short circuiting and cycling of air outward through the shower and clean room.

**3.15 WORK AREA DECONTAMINATION**

A. Following completion of gross abatement and after all accumulations of asbestos waste materials have been containerized, perform decontamination procedures, as specified in 12 NYCRR 56, Subpart 9.1, unless modified by a site-specific or applicable variance.

B. Secure the exit from the decontamination enclosure system to prevent unauthorized entry.

C. Where the waste removal enclosure is part of the personnel decontamination enclosure, ensure waste removal does not occur during shift changes or when otherwise occupied. Implement precautions to prevent short circuiting and cycling of air outward through the shower and clean room.

D. After isolation and critical barriers are removed, the Asbestos Abatement Project Monitor will inspect the work area for cleanliness. If necessary, perform additional cleaning, as directed by the Asbestos Abatement Project Monitor.

E. As a result of any unsatisfactory visual assessment by the Asbestos Abatement Project Monitor, or should final clearance air sampling results indicate high fiber levels, the affected areas will be required to be cleaned or re-cleaned at no additional expense to the Owner.

**3.16 TENT ENCLOSURES (IF APPLICABLE)**

A. Tent enclosures may only be used in areas specifically permitted by 12 NYCRR Part 56 or a project site-specific variance issued by the NYSDOL.

B. Restrict access to the immediate area where tent removal procedures are taking place using barrier tape and/or construction barriers, and post caution signs.

C. Remote personal and waste decontamination enclosure systems are not to be constructed or utilized. The personal and waste decontamination enclosure systems must be connected to the work area.

D. Pre-clean the work area. For all objects and equipment that will remain in the restricted area during abatement, seal with 2 layers polyethylene sheeting and tape.

E. For the tent, utilize a single-use barrier constructed with a rigid frame and at least 2 layers of polyethylene sheeting, unless 1 layer of polyethylene sheeting is otherwise permitted by 12

NYCRR 56 and/or a site-specific variance. Ensure all seams are sealed airtight using duct tape and/or spray adhesive.

F. During removals, utilize negative pressure filtration units to maintain negative air pressure inside the tent.

G. Perform ACM removal following procedures described in Article 3.13.

H. Place waste material in properly labeled 6 mil plastic bags or other appropriate containers. Ensure the outside of the bags or containers are wet wiped and/or HEPA vacuumed before being passed into the waste decontamination enclosure system for double-bagging. Utilize watertight carts for transportation of waste bags and containers outside the work area.

I. Subsequent to completion of gross abatement and after all accumulations of asbestos waste materials have been containerized, implement the following decontamination procedures.
   1. All bagged asbestos waste and unnecessary equipment must be decontaminated and removed from the work area.
   2. All surfaces in the work area must be wet cleaned. A wet-purpose shop vacuum may be used to pick up excess liquid, and must be decontaminated prior to removal from the work area.
   3. The Asbestos Abatement Project Monitor will conduct a visual assessment of the work area for cleanliness and completion of abatement.
   4. Apply a thin coat of encapsulant to all surfaces in the work area that were not the subject of removal. In no event is encapsulant be applied to any surface that was the subject of removal prior to obtaining satisfactory air monitoring results.
   5. After the encapsulant has dried, aggressive final clearance air sampling will be conducted by the Asbestos Abatement Project Monitor.
   6. Upon receipt of satisfactory final clearance air sampling results, collapse the tent into itself, place in suitable disposal bags, and transport to the waste decontamination enclosure. Remove isolation and critical barriers.

**3.17 GLOVEBAG REMOVAL (IF APPLICABLE)**

A. In addition to conformance with applicable regulations and variances, glovebag removals are only permitted to be conducted within tent enclosures complying with these specifications. Conduct removal and disposal in conformance with all regulatory conditions.

B. Restrict access to the immediate area where tent/glovebag removal procedures are taking place using barrier tape and/or construction barriers, and post caution signs.

C. Pre-clean the work area. Seal all objects and equipment that will remain in the restricted area during abatement, utilizing 2 layers of polyethylene sheeting and tape.

D. Utilize commercially available glovebags of at least 6 mil thickness. Use shall be in accordance with the manufacturer's instructions and the following minimum requirements.
   1. Cut the sides of the glovebag to fit the size of pipe being removed. Insert tools into the attached tool pocket.
   2. Place the glovebag around the pipe, and fold and seal the open edges with staples and duct tape. Ensure the glovebag is also sealed at the pipe to form a tight seal.
   3. Install openings in the glovebag for the wetting tube and HEPA vacuum hose. Seal the opening to form a tight seal.
   4. Conduct smoke testing for all glovebags, with verification by the Asbestos Abatement Project Monitor before removal operations commence. Glovebags that do not pass the smoke test will be required to be resealed and retested.
   5. Commence removal after first wetting the materials to be removed. Ensure ACM is continuously wetted. After removal of the ACM, scrub or brush the piping so that no visible ACM remains. Encapsulate any open ends of pipe insulation to remain.
   6. After the piping is cleaned, wash down the inside of the glovebag and remove the wetting tube. Collapse the glovebag using the HEPA vacuum. With the ACM at the bottom of the bag, twist and seal with the tape.
   7. Place a disposal bag around the glovebag, and detach from the pipe. Seal the disposal bag and transport to the decontamination enclosure.

## 3.18 RESTORATION OF FACILITIES

A. Remove temporary utilities upon completion of abatement activities and notification of compliance with clearance criteria. Disconnect all temporary power, remove power lockouts, and restore power. Remove all temporary plumbing. Restore area designated for these facilities to its original condition or better.

## 3.19 DISPOSAL OF ASBESTOS WASTE

A. Store, transport, and dispose of all asbestos waste in accordance with the following regulations, at a minimum.
   1. 6 NYCRR Parts 360 and 364
   2. 40 CFR 61 – NESHAPS
   3. USEPA Asbestos Waste Management Guidance EPA/530-SW85
   4. 12 NYCRR 56, Section 10

B. The following conditions apply for transportation of waste and the selected disposal site.
   1. Hauler and disposal site are subject to pre-approval by the Owner or Owner's designated representative.
   2. Provide 24-hour notification prior to removing any waste from the site. Remove waste from the site only during normal working hours, unless otherwise specified. No waste is to be taken from the site, unless the Asbestos Abatement Contractor and Asbestos Abatement Project Monitor authorizes the release of the waste, as described herein.
   3. Coordinate with the Hauler to provide the estimated date and time of arrival at the disposal site.
   4. Upon arrival at the project site, the hauler must possess and present to the Asbestos Abatement Project Monitor a valid NYSDEC Part 364 Asbestos Hauler's Permit.
   5. Coordinate with the Hauler to inspect material in the transport container prior to the Hauler taking possession and signing the asbestos waste manifests.
   6. Unless specifically approved by the Owner or Owner's designated representative, do not permit any off-site transfers of the waste or allow the waste to be transported or combined with any other off-site asbestos material. The hauler must travel directly to the disposal site, as identified on the notifications, with no unauthorized stops.

C. The following conditions apply to waste storage containers:
   1. Ensure that all waste containers are fully enclosed and lockable (i.e, enclosed dumpster, trailer, etc.). No open containers will be permitted on-site (i.e., open dumpster with canvas cover, etc.), unless specifically permitted by an applicable or site-specific variance.
   2. Verify that the truck tags (license plates) match that listed on the 6 NYCRR Part 364 permit.
   3. Plasticize and seal the container with a minimum of 2 layers of polyethylene sheeting on the sides and floor. Once on site, keep the waste container locked at all times, except during load out. Do not use the waste container for storage of equipment or supplies.
   4. While on-site, label the container with USEPA danger signage in accordance with Paragraph 2.3(D).
   5. Stencil the NYSDEC Asbestos Hauler's Permit number on both sides and the back of the container.
   6. Do not permit the container to be loaded unless it is properly plasticized, has the appropriate danger signage affixed, and has the permit number appropriately stenciled on the container.

D. The following conditions apply to the Owner's and Hauler's asbestos waste manifests:
   1. Utilize an asbestos waste manifest in conjunction with the asbestos hauler's manifest.
   2. Verify the manifests have the appropriate signatures prior to any waste being removed from the site.
   3. Retain copies of the completed hauler's manifest.
   4. Coordinate with the disposal facility to ensure return of the original hauler's manifest after waste is disposed of.
   5. Forward copies of hauler's manifest to the Abatement Project Monitor within 14 calendar days of the waste container being removed from the site.

6. Utilize waste disposal logs. Maintain this log on-site at all times. Submit originals of all waste disposal manifests, seals, and disposal logs to the Owner with the final close-out documentation.

**END OF SECTION**

**SECTION 02 8313**

**LEAD ABATEMENT AND HAZARD CONTROL ACTIVITIES**

## PART 1 GENERAL

### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 specification sections shall apply to work of this section.

### 1.02 SUMMARY

A. This Section describes requirements for work activities affecting building materials in proposed renovation areas that are impacted with lead-based paint (LBP) or lead-containing materials (LCM).
   1. LBP is defined as paint or other surface coating that has a lead content greater than 5,000 parts per million (or 0.5 percent by weight or 1 milligram per square centimeter). LCM is herein defined as paint or other surface coating that contains a detectable concentration of lead, but is not classified as LBP based on the concentration being below the 5,000 parts per million (or 0.5 percent by weight or 1 milligram per square centimeter). For purposes of this project, defined LBP or LCM may include caulk, ceramic tiles, and/or mastics/adhesives in addition to “paint” coatings.
   2. For purposes of this project, work activities affecting LBP will be subject to EPA requirements for LBP abatement at “target housing” or a “child-occupied facility.” Work activities affecting LCM, as defined herein, are not subject to LBP abatement requirements, but shall be managed, handled, and disposed of in accordance with applicable lead hazard control methods.
   3. The Contractor shall furnish all labor, materials, facilities, equipment, installation services, employee training, notifications, permits, licenses, certifications, and agreements necessary to perform the specified work. Work shall be performed in accordance with the contract documents, the latest regulations from the Occupational Safety and Health Administration (OSHA), the U.S. Environmental Protection Agency (EPA), the State of New York, and all other applicable federal, state and local agencies. Whenever the requirements of the above references conflict or overlap, the most stringent provision shall apply.
   4. Work that will impact LBP or LCM must be identified and coordinated relative to the full scope of work for the project.
   5. Verify the quantities of materials to be removed and extent of LBP or LCM to be abated/mitigated, relative to the requirements described herein and the full scope of work for the project, as the basis for the bid. Drawings depict the areas in which the work will be conducted, and show the general location of identified LBP and LCM, as determined from the hazardous materials surveys and directed lead testing performed for the site.
   6. The Contractor and workers must have appropriate certifications for conducting work activities that affect LBP or LCM.
      a. For LBP abatement, the Contractor must have a current EPA lead certification, and all Workers and Supervisors must have successfully completed all courses that are required to comply with existing EPA requirements for lead abatement activities.
      b. For work activities affecting LCM, the workers must have lead awareness training prior to commencement of the work and must be trained in accordance with requirements of OSHA Regulations 29 CFR 1926.62 and 1919.120.
   7. Painted surfaces that have not been tested must be assumed to contain lead, unless proven otherwise through sampling and analysis or testing with an x-ray fluorescence (XRF) analyzer.

B. Coordinate with the Owner or the Owner's designated representative for the removal of movable furnishings and equipment, including miscellaneous small items such as tools, stored materials, files, and records, prior to commencing work in each established work area.

C. Perform all work in such a manner as to minimize the risk of exposure to personnel, to prevent exposure to occupants, and to minimize the risk of release of lead or lead-containing debris to the environment. Heating these materials may produce fumes that are highly toxic to Workers and harmful to the environment. Removal of these materials from the structure may produce dust and chips that must be collected and contained for subsequent management and disposal.

D. Perform all work in strict accordance with the Contract Documents and all governing codes, rules, and regulations. The information contained herein will be considered part of the Contract Documents. Where conflicts occur between the Contract Documents and applicable codes, rules, and regulations, the more stringent procedure(s) will apply.

E. Take notice, and make employees aware, of occupational safety hazards associated with the LBP or LCM work and other work being performed on-site. Comply with any site-specific policies or safety training that may be required by the Owner.

F. Protection of Work to Remain: Preserve and protect building materials and finishes, electrical equipment, heating and ventilation equipment, and other components and items present within each work area that is not removed or remediated. Perform work without damage to or contamination of adjacent areas. Where such areas are contaminated, specified procedures for containment must be followed, and contamination must be cleaned up. Where adjacent areas are damaged, restoration must be to original condition.

G. Title to Materials: Waste with lead-containing materials resulting from the work, except as otherwise indicated, will remain the property of the Owner. Disposal and maintaining records of disposal will be the responsibility of the Contractor.

**1.03 REGULATIONS AND CODES**

A. Comply with the codes and standards listed below, except where more stringent requirements are shown and/or specified. Specific regulations, standards, and guidance documents are listed for informational purposes due to relevance to the work described herein. Specific regulations, standards, and guidance documents that are not listed may also be applicable to the work.
   1. Federal:
      a. American National Standard Institute (ANSI)
         1) ANSI Z88.2-80, Practices for Respiratory Protection
      b. Code of Federal Regulations (CFR)
         1) 29 CFR 1910.1200, "Hazard Communication"
         2) 29 CFR 1910.134, "Respiratory Protection"
         3) 29 CFR 1926, "Construction Industry"
            a) 29 CFR 1926.62, "Lead Exposure in Construction"
         4) 40 CFR 260, "Hazardous Waste Management System: General"
         5) 40 CFR 261, "Identification and Listing of Hazardous Waste"
         6) 40 CFR 262, "Standards Applicable to Generators of Hazardous Waste"
         7) 40 CFR 263, "Standards Applicable to Transporters of Hazardous Waste"
         8) 40 CFR 264, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities"
         9) 40 CFR 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities"
         10) 40 CFR 268, "Land Disposal Restrictions"
         11) 49 CFR 171-172, "Transportation Standards"
      c. Occupational Safety and Health Administration (OSHA)
      d. United States Department of Transportation (USDOT)

e. United States Environmental Protection Agency (EPA)
    1) Toxic Substance Control Act (TSCA)
    2) Renovation, Repair, and Painting (RRP) Rule
f. United States Department of Housing and Urban Development (HUD)
    1) "Guidelines for the Evaluation and Control of Lead Based Paint Hazards"

2. New York State:
    a. Compilation of the Rules and Regulations of the State of New York (NYCRR)
        1) 6 NYCRR, Part 360, "Solid Waste Management Facilities"
        2) 6 NYCRR, Part 364, "Waste Transporter Permits"
        3) 6 NYCRR, Part 370, "Hazardous Waste Management System – General"
        4) 6 NYCRR, Part 371, "Identification and Listing of Hazardous Wastes"
        5) 6 NYCRR, Part 372, "Hazardous Waste Manifest System and Related Standards for Generators, Transporters, and Facilities"
        6) 6 NYCRR, Part 373, "Hazardous Waste Management Facilities"
    b. New York State Department of Environmental Conservation (NYSDEC)
    c. New York State Department of Health (NYSDOH)
    d. New York State Department of Transportation (NYSDOT)

## 1.04 ENVIRONMENTAL CONSULTANT

A. An Environmental Consultant will be retained by the Owner under separate contract, to represent the Owner in matters pertaining to the work performed in accordance with these specifications and requirements.

B. The Environmental Consultant is authorized by the Owner to provide monitoring during LBP abatement work, to interpret procedures and to enforce provisions of the contract documents and EPA regulations pertaining to the abatement of LBP.

C. If, in the opinion of the Environmental Consultant, there is a substantial non-conformance with the contract documents and/or a situation presenting a health hazard to workers or to the Owner's employees, the Environmental Consultant will be authorized to stop work.

D. The Environmental Consultant's role in health and safety matters does not alleviate the Contractor's obligation to comply with all applicable health and safety regulations promulgated by the local, state, or federal government.

E. The Environmental Consultant will provide work area clearance pursuant to requirements of 40 CFR 745.227(e)(8).
    1. Should any visual clearance or clearance wipe sample(s) fail to meet clearance criteria, the Contractor will be directed to re-clean the work area and new clearance wipe samples will be collected. The Contractor will be responsible for any and all costs incurred due to clearance sample failures.

## 1.05 SUBMITTALS

A. Submit in accordance with applicable provisions of the Contract Documents. See Section 01 3300 - Submittal Procedures, for submittal process.

B. Pre-Work Submittals: Submit a minimum of 10 days prior to the anticipated commencement of work activities affecting LBP and/or LCM and expedite any resubmissions.
    1. Provide a Work Plan that describes LBP abatement methods and work areas, work procedures and cleaning procedures for work affecting LCM, and procedures for collection and disposal of waste materials to be implemented when working with materials impacted by LBP or LCM. Provide applicable Workers' training and refresher training certifications and copies of fit test and medical clearance records.
    2. Provide an Occupant Protection Plan, applicable to the LBP abatement work, that describes the work practices and precautionary measures that will be utilized at the facility to protect building occupants from lead exposure during abatement activities. The

Occupant Protection Plan can be included as part of the Work Plan submittal described in Subparagraph 1.05(B)(1).

3. Disposal site/landfill permit
4. Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) for proposed detergents or cleaning products, chemical strippers, and/or other products proposed for use during work with LBP or LCM.

C. Close-out Submittals: Within 30 days of project completion, and prior to final payment, submit a closeout package to include:
   1. Copy of laboratory analysis report for waste characterization sampling and analysis, as described in Article 3.08.
   2. Submit originals of all waste disposal manifests, as applicable, and waste disposal receipts within 30 days of transport for waste that includes lead.
   3. Provide a Record Drawing indicating the quantities and location of LBP abatement work.
   4. Certification of LBP Abatement: The Contractor's Supervisor shall certify in writing that all LBP abatement work has been completed in accordance with this specification and all applicable federal and state regulations.

## PART 2 PRODUCTS

### 2.01 PROJECT LOG BOOK

A. Provide a permanently bound project log book to document the LBP abatement work. Include, on the title page, the project name; name, address, and telephone number of Owner; name, address, and telephone number of the Contractor; and emergency numbers, including, but not limited to, local Fire/Rescue Department. Provide a written description of daily activities pertaining to the LBP abatement, locations of completed work, a record of workers engaged in such work, and summary of generated waste and waste disposal log.

B. Record all entries in non-washable, permanent ink.

C. Ensure that all persons entering and exiting the work area sign the log and include name, employer, and time of entrance and exiting.

D. The Lead Supervisor will be responsible to document the information to be provided in the project log book.

### 2.02 PERSONAL PROTECTIVE EQUIPMENT

A. The minimum personal protective equipment (PPE) is Level D Modified (hard hat, safety glasses, and steel-toed boots), at all times at the project site both inside and outside the work areas. Select and use additional requisite PPE, including respiratory protection and disposable protective clothing, pursuant to project conditions and requirements and OSHA regulations and procedures.

B. For use of respiratory protection, ensure that respirators and filters are selected, used, maintained, and stored pursuant to an established respiratory protection program that is compliant with OSHA 29 CFR 1910.134 requirements. Provide for surveillance of working conditions to ensure the selected respirator provides adequate protection, as defined in OSHA 29 CFR 1926.1101.

C. Provide workers and authorized visitors with suitable PPE whenever they enter the work area.

### 2.03 SIGNS AND LABELS

A. Provide warning signs and barrier tapes at all approaches to each LBP abatement work area and at all approaches to work areas where LCM will be disturbed. Locate signs at such distance that personnel may read the sign and take the necessary protective steps required before entering the area. Reference applicable section of 29 CFR 1926 for additional details

pertaining to signage.

B. Provide labels for waste containers in accordance with applicable USEPA, USDOT, and NYSDOT regulations.

**2.04 POLYETHYLENE SHEETING**

A. Unless otherwise indicated, use polyethylene sheeting that is at least 6 mil fire retardant sheeting.

**2.05 HEPA VACUUM EQUIPMENT**

A. Conduct all vacuuming of surfaces within work area using HEPA filter equipped industrial vacuums conforming to ANSI Z9.2.

B. For removal activities that may generate dust, provide tools and specialized equipment with integral vacuum hoods connected to a HEPA vacuum with flexible hose.

**2.06 CLEANING OR PAINT REMOVAL PRODUCTS**

A. Provide products that are considered suitable for the types of surfaces being cleaned or treated. Do not utilize products that could produce noxious fumes, contain methylene chloride, or may result in staining, discoloration, or other damage to the substrate materials.

**2.07 DISPOSAL BAGS, DRUMS, AND CONTAINERS**

A. Provide disposal drums and/or containers, and appropriate labels that comply with applicable USEPA, USDOT, and NYSDOT regulations.

**2.08 WATER AND ELECTRICAL**

A. Coordinate water and electrical service with the Owner prior to initiation of work. Verify suitability and location of all connections.

**2.09 OTHER PRODUCTS AND MATERIALS**

A. For other products or materials that are required for use during work activities, ensure compliance with local, state, and federal codes and regulations, if applicable. Furnish and utilize industry standard equipment and materials. Do not furnish equipment or materials that have been altered in such a manner that violates local, state, and/or federal codes and regulations, or presents unnecessary health and safety risks.

**PART 3 EXECUTION**

**3.01 NOTIFICATION**

A. Notify the Owner or Owner's designated representative a minimum of 5 business days prior to initiating work that will affect LBP or LCM.

B. Provide notification of LBP abatement activities pursuant to 40 CFR Part 745 requirements. Notification must be provided at least 5 business days prior to the start of LBP abatement activities.

**3.02 EMPLOYEE PROTECTION**

A. Comply with all applicable OSHA requirements. Refer to Article 2.02 for details pertaining to PPE.

**3.03 PERSONAL AIR MONITORING**

A. Personal air monitoring required by the OSHA is the responsibility of the Contractor, not the

Owner or Owner's representative.

### 3.04 PROJECT SUPERVISOR

A. Designate a full-time Project Supervisor, with the following minimum qualifications.
   1. The Project Supervisor must have a minimum of 3 years experience with lead safe work practices and performing work per requirements of the OSHA 29 CFR 1926.62 standard.
   2. The Project Supervisor must be able to read and write English fluently, and be able to communicate in the primary language of the workers.
   3. For the LBP abatement work, the Project Supervisor must maintain a current EPA Lead Supervisor certification. The Project Supervisor for the LBP abatement work can be different than the Project Supervisor for work activities affecting LCM.

B. Ensure the Project Supervisor is on-site at all times during work activities that affect LBP or LCM and is responsible for the performance of the work. The designated Project Supervisor will be the primary point of contact relative to the work activities associated with LBP or LCM.

### 3.05 WORK AFFECTING LCM

A. Remove, contain, collect, and dispose of LCM that are disturbed during the project, in addition to dust and debris that are generated during the work activities. Perform work using lead safe work practices and in compliance with applicable federal, state, and local regulations.

B. Work areas involving the renovation, cutting, modification, or other type of activity that would disturb LCM will be considered a hazard area per OSHA 29 CFR 1926 for protection of Workers unless the Contractor has removed the potential sources of airborne lead.

C. Disturbance methods must be performed in a manner that will control lead hazards and limit worker exposure to lead hazards. Ensure that provisions are implemented to minimize the generation of dust during the demolition and removal operations. Wherever possible, remove existing building components without cutting, heating, abrading, or otherwise significantly disturbing the LCM.

D. Utilize work area containment, signage and barriers, lead safe removal and cleaning methods, change areas, showers/wash facilities, employee monitoring, recordkeeping, and other applicable work practices, as necessary to complete the work in compliance with OSHA 29 CFR 1926.62.

E. Ensure that wastes with LCM are properly handled during each project phase, and packaged and maintained in appropriate containers. Implement provisions to prevent lead contamination of the surrounding environment. Provide for sampling and analysis and disposal of waste with lead, as described in Article 3.08.

### 3.06 LBP ABATEMENT

A. Decontamination Enclosures and Work Area Preparation

   1. Construct a decontamination unit immediately outside the LBP abatement work areas.
      a. At a minimum, the decontamination unit must consist of an equipment room, a dirty room, and a wash area in series. Provide a clean area for Workers to change into PPE.
      b. Cover the ceiling and walls of the decontamination unit with 2 layers of 6 mil polyethylene sheeting. Cover the floor with 2 layers of reinforced polyethylene sheeting.
      c. Construct the decontamination unit of a size sufficient to hold the waste containers, and allow workers to apply and remove PPE. Utilize sealable waste containers in this area for contaminated PPE.
      d. Include a wash station with warm water, soap, and towels in the decontamination unit.
      e. Provide lockers or storage bins for Workers to store street clothes when donning PPE.

f. Provide a lockable door.

2. The following conditions apply to interior work area preparation procedures.
   a. Post lead warning signs at all approaches to the lead abatement work area. Post all emergency exit signs only on the work area side of the containment, and post with lead warning signs on the non-work area side. Provide all non-work area stairs and corridors accessible to the lead abatement work area with warning tapes at the base of the stairs and the beginning of the corridors.
   b. If possible, shut down and lock out the building HVAC and electrical systems. Provide temporary electric power and lighting, as applicable.
   c. Pre-clean all surfaces and objects within the work area using HEPA vacuuming. For movable objects, perform HEPA vacuuming and remove from the work area. For non-movable equipment, cover with polyethylene sheeting, at least 6 mil in thickness, and secure in place with duct tape and/or spray adhesive.
   d. Cover the floor surface a minimum of 6 feet beyond the perimeter of surfaces undergoing abatement or a sufficient distance to contain the dust, whichever is greater.
   e. Provide enclosure of the work area necessary to isolate it from unsealed areas of the building.
   f. Seal off all openings, including, but not limited to, windows, diffusers, grilles, electrical outlets and boxes, doors, floor drains, and any other penetrations of the work area enclosure, using 2 layers of at least 6 mil fire retardant polyethylene sheeting to form a critical barrier.
   g. Secure polyethylene sheeting with spray adhesive and then seal with duct tape, or equivalent. Ensure all joints in polyethylene sheeting overlap a minimum of 12 inches.
   h. Frame out emergency exits. Provide double-layered 6 mil polyethylene sheeting and tape seal opening. Post as emergency exits only. Within the work area, mark the locations and directions of emergency exists throughout the work area, using exit signs and/or duct tape.
   i. Remove all items attached to, or in contact with, LBP only after the work area enclosure is in place. HEPA vacuum all removed items prior to removal from the work area and before the start of the LBP abatement activities.
3. The following conditions apply to exterior work area preparation procedures.
   a. Provide barriers, as necessary, to isolate the work area. Post lead warning signs at approaches to the lead abatement work area, as applicable.
   b. Close all doors and windows on the side of the building upon which abatement is being performed. For doors and windows on the side of the building where a dust-generating method will be used, cover with polyethylene sheeting at the level of the dust-generating removal method and all levels below.
   c. Cover the ground and vegetation with a waterproof canvas tarp that is weighted at the edges to prevent blowing. The edges of the tarp must be elevated to trap debris and water, and must be taped or otherwise attached to the structure. Ensure the tarp extends a minimum of 10 feet from the building or a sufficient distance to collect falling debris, whichever is greater.
   d. Seal off all openings, including, but not limited to, windows, diffusers, grilles, electrical outlets and boxes, doors, drains, and any other penetrations within the work area, using 2 layers of at least 6 mil fire retardant polyethylene sheeting to form a critical barrier or other appropriate component-specific means.
   e. Secure polyethylene sheeting with spray adhesive and then seal with duct tape, or equivalent. Ensure all joints in polyethylene sheeting overlap a minimum of 12 inches.
4. Remove all items attached to, or in contact with, LBP only after the work area enclosure is in place. HEPA vacuum all removed items prior to removal from the work area and before the start of the LBP abatement activities.

B. LBP Abatement Work Activities

1. Provide continuous on-site supervision by personnel knowledgeable and trained in all aspects of LBP removal and disposal.
2. Install and remove all temporary containment facilities. Provide and maintain environmental protective measures, equipment, and procedures at the work site.
3. Remove, contain, collect, and dispose of LBP or items impacted with LBP that are disturbed during the project, in compliance with all applicable federal, state, and local regulations.
4. Disturbance methods must be performed in a manner that will control lead hazards and limit worker exposure to lead hazards, and must be compliant with HUD guidelines and EPA regulations. Ensure that provisions are implemented to minimize the generation of dust during the demolition and removal operations. Wherever possible, remove existing building components without cutting, heating, abrading, or otherwise significantly disturbing the LBP. The following disturbance methods are prohibited.
   a. Open flame burning or torching.
   b. Machine sanding or grinding without a HEPA local exhaust control.
   c. Abrasive blasting or sandblasting without HEPA local exhaust control.
   d. Heat guns operating above 1,100 degrees Fahrenheit or charring the paint.
   e. Dry sanding or dry scraping, except dry scraping in conjunction with heat guns or within 1 foot of electrical outlets.
   f. Paint stripping in a poorly ventilated space using a volatile stripper that is a hazardous substance per 16 CFR 1500.3, and/or a hazardous chemical per 29 CFR 1910.1200 or 29 CFR 1926.59, as applicable to the work.
5. The following conditions shall apply to work area cleaning.
   a. Clean all surfaces within the established work area using HEPA vacuuming and wet washing/wiping methods.
   b. At a minimum, perform an initial clean with HEPA vacuum, followed by wet washing/wiping, followed by a final pass with HEPA vacuum.
   c. Commence each cleaning phase at the ceiling level and finish at the floor level.
   d. For work areas with multiple rooms or distinct functional spaces, sequence cleaning from areas that are generally considered to be in the cleanest condition to dirtier conditions and avoid passing through rooms or spaces already cleaned.
   e. Perform wet washing/wiping using a detergent or cleaning agent that is suitable for cleaning of dust from surfaces. Select detergents or cleaning agents in consideration of the types of surfaces to be cleaned, such that the surface finishes will not be damaged. Mix and use cleaning agents pursuant to the manufacturer's instructions.
   f. Collect all residual waste material by HEPA vacuum. Sweeping of materials is prohibited. Cleaning with compressed air and/or other methods that could unnecessarily spread and disperse dust to other areas are also not permitted.
   g. Perform clean-up operations as the work progresses and on a daily basis at a minimum. Waste debris must be properly containerized at all times.
6. Utilize work area containment, signage and barriers, lead safe removal and cleaning methods, change areas, showers/wash facilities, employee monitoring, recordkeeping, and other applicable work practices, as necessary to complete the work in compliance with OSHA 29 CFR 1926.62 and EPA requirements.
7. Ensure that wastes with LCM are properly handled during each project phase, and packaged and maintained in appropriate containers. Implement provisions to prevent lead contamination of the surrounding environment. Provide for sampling and analysis and disposal of waste with lead, as described in Article 3.08.

C. Work Area Clearance

1. An Environmental Consultant will be retained by the Owner, under separate contract, to perform post-abatement visual work area clearance and collect post-abatement wipe

samples for lead analysis. The post-abatement wipe samples must be in compliance with HUD and EPA standards, prior to the work area being deconstructed. In the event that the post-abatement visual assessment or wipe sample results are not satisfactory, the Contractor will be responsible for additional abatement and cleaning.

**3.07 RESTORATION OF FACILITIES**

A. Remove any installed temporary utilities upon completion of abatement activities and notification of compliance with clearance criteria. Disconnect all temporary power, remove power lockouts, and restore power if applicable. Remove all temporary plumbing.

**3.08 DISPOSAL OF WASTE WITH LEAD**

A. Prior to disposal of waste with lead, provide for the collection and laboratory analysis of a waste characterization sample(s). Provide for laboratory analysis for toxicity in accordance with USEPA methods (i.e., Toxicity Characteristic Leaching Procedure (TCLP) lead). Laboratory analysis must be performed by a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory.
   1. Waste materials with a TCLP lead concentration equal to or greater than the TCLP limit for lead of 5 parts per million must be classified as hazardous waste. Package, transport, and dispose of hazardous waste in accordance with all requirements of the agencies listed in Article 1.03. Ensure that the time periods for on-site storage of hazardous wastes do not exceed maximum timeframes permitted by federal, state, and local regulations.
   2. Waste materials with a TCLP lead concentration less than the TCLP limit for lead of 5 parts per million can be processed and disposed of as non-hazardous waste, provided there are no other characteristics that would render the waste as hazardous. Package, transport, and dispose of non-hazardous waste in accordance with all requirements of the agencies listed in Article 1.03.

B. Provide waste disposal documentation as specified in Article 1.05.

**END OF SECTION**

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**SECTION 03 1000**
**CONCRETE FORMING AND ACCESSORIES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Formwork for cast-in-place concrete, with shoring, bracing and anchorage.

B. Openings for other work.

C. Form accessories.

D. Form stripping.

### 1.02 RELATED REQUIREMENTS

A. Section 03 2000 - Concrete Reinforcing.

B. Section 03 3000 - Cast-in-Place Concrete.

### 1.03 REFERENCE STANDARDS

A. ACI 117 - Specification for Tolerances for Concrete Construction and Materials 2010 (Reapproved 2015).

B. ACI 301 - Specifications for Concrete Construction 2020.

C. ACI 318 - Building Code Requirements for Structural Concrete 2019 (Reapproved 2022).

D. ACI 347R - Guide to Formwork for Concrete 2014 (Reapproved 2021).

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on void form materials and installation requirements.

C. Shop Drawings: Indicate pertinent dimensions, materials, bracing, and arrangement of joints and ties.

## PART 2 PRODUCTS

### 2.01 FORMWORK - GENERAL

A. Provide concrete forms, accessories, shoring, and bracing as required to accomplish cast-in-place concrete work.

B. Design and construct concrete that complies with design with respect to shape, lines, and dimensions.

C. Chamfer outside corners of exterior wall features such as backstop walls.

D. Comply with applicable state and local codes with respect to design, fabrication, erection, and removal of formwork.

E. Comply with relevant portions of ACI 347R, ACI 301, and ACI 318.

### 2.02 WOOD FORM MATERIALS

A. Form Materials for general concrete applications: At the discretion of the Contractor.

B. Form Materials for softball and backstop walls shall be capable of producing an architecturally smooth surface.

### 2.03 FORMWORK ACCESSORIES

A. Form Ties: Removable type, galvanized metal, fixed length, cone type, free of defects that could leave holes larger than 1 inch in concrete surface.

B. Form Release Agent: Capable of releasing forms from hardened concrete without staining or discoloring concrete or forming bugholes and other surface defects, compatible with concrete and form materials, and not requiring removal for satisfactory bonding of coatings to be applied.
   1. Do not use materials containing diesel oil or petroleum-based compounds.
   2. Composition: Colorless, reactive, water-based compound.
   3. Products:
      a. Nox-Crete Inc; BIO-NOX: www.nox-crete.com/#sle.
      b. SpecChem, LLC; Bio Strip WB (water-based): www.specchemllc.com/#sle.
      c. W. R. Meadows, Inc; Duogard II (water-based): www.wrmeadows.com/#sle.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

### 3.02 ERECTION - FORMWORK

A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.

B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.

### 3.03 APPLICATION - FORM RELEASE AGENT

A. Apply form release agent on formwork in accordance with manufacturer's recommendations.

B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.

C. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.

### 3.04 INSERTS, EMBEDDED PARTS, AND OPENINGS

A. Provide formed openings where required for items to be embedded in passing through concrete work.

B. Locate and set in place items that will be cast directly into concrete.

### 3.05 FORM CLEANING

A. Clean forms as erection proceeds, to remove foreign matter within forms.

B. Clean formed cavities of debris prior to placing concrete.
   1. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.
   2. During cold weather, remove ice and snow from within forms. Do not use de-icing salts. Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure. Use compressed air or other means to remove foreign matter.

### 3.06 FORMWORK TOLERANCES

A. Construct formwork to maintain tolerances required by ACI 117, unless otherwise indicated.

### 3.07 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests, as specified in Section 01 4000 - Quality Requirements.

B. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and to verify that supports, fastenings, wedges, ties, and items are secure.

C. Do not reuse wood formwork more than 2 times for concrete surfaces to be exposed to view. Do not patch formwork.

**3.08 FORM REMOVAL**

A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.

B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.

C. Store removed forms to prevent damage to form materials or to fresh concrete. Discard damaged forms.

**END OF SECTION**

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**SECTION 03 2000**
**CONCRETE REINFORCING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Reinforcing steel for cast-in-place concrete.

B. Supports and accessories for steel reinforcement.

### 1.02 RELATED REQUIREMENTS

A. Section 03 1000 - Concrete Forming and Accessories.

B. Section 03 3000 - Cast-in-Place Concrete.

C. Section 04 2000 - Unit Masonry: Reinforcement for masonry.

### 1.03 REFERENCE STANDARDS

A. ACI 301 - Specifications for Concrete Construction 2020.

B. ACI 318 - Building Code Requirements for Structural Concrete 2019 (Reapproved 2022).

C. ACI SP-66 - ACI Detailing Manual 2004.

D. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement 2022.

E. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete 2022.

F. CRSI (DA4) - Manual of Standard Practice 2018, with Errata (2019).

G. CRSI (P1) - Placing Reinforcing Bars, 10th Edition 2019.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Comply with requirements of ACI SP-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.
   1. Prepare shop drawings under seal of a Professional Structural Engineer experienced in design of work of this type and licensed in the State in which the Project is located.

C. Manufacturer's Certificate: Certify that reinforcing steel and accessories supplied for this project meet or exceed specified requirements.

D. Reports: Submit certified copies of mill test report of reinforcement materials analysis.

### 1.05 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 301.

## PART 2 PRODUCTS

### 2.01 REINFORCEMENT

A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
   1. Plain billet-steel bars.
   2. Unfinished.

B. Steel Welded Wire Reinforcement (WWR): Galvanized, deformed type; ASTM A1064/A1064M.
   1. Form: Flat Sheets.
   2. WWR Style: As indicated on drawings.

C. Reinforcement Accessories:
   1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch.

2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.

**2.02 FABRICATION**

A. Fabricate concrete reinforcing in accordance with CRSI (DA4) - Manual of Standard Practice.

B. Welding of reinforcement is not permitted.

**PART 3 EXECUTION**

**3.01 PLACEMENT**

A. Place, support and secure reinforcement against displacement. Do not deviate from required position.

B. Do not displace or damage vapor barrier.

C. Accommodate placement of formed openings.

D. Maintain concrete cover around reinforcing as follows:
   1. Walls (exposed to weather or backfill): 2"
   2. Footings and Concrete Formed Against Earth: 3".
   3. Slabs on Fill: 2".

E. Comply with applicable code for concrete cover over reinforcement.

**3.02 FIELD QUALITY CONTROL**

A. An independent testing agency, as specified in Section 01 4000 - Quality Requirements, will inspect installed reinforcement for compliance with contract documents before concrete placement.

**END OF SECTION**

**SECTION 03 3000**
**CAST-IN-PLACE CONCRETE**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Floors and slabs on grade.

B. Concrete foundation walls.

C. Joint devices associated with concrete work.

D. Miscellaneous concrete elements, including equipment pads, light pole bases, and Backstop Walls, and Scoreboard Foundations.

E. Concrete curing.

### 1.02 RELATED REQUIREMENTS

A. Section 03 1000 - Concrete Forming and Accessories: Forms and accessories for formwork.

B. Section 03 2000 - Concrete Reinforcing.

C. Section 07 9200 - Joint Sealants: Products and installation for sealants and joint fillers for saw cut joints and isolation joints in slabs.

### 1.03 REFERENCE STANDARDS

A. ACI 117 - Specification for Tolerances for Concrete Construction and Materials 2010 (Reapproved 2015).

B. ACI 211.1 - Selecting Proportions for Normal-Density and High Density-Concrete - Guide 2022.

C. ACI 301 - Specifications for Concrete Construction 2020.

D. ACI 302.1R - Guide to Concrete Floor and Slab Construction 2015.

E. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete 2000 (Reapproved 2009).

F. ACI 305R - Guide to Hot Weather Concreting 2020.

G. ACI 306R - Guide to Cold Weather Concreting 2016.

H. ACI 308R - Guide to External Curing of Concrete 2016.

I. ACI 318 - Building Code Requirements for Structural Concrete 2019 (Reapproved 2022).

J. ACI 347R - Guide to Formwork for Concrete 2014 (Reapproved 2021).

K. ASTM C33/C33M - Standard Specification for Concrete Aggregates 2023.

L. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens 2021.

M. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete 2023.

N. ASTM C109/C109M - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50 mm] Cube Specimens) 2021.

O. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete 2020.

P. ASTM C150/C150M - Standard Specification for Portland Cement 2022.

Q. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete 2010a (Reapproved 2016).

R. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete 2019.

S. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete 2019, with Editorial Revision (2022).

T. ASTM C618 - Standard Specification for Coal Ash and Raw or Calcined Natural Pozzolan for Use in Concrete 2023, with Editorial Revision.

U. ASTM C1059/C1059M - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete 2021.

V. ASTM C1116/C1116M - Standard Specification for Fiber-Reinforced Concrete 2023.

W. ASTM C1315 - Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete 2019.

X. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete 2018.

Y. ASTM C1708/C1708M - Standard Test Methods for Self-leveling Mortars Containing Hydraulic Cements 2019.

Z. ASTM E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs 2018a.

AA. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs 2017 (Reapproved 2023).

BB. ICRI 310.2R - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair 2013.

## 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
   1. For curing compounds, provide data on method of removal in the event of incompatibility with floor covering adhesives.

C. Mix Design: Submit proposed concrete mix design.
   1. Indicate proposed mix design complies with requirements of ACI 301, Section 4 - Concrete Mixtures.
   2. Indicate proposed mix design complies with requirements of ACI 318, Chapter 5 - Concrete Quality, Mixing and Placing.
   3. Indicate proposed mix design complies with fiber reinforcing manufacturer's written recommendations.

D. Samples: Submit samples of underslab vapor retarder to be used.

E. Test Reports: Submit report for each test or series of tests specified.

F. Sustainable Design Submittal: If any fly ash, ground granulated blast furnace slag, silica fume, rice hull ash, or other waste material is used in mix designs to replace Portland cement, submit the total volume of concrete cast in place, mix design(s) used showing the quantity of portland cement replaced, reports showing successful cylinder testing, and temperature on day of pour if cold weather mix is used.

G. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

## 1.05 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 301 and ACI 318.

B. Follow recommendations of ACI 305R when concreting during hot weather.

C. Follow recommendations of ACI 306R when concreting during cold weather.

D. For slabs required to include moisture vapor reducing admixture (MVRA), do not proceed with placement unless manufacturer's representative is present for every day of placement.

## 1.06 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Slabs with Porosity Inhibiting Admixture (PIA) or Moisture Vapor Reducing Admixture (MVRA): Provide warranty to cover cost of flooring failures due to moisture migration from slabs for life of the concrete.
   1. Include cost of repair or removal of failed flooring, placement of topical moisture remediation system, and replacement of flooring with comparable flooring system.
   2. Provide warranty by admixture manufacturer matching terms of flooring adhesive or primer manufacturer's material defect warranty.

C. Moisture Emission-Reducing Curing and Sealing Compound, Membrane-Forming: Provide warranty to cover cost of flooring delamination failures for 10 years.
   1. Include cost of repair or removal of failed flooring, remediation with a moisture vapor impermeable surface coating, and replacement of flooring with comparable flooring system.

# PART 2 PRODUCTS

## 2.01 FORMWORK

A. Comply with requirements of Section 03 1000.

## 2.02 REINFORCEMENT MATERIALS

## 2.03 CONCRETE MATERIALS

A. Cement: ASTM C150/C150M, Type I - Normal Portland type. NOTE: Use of "White" cement is required for all softball and baseball backstop walls.
   1. Acquire cement for entire project from same source.

B. Fine and Coarse Aggregates: ASTM C33/C33M.
   1. Acquire aggregates for entire project from same source.

C. Fly Ash: ASTM C618, Class C or F.

D. Calcined Pozzolan: ASTM C618, Class N.

E. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

F. Structural Fiber Reinforcement: ASTM C1116/C1116M.
   1. Fiber Type: Alkali-resistant synthetic.
      a. Products:
         1) Fibermesh; Fibermesh 650: www.fibermesh.com/#sle.
         2) Forta Corporation; FORTA-FERRO (1-1/2"): www.forta-ferro.com/#sle.
         3) Substitutions: See Section 01 6000 - Product Requirements.

## 2.04 ADMIXTURES

A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.

B. Air Entrainment Admixture: ASTM C260/C260M.

C. High Range Water Reducing and Retarding Admixture: ASTM C494/C494M Type G.

D. High Range Water Reducing Admixture: ASTM C494/C494M Type F.

E. Water Reducing and Accelerating Admixture: ASTM C494/C494M Type E.

F. Accelerating Admixture: ASTM C494/C494M Type C.

G. Retarding Admixture: ASTM C494/C494M Type B.

H. Moisture Vapor Reducing Admixture (MVRA): Liquid, inorganic admixture free of volatile organic compounds (VOCs). Closes capillary systems formed during concrete curing to reduce moisture vapor emission and transmission. Reduces concrete shrinkage with no adverse effect on concrete properties or applied flooring.
   1. Provide admixture in slabs to receive adhesively applied flooring New Auditorium Slab on Grade.
   2. VOC Content: Zero.
   3. Products:
      a. Barrier One Concrete Admixtures; MVRA-CPS: www.barrierone.com/#sle.

## 2.05 ACCESSORY MATERIALS

A. Underslab Vapor Retarder:
   1. Accessory Products: Vapor retarder manufacturer's recommended tape, adhesive, mastic, prefabricated boots, etc., for sealing seams and penetrations.
   2. Products:
      a. Stego Industries, LLC; ____: www.stegoindustries.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

B. Self-Leveling Cementitious Concrete Floor Topping:
   1. Minimum Compressive Strength at 28 Days, ASTM C1708/C1708M: 7,000 pounds per square inch.

## 2.06 BONDING AND JOINTING PRODUCTS

A. Latex Bonding Agent: Non-redispersable acrylic latex, complying with ASTM C1059/C1059M, Type II.

B. Slab Isolation Joint Filler: 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.

C. Slab Construction Joint Devices: Combination keyed joint form and screed, galvanized steel, with rectangular or round knockout holes for conduit or rebar to pass through joint form at 6 inches on center; ribbed steel stakes for setting.

## 2.07 CURING MATERIALS

A. Evaporation Reducer: Liquid thin-film-forming compound that reduces rapid moisture loss caused by high temperature, low humidity, and high winds; intended for application immediately after concrete placement.

B. Curing Compound, Naturally Dissipating: Clear, water-based, liquid membrane-forming compound; complying with ASTM C309.

C. Curing and Sealing Compound, Moisture Emission-Reducing, Membrane-Forming: Clear, liquid sealer for application to newly-placed concrete; capable of providing adequate bond for flooring adhesives, initially and over the long term; with sufficient moisture vapor impermeability to prevent deterioration of flooring adhesives due to moisture emission.
   1. Use this product to cure and seal all slabs to receive adhesively applied flooring or roofing.
   2. Comply with ASTM C309 and ASTM C1315 Type I Class A.
   3. VOC Content: Less than 100 g/L.

## 2.08 CONCRETE MIX DESIGN

A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
   1. Replace as much Portland cement as possible with fly ash, ground granulated blast furnace slag, silica fume, or rice hull ash as is consistent with ACI recommendations.

B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
   1. For trial mixtures method, employ independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.

C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.

D. Fiber Reinforcement: Add to mix at rate of 1.5 pounds per cubic yard, or as recommended by manufacturer for specific project conditions. Fiber shall be used in all exterior sidewalks, curbs and slabs on grade

E. Normal Weight Concrete:
   1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 4500 psi
   2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.
   3. Calcined Pozzolan Content: Maximum 10 percent of cementitious materials by weight.
   4. Water-Cement Ratio: Maximum 40 percent by weight.
   5. Maximum Aggregate Size: 5/8 inch.

**2.09 MIXING**

A. Transit Mixers: Comply with ASTM C94/C94M.

B. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.

C. Do not use expansive component in same concrete batch with MVRA or PIA.

D. Do not use shrinkage-reducing admixture (SRA) in same concrete batch with MVRA or PIA.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify lines, levels, and dimensions before proceeding with work of this section.

**3.02 PREPARATION**

A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.

B. Verify that forms are clean and free of rust before applying release agent.

C. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.

D. Prepare existing concrete surfaces to be repaired according to ICRI 310.2R, _____.

E. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent in according to bonding agent manufacturer's instructions.
   1. Use latex bonding agent only for non-load-bearing applications.

F. Where new concrete with integral waterproofing is to be bonded to previously placed concrete, prepare surfaces to be treated in accordance with waterproofing manufacturer's instructions. Saturate cold joint surface with clean water, and remove excess water before application of coat of waterproofing admixture slurry. Apply slurry coat uniformly with semi-stiff bristle brush at rate recommended by waterproofing manufacturer.

G. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Comply with ASTM E1643. Lap joints minimum 6 inches. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering.
   1. Vapor Retarder Over Granular Fill: Install compactible granular fill before placing vapor retarder as indicated on drawings. Do not use sand.

### 3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS

A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.

### 3.04 PLACING CONCRETE

A. Place concrete in accordance with ACI 304R.

B. Place concrete for floor slabs in accordance with ACI 302.1R.

C. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.

D. Ensure reinforcement, inserts, waterstops, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.

E. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.

F. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

### 3.05 SLAB JOINTING

A. Locate joints as indicated on drawings.

B. Anchor joint fillers and devices to prevent movement during concrete placement.

C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.

D. Saw Cut Contraction Joints: Saw cut joints before concrete begins to cool, within 4 to 12 hours after placing; use 3/16 inch thick blade and cut at least 1 inch deep but not less than one quarter (1/4) the depth of the slab.

E. Construction Joints: Where not otherwise indicated, use metal combination screed and key form, with removable top section for joint sealant.

### 3.06 FLOOR FLATNESS AND LEVELNESS TOLERANCES

A. An independent testing agency, as specified in Section 01 4000, will inspect finished slabs for compliance with specified tolerances.

B. Maximum Variation of Surface Flatness:
   1. Exposed Concrete Floors: 1/4 inch in 10 feet.
   2. Under Seamless Resilient Flooring: 1/4 inch in 10 feet.
   3. Under Carpeting: 1/4 inch in 10 feet.

C. Correct the slab surface if tolerances are less than specified.

D. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

### 3.07 CONCRETE FINISHING

A. Repair surface defects, including tie holes, immediately after removing formwork.

B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.

C. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch or more in height. Provide finish as follows:

D. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:

1. Surfaces to Receive Thick Floor Coverings: "Wood float" as described in ACI 302.1R; thick floor coverings include quarry tile, ceramic tile, and Portland cement terrazzo with full bed setting system.
2. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 302.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, resinous matrix terrazzo, thin set quarry tile, and thin set ceramic tile.
3. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

**3.08 CURING AND PROTECTION**

A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.

B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

C. Surfaces Not in Contact with Forms:
1. Slabs and Floors To Receive Adhesive-Applied Flooring: Curing compounds and other surface coatings are usually considered unacceptable by flooring and adhesive manufacturers. If such materials must be used, either obtain the approval of the flooring and adhesive manufacturers prior to use or remove the surface coating after curing to flooring manufacturer's satisfaction.
2. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
3. Final Curing: Begin after initial curing but before surface is dry.

**3.09 FIELD QUALITY CONTROL**

A. An independent testing agency will perform field quality control tests, as specified in Section 01 4000 - Quality Requirements.

B. Provide free access to concrete operations at project site and cooperate with appointed firm.

C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.

D. Tests of concrete and concrete materials may be performed at any time to ensure compliance with specified requirements.

E. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.

F. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C143/C143M.

G. Slab Testing: Cooperate with manufacturer of specified moisture vapor reducing admixture (MVRA) to allow access for sampling and testing concrete for compliance with warranty requirements.

**3.10 DEFECTIVE CONCRETE**

A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.

B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.

C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.

D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

### 3.11 PROTECTION

A. Do not permit traffic over unprotected concrete floor surface until fully cured.

**END OF SECTION**

**SECTION 03 3001**
**CONCRETE SIDEWALKS, CURBS AND EXTERIOR CONCRETE FLATWORK**

## PART 1 GENERAL

### 1.01 SUMMARY

A. This Section includes exterior Portland cement concrete paving for the following:
   1. Curbs.
   2. Walkways.
   3. Equipment pads.

### 1.02 SUBMITTALS

A. General: Submit the following according to the Conditions of the Contract and Division 1 Specification Sections.

B. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, joint systems, curing compounds, dry-shake finish materials, and others if requested by Architect/Engineer.

C. Design mixes for each class of concrete. Include revised mix proportions when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.

D. Laboratory test reports for evaluation of concrete materials and mix design tests.

### 1.03 QUALITY ASSURANCE

A. Concrete Standards: Comply with provisions of the following standards, except where more stringent requirements are indicated.
   1. American Concrete Institute (ACI) 301, “Specification for Structural Concrete for Buildings.”
   2. ACI 318-14, “Building Code Requirements for Reinforced Concrete”.
   3. Concrete Reinforcing Steel Institute (CRSI) “Manual of Standard Practice”.

B. Concrete Manufacturer Qualifications: Manufacturer of ready-mixed concrete products complying with ASTM C94 requirements for production facilities and equipment.

C. Preinstallation Conference: Conduct conference at Project Site to comply with Requirements of Division 1 Section “Project Meetings” and the following:
   1. Before installing Portland cement concrete paving, meet with representatives of Owner, Architect, consultants, independent testing agency, and other concerned entities to review requirements. Notify participants at least three (3) working days before conference.

### 1.04 PROJECT CONDITIONS

A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

## PART 2 PRODUCTS

### 2.01 FORMS

A. Form Materials: Plywood, metal, metal-framed plywood, or other acceptable panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces.
   1. Use flexible or curved forms for curves of a 100 feet or less radius.

B. Form Release Agent: Provide commercial formulation form-release agent with a maximum of 350 g/L volatile organic compounds (VOCs) that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

### 2.02 REINFORCING MATERIALS

A. Reinforcing Bars and Tie Bars: ASTM A 615, Grade 60, deformed.

B. Deformed-Steel Welded Wire Fabric: ASTM A 497.
   1. Furnish in flat sheets, not rolls, unless otherwise acceptable to Architect.

C. Supports for Reinforcement: Chairs, spacers, dowel bar supports and other devices for spacing, supporting, and fastening reinforcing bars, welded wire fabric, and dowels in place. Use wire bar-type supports complying with CRSI specifications.
   1. Use supports with sand plates or horizontal runners where base material will not support chair legs.
   2. Use of concrete brick, pieces of broken concrete, stone, soil, and other items deemed unacceptable to Architect, are prohibited for support of reinforcement.

**2.03 CONCRETE MATERIALS**

A. Portland Cement: ASTM C 150, Type I.
   1. Use one brand of cement throughout Project unless otherwise acceptable to Architect/Engineer.

B. Fly Ash: ASTM C 618, Type F.

C. Normal-Weight Aggregates: ASTM C 33, Class 4, and as follows. Provide aggregates from a single source.
   1. Maximum Aggregate Size: 1-1/2 inch.
   2. Do not use fine or coarse aggregates that contain substances that cause spalling.
   3. Local aggregates not complying with ASTM C 33 that has been shown to produce concrete of adequate strength and durability by special tests or actual service may be used when acceptable to Architect/Engineer.

D. Water: Portable, having maximum acceptable 0.5 mg/l total chlorine residual.

E. Fiber Reinforcement: Provide mandatory inclusion of synthetic fibers engineered and designed for secondary reinforcement of concrete slabs, complying with ASTM C 116, Type III.

**2.04 ADMIXTURES**

A. Provide concrete admixtures that contain not more than 0.1 percent chloride ions.

B. Air-Entraining Admixtures: ASTM C 260, certified by manufacturer to be compatible with other required admixtures.

C. Water-Reducing Admixture: ASTM C 494, Type A.

D. High-Range Water-Reducing Admixture: ASTM C 494, Type F or Type G.

E. Water-Reducing and Accelerating Admixture: ASTM C 494, Type E.

F. Water-Reducing and Retarding Admixture: ASTM C 494, Type D.

G. Available Products: Subject to compliance with requirements, products that may be incorporated in the Work include, but are not limited to, the following:
   1. Air-Entraining Admixture:
      a. Air-Mix; Euclid Chemical Co.
      b. Darex AEA or Daravair; GCP Applied Technologies.
      c. MasterAir AE 200; BASF.
      d. Sika AIR; Sika Corp.
   2. Water-Reducing Admixture:
      a. Eucon A+; Euclid Chemical Co.
      b. ADVA 198; GCP Applied Technologies.
      c. MasterPozzolith 200; BASF.
      d. Plastocrete 161; Sika Corp.
   3. High-Range Water-Reducing Admixture:
      a. Eucon 37; Euclid Chemical Co.

b. ADVA 190 or Daracem 100; GCP Applied Technologies.
c. MasterRheobuild 1000; BASF.
d. Sikament 686; Sika Corp.

4. Water-Reducing and Accelerating Admixture:
   a. Accelguard 80; Euclid Chemical Co.
   b. Duraset 400; GCP Applied Technologies.
   c. MasterSet FP20; BASF.
   d. Sika Set NC; Sika Corp.
5. Water-Reducing and Retarding Admixture:
   a. Eucon Retarder 75; Euclid Chemical Co.
   b. Daratard-17;GCP Applied Technologies.
   c. MasterSet R122; BASF.
   d. Plastiment; Sika Corporation.

**2.05 CURING MATERIAL**

A. Absorptive Cover: Burlap cloth made from jute or kenaf, weighing approximately 9 ounces per square yard, complying with AASHTO M 182, Class 2.

B. Moisture-Retaining Cover: One (1)of the following, complying with ASTM C 171.
   1. Waterproof paper.
   2. Polyethylene film.
   3. White burlap-polyethylene sheet.

C. Clear Solvent-Borne Liquid Membrane-Forming Curing Compound: ASTM C 309, Type I, Class A or B, wax free.
   1. Provide material that has a maximum volatile organic compound (VOC) rating of 350 g/L.

D. Evaporation Control: Monomolecular film-forming compound applied to exposed concrete slab surfaces for temporary protection from rapid moisture loss.

E. Products: Subject to compliance with requirements, provide on of the following:
   1. Clear Solvent-Borne Liquid Membrane-Forming Curing Compound:
      a. Diamond Clear VOX; Euclid Chemical Co.
      b. Masterkure; BASF.
      c. 3100 Series; W.R. Meadows, Inc.
      d. Kure-N-Seal; Sonneborn-Chemrex.
   2. Evaporation Control:
      a. Eucobar; Euclid Chemical Co.
      b. Confilm; BASF.

**2.06 RELATED MATERIAL**

A. Bonding Agent: Acrylic or styrene butadiene.

B. Epoxy Adhesive: ASTM C 881, 2-component material suitable for dry or damp surfaces. Provide material type, grade, and class to suit requirements.

C. Available Products: Subject to compliance with requirements, products that may be incorporated in the Work include, but are not limited to, the following:
   1. Bonding Agent:
      a. Day-Chem Ad Bond (J-40); Dayton Superior Corp.
      b. SBR Latex; Euclid Chemical Co.
      c. Daraweld C; GCP Applied Technologies.
      d. MasterProtect; BASF.
      e. Sonocrete; Sonneborn-Chemrex.
   2. Epoxy Adhesive:
      a. Resi-Bond (J-58); Dayton Superior.

b. Euco Epoxy System #452; Euclid Chemical Co.
c. MasterEmaco; BASF.
d. Sikadur 32 Hi-Mod; Sika Corp.

D. Anti-spalling Compound: Combination of boiled linseed oil, curer seal and mineral spirits; complying with AASHTO M-233 Standard, or approved equivalent.

E. Preformed Joint Filler: ASTM D-1056, SCAE1, 2CI, RE41E1 closed cell expanded neoprene manufactured by Williams Products, Inc., or approved equivalent.

**2.07 CONCRETE MIX**

A. Prepare design mixes for each type and strength of normal-weight concrete by either laboratory trial batch or field experience methods as specified in ACI 301. For the trial batch method, use a qualified independent testing agency for preparing and reporting proposed mix designs.
1. Do not use the Owner's field quality-control testing agency as the independent testing agency.
2. Limit use of fly ash to 15 percent of cement content by absolute weight.

B. Proportion mixes according to ACI 211.1 and ACI 31 to provide normal-weight concrete with the following properties:
1. Compressive Strength (28-Day): 5000 psi, minimum.
2. Maximum Water-Cement Ratio at Point of Placement: 0.42.
3. Slump Limit at Point of Placement: 3 inches.
a. Slump limit for concrete containing high-range water-reducing admixture (superplasticizers): Not more than 8 inches after adding admixture to site verified 2 inch to 3 inch slump concrete.
4. Minimum 650 pounds Portland cement per cubic yard of concrete.

C. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content as follows with a tolerance of plus or minus 1 percent:
1. Air Content:
5.5 percent for 1-1/2 inch nominal maximum aggregate size.
6.0 percent for 1 inch nominal maximum aggregate size.
6.0 percent for 3/4 inch nominal maximum aggregate size.
7.0 percent for 1/2 inch nominal maximum aggregate size.

D. Fiber Reinforcement: Polypropylene fibers engineered and designed for secondary reinforcement of concrete slabs, complying with ASTM C 1116, Type III. Add to mix at rate of 1.5 pounds per cubic yard, unless manufacturer recommends otherwise.

E. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, project conditions, weather, test results, or other circumstances warrant.

**2.08 CONCRETE MIXING**

A. Ready-Mixed Concrete: Comply with requirements and with ASTM C 94.
1. When air temperature is between 85 degrees F and 90 degrees F, reduce mixing and delivery time from 1-1/2 hours to seventy-five (75) minutes; when air temperature is above 90 degrees F, reduce mixing and delivery time to sixty (60) minutes.

**PART 3 EXECUTION**

**3.01 SURFACE PREPARATION**

A. Proof-roll prepared subbase surface to check for unstable areas and verify need for additional compaction. Do not begin paving work until such conditions have been corrected and are ready to receive paving.

B. Remove loose material from compacted subbase surface immediately before placing concrete.

### 3.02 EDGE FORMS AND SCREED CONSTRUCTION

A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for paving to required lines, grades, and elevations. Install forms to allow continuous progress of Work and so that forms can remain in place at least twenty-four (24) hours after concrete placement.

B. Check completed formwork and screeds for grade and alignment to following tolerances:
   1. Top of Forms: Not more than 1/8 inch in 10 feet.
   2. Vertical Face on Longitudinal Axis: Not more than 1/4 inch in 10 feet.

C. Clean forms after each use and coat with form release agent as required to ensure separation from concrete without damage.

### 3.03 PLACING REINFORCEMENT

A. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "placing reinforcing bars" for placing and supporting reinforcement.

B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.

C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement in accordance with ACI 318.

D. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least the greater of one (1) full mesh and/or 12 inch minimum lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

E. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities or replace units as required before placement. Set mats for a minimum 12 inch overlap to adjacent mats.

### 3.04 JOINTS

A. General: Construct contraction (control), construction, and isolation (expansion) joints true to line with faces perpendicular to surface plane of concrete. Construction transverse joints at right angles to the centerline, unless indicated otherwise.
   1. When joining existing paving, place transverse joints to align with previously placed joints, unless indicated otherwise.

B. Contraction Joints: Provide weakened-plane contraction joints, sectioning concrete into areas as shown on Drawings. Construct contraction joints for a depth equal to at least one-quarter of the concrete slab thickness, as follows:
   1. Tooled Joints: Form contraction joints in fresh concrete by grooving and finishing each edge of join t with a radiused jointer tool.
   2. Inserts: Form contraction joints by inserting premolded sponge rubber strips into fresh concrete until top surface of strip is at least 1/2 inch below paving surface. Radius each joint edge with a jointer tool. Clean groove of loose debris after concrete has hardened and apply approved caulking material to upper exposed portion of joint.

C. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than 1/2 hour, unless paving terminates at isolation joints.
   1. Continue reinforcement across construction joints unless indicated otherwise. Do not continue reinforcement through sides of strip paving unless indicated.
   2. Provide tie bars at sides of paving strips where indicated.
   3. Use bonding agent on existing concrete surfaces that will be joined with fresh concrete.

D. Isolation Joints: Form isolation joints of preformed sponge rubber joint filler strips abutting concrete curbs, curb corners, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
   1. Located expansion joints at intervals of 60 feet, unless indicated otherwise.

2. Extend joint fillers full width and depth of joint, not less 1/2 inch or more than 1 inch below finished surface where joint sealant is indicated. Place top of joint filler flush with finished concrete surface when no joint sealant is required.
3. Furnish Joint fillers in 1-piece lengths for full width being placed wherever possible. Where more than one length is required, lace or clip joint filler sections together.
4. Protect top edge of joint filler during concrete placement with a metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.

E. Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt-coat one-half of dowel length to prevent concrete bonding to one (1) side of joint.

**3.05 CONCRETE PLACEMENT**

A. Inspection: Before placing concrete, inspect and compete formwork installation, reinforcing steel, and items to be embedded or cast in. Notify other trades to permit installation of their Work.

B. Remove snow, ice, or frost from sub-base surface and reinforcing before placing concrete. Do not place concrete on surfaces that are frozen or have standing water.

C. Moisten sub-base to provide a uniform dampened condition at the time concrete is placed. Do not place concrete around manholes or other structures until they are at the required finish elevation and alignment.

D. Comply with requirements and with ACI 304R for measuring, mixing, transporting, and placing concrete.

E. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
1. When concrete placing is interrupted for more than 1/2 hour, place a construction joint.

F. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surface.

G. Consolidate concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures to consolidate concrete complying with ACI 309 R.
1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from join assemblies, reinforcement, or side forms. Use only square-faced shovels for hand-spreading and consolidation. Consolidate with care to prevent dislocation reinforcing, dowels, and joint devices.

H. Screed paved surfaces with a straightedge and strike off. Use bull floats or darbies to form a smooth surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces prior to beginning finishing operations.

I. Curbs and Gutters: When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test that meet or exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete.

J. Cold-Weather Placement: Comply with provisions of ACI 3060R and as follows. Protect concrete work form physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
1. When air temperature has fallen to or is expected to fall below 40 degrees F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F and not more than 80 degrees F at point of placement.
2. Do not use frozen materials or materials containing ice or snow.

3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.

K. Hot-Weather Placement: Place concrete complying with ACI 305 R and as specified when hot weather conditions exist.
   1. Cool ingredients before mixing to maintain concrete temperature at time of placement to below 90 degrees F. Mixing water may be chilled or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
   2. Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedding in concrete.
   3. Fog spray forms, reinforcing steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

## 3.06 CONCRETE FINISHING

A. Float Finish: Begin floating when bleed water sheen has disappeared and the concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand-floating if area is small or inaccessible to power units. Finish surfaces to true planes within a tolerance of 1/4 inch in 10 feet as determined by a 10-foot-long straightedge placed anywhere on the surface in any direction. Cut down high spots and fill low spots. Refloat surface immediately to a uniform granular texture.
   1. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating surface 1/16 inch deep with a stiff-bristled broom, perpendicular to line of traffic.

B. Final Tooling: Tool edges of paving, gutters, curbs, and joints formed in fresh concrete with a jointing tool to following radius. Repeat tooling of edges and joints after applying surface finishes. Eliminate tool marks on concrete surfaces.
   1. Radius: 3/8 inch.

## 3.07 CONCRETE PROTECTION AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with the recommendation of ACI 306 R for cold weather protection and ACI 305 R for hot weather protection during curing.

B. Evaporation Control: In hot, dry, and windy weather, protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply according to manufacturer's instructions after screeding and bull floating, but before floating.

C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.

D. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
   1. Moisture Curing: Keep surfaces continuously moist for not less than 14 days with the following materials:
      a. Water.
      b. Continuous water-fog spray.
      c. Absorptive surfaces and edges with a minimum 12 inch lap over adjacent absorptive covers.
   2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inch minimum, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material an waterproof tape.

3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's directions. Recoat areas subjected to heavy rainfall within three (3) hours after initial application. Maintain continuity of coating and repair damage during curing period.

E. Anti-spalling Treatment: Apply treatment to concrete surfaces no sooner than twenty-eight (28) days after placement, to clean, dry concrete free of oil, dirt, and other foreign material. Apply cuing and sealing compound at a maximum coverage rate of 300 square feet per gallon. Apply anti-spalling compound in two (2) sprayed applications, taking care to insure that spray application is in a fine mist (the formation of large droplets in spray application is prohibited). First application shall be applied at a rate of at least 40 square yards per gallon; second application shall be applied at a rate if at least 60 square yards per gallon. Allow complete drying between applications of anti-spalling treatment compound.

**3.08 REPAIRS AND PROTECTION**

A. Remove and replace concrete paving that is broken, damaged, or defective, or does not meet the Requirements of the Section.

B. Drill test cores where directed by Architect/Engineer when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with Portland cement concrete bonded to paving with epoxy adhesive.

C. Protect concrete from damage. Exclude traffic from paving for at least fourteen (14) days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.

D. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep concrete paving not more than two (2) days prior to date scheduled for Substantial Completion inspections.

**END OF SECTION**

**SECTION 04 0511**
**MASONRY MORTARING AND GROUTING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Mortar for masonry.

B. Grout for masonry.

### 1.02 RELATED REQUIREMENTS

A. Section 04 2000 - Unit Masonry: Installation of mortar and grout.

### 1.03 REFERENCE STANDARDS

A. ASTM C5 - Standard Specification for Quicklime for Structural Purposes 2018.

B. ASTM C91/C91M - Standard Specification for Masonry Cement 2023.

C. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete 2023.

D. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar 2018.

E. ASTM C150/C150M - Standard Specification for Portland Cement 2022.

F. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes 2018.

G. ASTM C270 - Standard Specification for Mortar for Unit Masonry 2019a, with Editorial Revision.

H. ASTM C404 - Standard Specification for Aggregates for Masonry Grout 2018.

I. ASTM C476 - Standard Specification for Grout for Masonry 2023.

J. ASTM C1019 - Standard Test Method for Sampling and Testing Grout for Masonry 2020.

K. ASTM C1714/C1714M - Standard Specification for Preblended Dry Mortar Mix for Unit Masonry 2019a.

L. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures 2022, with Errata.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Include design mix and indicate whether the Proportion or Property specification of ASTM C270 is to be used. Also include required environmental conditions and admixture limitations.

C. Samples: Submit two samples of mortar, illustrating mortar color and color range.

### 1.05 QUALITY ASSURANCE

A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.

### 1.06 DELIVERY, STORAGE, AND HANDLING

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

### 1.07 FIELD CONDITIONS

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

B. Maintain materials and surrounding air temperature to minimum 40 degrees F prior to, during, and 48 hours after completion of masonry work.

C. Maintain materials and surrounding air temperature to maximum 90 degrees F prior to, during, and 48 hours after completion of masonry work.

## PART 2 PRODUCTS

### 2.01 MORTAR AND GROUT APPLICATIONS

A. At Contractor's option, mortar and grout may be field-mixed from packaged dry materials, made from factory premixed dry materials with addition of water only, or ready-mixed.

B. Mortar Color: Color as selected by architect from manufacturers full range.

C. Mortar Mix Designs: ASTM C270, Property Specification.
   1. Masonry below grade and in contact with earth: Type S.
   2. Exterior Masonry Veneer: Type N.
   3. Exterior Cavity Walls: Type S mortar with Type N pointing mortar.
   4. Exterior, Loadbearing Masonry: Type N.
   5. Exterior, Non-loadbearing Masonry: Type N.
   6. Interior, Loadbearing Masonry: Type N.
   7. Interior, Non-loadbearing Masonry: Type N.

D. Grout Mix Designs:
   1. Bond Beams and Lintels: 3,000 psi strength at 28 days; 8-10 inches slump; provide premixed type in accordance with ASTM C 94/C 94M.
      a. Fine grout for spaces with smallest horizontal dimension of 2 inches or less.
      b. Coarse grout for spaces with smallest horizontal dimension greater than 2 inches.

### 2.02 MATERIALS

A. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C1714/C1714M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
   1. Color: To be selected from manufacturers full range of colors..

B. Portland Cement: ASTM C150/C150M.
   1. Type: Type I - Normal; ASTM C150/C150M.
   2. Color: To be selected from manufacturers full range of colors.

C. Masonry Cement: ASTM C91/C91M.
   1. Type: Type N; ASTM C91/C91M.

D. Hydrated Lime: ASTM C207, Type S.

E. Quicklime: ASTM C5, non-hydraulic type.

F. Mortar Aggregate: ASTM C144.

G. Grout Aggregate: ASTM C404.

H. Water: Clean and potable.

### 2.03 MORTAR MIXING

A. Thoroughly mix mortar ingredients using mechanical batch mixer, in accordance with ASTM C270 and in quantities needed for immediate use.

B. Maintain sand uniformly damp immediately before the mixing process.

C. Add admixtures in accordance with manufacturer's instructions; mix uniformly.

D. Do not use anti-freeze compounds to lower the freezing point of mortar.

E. If water is lost by evaporation, re-temper only within two hours of mixing.

### 2.04 GROUT MIXING

A. Mix grout in accordance with ASTM C94/C94M.

B. Thoroughly mix grout ingredients in quantities needed for immediate use in accordance with ASTM C476 for fine and coarse grout.

C. Add admixtures in accordance with manufacturer's instructions; mix uniformly.

D. Do not use anti-freeze compounds to lower the freezing point of grout.

## PART 3 EXECUTION

### 3.01 PREPARATION

A. Plug clean-out holes for grouted masonry with block masonry units. Brace masonry to resist wet grout pressure.

### 3.02 INSTALLATION

A. Install mortar and grout to requirements of section(s) in which masonry is specified.

B. Work grout into masonry cores and cavities to eliminate voids.

C. Do not install grout in lifts greater than 16 inches without consolidating grout by rodding.

D. Do not displace reinforcement while placing grout.

E. Remove excess mortar from grout spaces.

### 3.03 GROUTING

A. Use either high-lift or low-lift grouting techniques, at Contractor's option, subject to other limitations of Contract Documents.

B. Low-Lift Grouting:
   1. Limit height of pours to 12 inches.
   2. Limit height of masonry to 16 inches above each pour.
   3. Pour grout only after vertical reinforcing is in place; place horizontal reinforcing as grout is poured. Prevent displacement of bars as grout is poured.
   4. Place grout for each pour continuously and consolidate immediately; do not interrupt pours for more than 1-1/2 hours.

C. High-Lift Grouting:
   1. Verify that horizontal and vertical reinforcement is in proper position and adequately secured before beginning pours.
   2. Place grout for spanning elements in single, continuous pour.

### 3.04 FIELD QUALITY CONTROL

A. An independent testing agency will perform field tests, in accordance with provisions of Section 01 4000 - Quality Requirements.

**END OF SECTION**

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**SECTION 04 2000**
**UNIT MASONRY**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Concrete block.

B. Decorative block.

C. Mortar and grout.

D. Reinforcement and anchorage.

E. Flashings.

F. Accessories.

### 1.02 RELATED REQUIREMENTS

A. Section 03 2000 - Concrete Reinforcing: Reinforcing steel for grouted masonry.

B. Section 04 0511 - Masonry Mortaring and Grouting.

C. Section 05 5000 - Metal Fabrications: Loose steel lintels.

D. Section 07 9200 - Joint Sealants: Sealing control and expansion joints.

### 1.03 REFERENCE STANDARDS

A. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units 2022.

B. ASTM C270 - Standard Specification for Mortar for Unit Masonry 2019a, with Editorial Revision.

C. ASTM C744 - Standard Specification for Prefaced Concrete and Calcium Silicate Masonry Units 2021.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, and masonry accessories.

C. Samples: Submit four samples of decorative block units to illustrate color, texture, and extremes of color range.

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.

## PART 2 PRODUCTS

### 2.01 CONCRETE MASONRY UNITS

A. Concrete Block: Comply with referenced standards and as follows:
   1. Size: Standard units with nominal face dimensions of 8 by 16 inches and nominal depths as indicated on drawings for specific locations.
   2. Special Shapes: Provide nonstandard blocks configured for corners.
      a. Provide bullnose units for outside corners.
   3. Load-Bearing Units: ASTM C90, normal weight.
      a. Exposed Faces: Special color and texture where indicated, as follows:
      b. Pattern: Split Faced at new home and visitors dugout walls).
         1) Two colors of split face at dugouts, as shown on drawings.
   4. Pre-Faced Units: ASTM C90, hollow block, with smooth resinous facing complying with ASTM C744.
      a. Colors and styles: As indicated on drawings.

## 2.02 MORTAR AND GROUT MATERIALS

A. Mortar and Grout: As specified in Section 04 0511.

## 2.03 REINFORCEMENT AND ANCHORAGE

A. Manufacturers:
   1. Blok-Lok Limited: www.blok-lok.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

B. Reinforcing Steel: Type specified in Section 03 2000; size as indicated on drawings; galvanized finish.

C. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.

## 2.04 FLASHINGS

A. Metal Flashing Materials:
   1. Prefabricated Metal Flashing: Smooth fabricated 12 oz/sq ft copper flashing for surface mounted conditions.

## 2.05 ACCESSORIES

A. Preformed Control Joints: Rubber material. Provide with corner and tee accessories, fused joints.
   1. Manufacturers:
      a. Blok-Lok Limited: www.blok-lok.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

B. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.

## 2.06 MORTAR AND GROUT MIXING

A. Mortar for Unit Masonry: ASTM C270, using the Proportion Specification (SEE Specificatrion Section 04 0511)

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive masonry.

B. Verify that related items provided under other sections are properly sized and located.

## 3.02 PREPARATION

A. Direct and coordinate placement of metal anchors supplied for installation under other sections.

B. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

## 3.03 COURSING

A. Establish lines, levels, and coursing indicated. Protect from displacement.

B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.

C. Concrete Masonry Units and split face units:
   1. Bond: Running.
   2. Coursing: One unit and one mortar joint to equal 8 inches.
   3. Mortar Joints: Concave.

## 3.04 PLACING AND BONDING

A. Lay hollow masonry units with face shell bedding on head and bed joints.

B. Remove excess mortar and mortar smears as work progresses.

### 3.05 REINFORCEMENT AND ANCHORAGE - GENERAL

A. Unless otherwise indicated on drawings or specified under specific wall type, install horizontal joint reinforcement 16 inches on center.

### 3.06 CONTROL AND EXPANSION JOINTS

A. Do not continue horizontal joint reinforcement through control or expansion joints.

B. Install preformed control joint device in continuous lengths. Seal butt and corner joints in accordance with manufacturer's instructions.

### 3.07 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests, as specified in Section 01 4000 - Quality Requirements.

### 3.08 CLEANING

A. Remove excess mortar and mortar droppings.

B. Clean soiled surfaces with cleaning solution.

### 3.09 PROTECTION

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

**END OF SECTION**

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**SECTION 05 1200**
**STRUCTURAL STEEL FRAMING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Structural steel framing members.

B. Bearing Plates.

C. Grouting under bearing plates.

### 1.02 RELATED REQUIREMENTS

A. Section 05 5000 - Metal Fabrications: Steel fabrications affecting structural steel work.

### 1.03 REFERENCE STANDARDS

A. AISC (MAN) - Steel Construction Manual 2023.

B. AISC 303 - Code of Standard Practice for Steel Buildings and Bridges 2022.

C. ASTM A36/A36M - Standard Specification for Carbon Structural Steel 2019.

D. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2023.

E. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength 2021.

F. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes 2021a.

G. ASTM A992/A992M - Standard Specification for Structural Steel Shapes 2022.

H. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination 2020.

I. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification 2021.

J. AWS D1.1/D1.1M - Structural Welding Code - Steel 2020, with Errata (2023).

K. SSPC-SP 3 - Power Tool Cleaning 2018.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings:
   1. Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.
   2. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths.

C. Manufacturer's Mill Certificate: Certify that products meet or exceed specified requirements.

### 1.05 QUALITY ASSURANCE

A. Fabricate structural steel members in accordance with AISC (MAN) "Steel Construction Manual."

B. Fabricator: Company specializing in performing the work of this section with minimum 10 years of documented experience.

C. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M and no more than 12 months before start of scheduled welding work.

D. Erector: Company specializing in performing the work of this section with minimum 10 years of documented experience.

E. Design connections not detailed on drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located.

## PART 2 PRODUCTS

### 2.01 MATERIALS

A. Steel Angles and Plates: ASTM A36/A36M.

B. Steel W Shapes and Tees: ASTM A992/A992M.

C. Structural Bolts and Nuts: Carbon steel, ASTM A307, Grade A and galvanized in compliance with ASTM A153/A153M Class C.

D. Grout: ASTM C1107/C1107M; Non-shrink; premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
   1. Minimum Compressive Strength at 48 Hours: 2,000 pounds per square inch.
   2. Minimum Compressive Strength at 28 Days: 7,000 pounds per square inch.

E. Shop and Touch-Up Primer: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.

F. Touch-Up Primer for Galvanized Surfaces: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.

### 2.02 FABRICATION

A. Shop fabricate to greatest extent possible.

### 2.03 FINISH

A. Prepare structural component surfaces in accordance with SSPC-SP 3.

B. Shop prime structural steel members. Do not prime surfaces that will be fireproofed, field welded, or in contact with concrete.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that conditions are appropriate for erection of structural steel and that the work may properly proceed.

### 3.02 ERECTION

A. Erect structural steel in compliance with AISC 303.

B. Grout solidly between column plates and bearing surfaces, and beam to masonry bearing plates. Complying with manufacturer's instructions for nonshrink grout. Trowel grouted surfaces smooth..

### 3.03 TOLERANCES

A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.

B. Maximum Offset From True Alignment: 1/4 inch.

### 3.04 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests, as specified in Section 01 4000 - Quality Requirements.

**END OF SECTION**

**SECTION 05 4000**
**COLD-FORMED METAL FRAMING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Formed steel stud exterior wall and interior wall framing.

B. Formed steel joist and purlin framing and bridging.

### 1.02 REFERENCE STANDARDS

A. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members 2016, with Supplement (2020).

B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2023.

C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2023.

D. ASTM C955 - Standard Specification for Cold-Formed Steel Structural Framing Members 2018, with Editorial Revision.

E. ASTM C1007 - Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories 2020.

F. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification 2021.

G. AWS D1.1/D1.1M - Structural Welding Code - Steel 2020, with Errata (2023).

H. AWS D1.3/D1.3M - Structural Welding Code - Sheet Steel 2018, with Errata (2022).

I. SSPC-Paint 20 - Zinc-Rich Coating (Type I - Inorganic, and Type II - Organic) 2019.

### 1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide manufacturer's data on factory-made framing connectors, showing compliance with requirements.

C. Shop Drawings: Indicate component details, framed openings, bearing, anchorage, loading, welds, and type and location of fasteners, and accessories or items required of related work.
   1. Indicate stud and ceiling joist layout.
   2. Describe method for securing studs to tracks and for bolted framing connections.
   3. Design data:
      a. Shop drawings signed and sealed by a professional structural engineer.
   4. Calculations for loadings and stresses of specially fabricated framing, signed and sealed by a professional structural engineer.
   5. Details and calculations for factory-made framing connectors, signed and sealed by a professional structural engineer.

D. Manufacturer's Installation Instructions: Indicate special procedures, conditions requiring special attention .

E. Designer's Qualification Statement.

F. Manufacturer's Qualification Statement.

G. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated no more than 12 months before the start of scheduled welding work.

### 1.04 QUALITY ASSURANCE

A. Designer Qualifications: Design framing system under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located.

B. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M and AWS D1.3/D1.3M and dated no more than 12 months before start of scheduled welding work.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Metal Framing:
   1. ClarkDietrich: www.clarkdietrich.com/#sle.
   2. Marino: www.marinoware.com/#sle.
   3. The Steel Network, Inc: www.SteelNetwork.com/#sle.
   4. Substitutions: See Section 01 6000 - Product Requirements.

B. Framing Connectors and Accessories:
   1. Same manufacturer as metal framing.
   2. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 FRAMING SYSTEM

A. Provide primary and secondary framing members, bridging, bracing, plates, gussets, clips, fittings, reinforcement, and fastenings as required to provide a complete framing system.

B. Design Requirements: Provide completed framing system having the following characteristics:
   1. Design: Calculate structural characteristics of cold-formed steel framing members according to AISI S100.
   2. Structural Performance: Design, engineer, fabricate, and erect to withstand specified design loads for project conditions within required limits.
   3. Live load deflection meeting the following, unless otherwise indicated:
      a. Exterior Walls: Maximum horizontal deflection under wind load of 1/360 of span.
      b. Design non-axial loadbearing framing to accommodate not less than 1/2 in vertical deflection.
   4. Able to tolerate movement of components without damage, failure of joint seals, undue stress on fasteners, or other detrimental effects when subject to seasonal or cyclic day/night temperature ranges.
   5. Able to accommodate construction tolerances, deflection of building structural members, and clearances of intended openings.

### 2.03 FRAMING MATERIALS

A. Studs and Track: ASTM C955; studs formed to channel, C- or Sigma-shaped with punched web; U-shaped track in matching nominal width and compatible height.
   1. Gauge and Depth: As indicated on drawings.
   2. Galvanized in accordance with ASTM A653/A653M, G90/Z275 coating.

B. Jamb Studs: Engineered, C-shaped with wide flanges, designed to replace conventional double-stud framing at openings.

C. Header: Engineered one-member or two-member assembly, with wide flanges, designed to replace conventional box or nested header framing at openings.
   1. Jamb Mounting Clips: Manufacturer's standard.
   2. Cripple Stud Clips: Manufacturer's standard.

D. Framing Connectors: Factory-made, formed steel sheet.
   1. Material: ASTM A653/A653M SS Grade 33 and 40 (minimum), with G90/Z275 hot dipped galvanized coating for base metal thickness less than 10 gauge, 0.1345 inch, and factory punched holes and slots.
   2. Structural Performance: Maintain load and movement capacity required by applicable code, when evaluated in accordance with AISI S100.

3. Movement Connections: Provide mechanical anchorage devices that accommodate movement using slotted holes, shouldered screws or screws and anti-friction or stepped bushings, while maintaining structural performance of framing. Provide movement connections where indicated on drawings.
    a. Where top of stud wall terminates below structural floor or roof, connect studs to structure in manner allowing vertical and horizontal movement of slab without affecting studs; allow for minimum movement of 1/2 inch.
    b. Provide top track with long leg track and head of wall movement connectors; minimum track length of 10 feet.
4. Fixed Connections: Provide non-movement connections for tie-down to foundation, floor-to-floor tie-down, roof-to-wall tie-down, joist hangers, gusset plates, and stiffeners.
5. Wall Stud Bridging Connections: Provide mechanical load-transferring devices that accommodate wind load torsion and weak axis buckling induced by axial compression loads. Provide bridging connections where indicated on the drawings.

**2.04 FASTENERS**

A. Self-Drilling, Self-Tapping Screws, Bolts, Nuts and Washers: Hot dip galvanized per ASTM A153/A153M.

B. Anchorage Devices: Powder actuated.

**2.05 ACCESSORIES**

A. Bracing, Furring, Bridging: Formed sheet steel, thickness determined for conditions encountered; finish to match framing components.

B. Plates, Gussets, Clips: Formed Sheet Steel, thickness determined for conditions encountered; finish to match framing components.

C. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20 Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify that substrate surfaces are ready to receive work.

B. Verify field measurements and adjust installation as required.

**3.02 INSTALLATION OF STUDS**

A. Install components in accordance with manufacturers' instructions and ASTM C1007 requirements.

B. Align floor and ceiling tracks; locate to wall layout. Secure in place with fasteners at maximum 24 inches on center. Coordinate installation of sealant with floor and ceiling tracks.

C. Construct corners using minimum of three studs. Install double studs at wall openings, door and window jambs.

D. Install intermediate studs above and below openings to align with wall stud spacing.

E. Provide deflection allowance in stud track, directly below horizontal building framing at non-load bearing framing.

F. Attach cross studs to studs for attachment of fixtures anchored to walls.

G. Install framing between studs for attachment of mechanical and electrical items, and to prevent stud rotation.

**3.03 INSTALLATION OF JOISTS AND PURLINS**

A. Install framing components in accordance with manufacturer's instructions.

B. Make provisions for erection stresses. Provide temporary alignment and bracing.

C. Place joists at 12 inches on center; not more than 2 inches from abutting walls, and connect joists to supports using fastener method.

D. Set ceiling joists parallel and level, with lateral bracing and bridging.

E. Provide web stiffeners at reaction points.

**END OF SECTION**

**SECTION 05 5000**
**METAL FABRICATIONS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Shop fabricated steel and aluminum items.

### 1.02 RELATED REQUIREMENTS

A. Section 04 2000 - Unit Masonry: Placement of metal fabrications in masonry.

B. Section 05 5213 - Pipe and Tube Railings.

### 1.03 REFERENCE STANDARDS

A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel 2019.

B. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless 2022.

C. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength 2021.

D. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes 2021a.

E. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes 2021.

F. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination 2020.

G. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification 2021.

H. AWS D1.1/D1.1M - Structural Welding Code - Steel 2020, with Errata (2023).

I. AWS D1.2/D1.2M - Structural Welding Code - Aluminum 2014, with Errata (2020).

J. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer 2004.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.

1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.

C. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated no more than 12 months before start of scheduled welding work.

## PART 2 PRODUCTS

### 2.01 MATERIALS - STEEL

A. Steel Sections: ASTM A36/A36M.

B. Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish.

C. Mechanical Fasteners: Same material as or compatible with materials being fastened; type consistent with design and specified quality level.

D. Bolts, Nuts, and Washers: ASTM A307, Grade A, plain.

E. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.

F. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

**2.02 MATERIALS - ALUMINUM**

A. Extruded Aluminum: ASTM B221 (ASTM B221M), 6063 alloy, T6 temper.

B. Bolts, Nuts, and Washers: Stainless steel.

C. Welding Materials: AWS D1.2/D1.2M; type required for materials being welded.

**2.03 FABRICATION**

A. Fit and shop assemble items in largest practical sections, for delivery to site.

B. Fabricate items with joints tightly fitted and secured.

C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

D. Furnish components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

**2.04 FABRICATED ITEMS**

A. Bollards: Steel pipe, concrete filled, crowned cap, as detailed; prime paint finish.

B. Lintels: As detailed; prime paint finish.

**2.05 FINISHES - STEEL**

A. Prime paint steel items.

B. Prime Painting: One coat.

**2.06 FINISHES - ALUMINUM**

A. Exterior Aluminum Surfaces: Class I color anodized.

**2.07 FABRICATION TOLERANCES**

A. Squareness: 1/8 inch maximum difference in diagonal measurements.

B. Maximum Offset Between Faces: 1/16 inch.

C. Maximum Misalignment of Adjacent Members: 1/16 inch.

D. Maximum Bow: 1/8 inch in 48 inches.

E. Maximum Deviation From Plane: 1/16 inch in 48 inches.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify that field conditions are acceptable and are ready to receive work.

**3.02 PREPARATION**

A. Clean and strip primed steel items to bare metal where site welding is required.

B. Furnish setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

**3.03 INSTALLATION**

A. Install items plumb and level, accurately fitted, free from distortion or defects.

B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.

C. Field weld components as indicated on drawings.

D. Perform field welding in accordance with AWS D1.1/D1.1M.

E. Obtain approval prior to site cutting or making adjustments not scheduled.

F. After erection, prime welds, abrasions, and surfaces not shop primed , except surfaces to be in contact with concrete.

**3.04 TOLERANCES**

A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.

B. Maximum Offset From True Alignment: 1/4 inch.

C. Maximum Out-of-Position: 1/4 inch.

**END OF SECTION**

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**SECTION 05 5213**
**PIPE AND TUBE RAILINGS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Wall mounted handrails.

B. Stair railings and guardrails.

C. Free-standing railings at steps.

### 1.02 RELATED REQUIREMENTS

A. Section 03 3000 - Cast-in-Place Concrete: Placement of anchors in concrete.

B. Section 04 2000 - Unit Masonry: Placement of anchors in masonry.

C. Section 09 2116 - Gypsum Board Assemblies: Placement of backing plates in stud wall construction.

D. Section 09 9113 - Exterior Painting: Paint finish.

### 1.03 REFERENCE STANDARDS

A. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum 2020.

B. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

C. ASTM B241/B241M - Standard Specification for Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube 2022.

D. ASTM B429/B429M - Standard Specification for Aluminum-Alloy Extruded Structural Pipe and Tube 2020.

E. ASTM B483/B483M - Standard Specification for Aluminum and Aluminum-Alloy Drawn Tube and Drawn Pipe for General Purpose Applications 2021.

F. ASTM E935 - Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings 2021.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate profiles, sizes, connection attachments, anchorage, size and type of fasteners, and accessories.

### 1.05 QUALITY ASSURANCE

A. Structural Designer Qualifications: Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located, or personnel under direct supervision of such an engineer.

B. Fabricator Qualifications:
   1. A company specializing in manufacturing products specified in this section, with not less than ten years of documented experience.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Handrails and Railings:
   1. Alumi-Guard: www.alumi-guard.com/#sle.
   2. The Wagner Companies: www.wagnercompanies.com/#sle.
   3. Substitutions: See Section 01 6000 - Product Requirements.

## 2.02 RAILINGS - GENERAL REQUIREMENTS

A. Design, fabricate, and test railing assemblies in accordance with the most stringent requirements of applicable local code.

B. Concentrated Loads: Design railing assembly, wall rails, and attachments to resist a concentrated force of 200 pounds applied at any point on the top of the assembly and in any direction, without damage or permanent set. Test in accordance with ASTM E935

C. Allow for expansion and contraction of members and building movement without damage to connections or members.

D. Dimensions: See drawings for configurations and heights.
   1. Top Rails and Wall Rails: 1-1/2 inches diameter, round.
   2. Intermediate Rails: 1-1/2 inches diameter, round.
   3. Posts: 1-1/2 inches diameter, round.

E. Provide anchors and other components as required to attach to structure, made of same materials as railing components unless otherwise indicated; where exposed fasteners are unavoidable provide flush countersunk fasteners.
   1. For anchorage to concrete, provide inserts to be cast into concrete, for bolting anchors.
   2. For anchorage to masonry, provide brackets to be embedded in masonry, for bolting anchors.
   3. For anchorage to stud walls, provide backing plates, for bolting anchors.

F. Provide slip-on non-weld mechanical fittings to join lengths, seal open ends, and conceal exposed mounting bolts and nuts, including but not limited to elbows, T-shapes, splice connectors, flanges, escutcheons, and wall brackets.

## 2.03 ALUMINUM MATERIALS

A. Aluminum Tube: Minimum wall thickness of 0.127 inch; ASTM B429/B429M, ASTM B241/B241M, or ASTM B483/B483M.

B. Exposed Fasteners: Flush countersunk screws or bolts; consistent with design of railing.

## 2.04 FABRICATION

A. Accurately form components to suit specific project conditions and for proper connection to building structure.

B. Fit and shop assemble components in largest practical sizes for delivery to site.

C. Fabricate components with joints tightly fitted and secured. Provide spigots and sleeves to accommodate site assembly and installation.

## 2.05 ALUMINUM FINISHES

A. Class I Color Anodized Finish: AAMA 611 AA-M12C22A42 Integrally colored anodic coating not less than 0.7 mils thick.

B. Color: To be selected by Architect from manufacturer's full line.

C. Touch-Up Materials: As recommended by coating manufacturer for field application.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive work.

## 3.02 PREPARATION

A. Supply items required to be cast into concrete or embedded in masonry with setting templates, for installation as work of other sections.

B. Apply one coat of bituminous paint to concealed aluminum surfaces that will be in contact with cementitious or dissimilar materials.

### 3.03 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install components plumb and level, accurately fitted, free from distortion or defects, with tight joints.

C. Install railings in compliance with ADA Standards for accessible design at applicable locations.

D. Anchor railings securely to structure.

E. Conceal anchor bolts and screws whenever possible. Where not concealed, use flush countersunk fastenings.

**END OF SECTION**

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**SECTION 06 1000**
**ROUGH CARPENTRY**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Structural dimension lumber framing.

B. Rough opening framing for doors, windows, and roof openings.

C. Sheathing.

D. Roof-mounted curbs.

E. Miscellaneous framing and sheathing.

F. Concealed wood blocking, nailers, and supports.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.

B. Section 03 3000 - Cast-in-Place Concrete: Setting anchors in concrete.

C. Section 05 5000 - Metal Fabrications: Miscellaneous steel connectors and support angles for wood framing.

D. Section 07 2500 - Weather Barriers: Water-resistive barrier over sheathing.

E. Section 07 7200 - Roof Accessories: Prefabricated roof curbs.

### 1.03 REFERENCE STANDARDS

A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2023.

B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2023.

C. ASTM C557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing 2003 (Reapproved 2017).

D. AWC (WFCM) - Wood Frame Construction Manual for One- and Two-Family Dwellings 2018, with Errata (2019).

E. AWPA U1 - Use Category System: User Specification for Treated Wood 2023.

F. PS 2 - Performance Standard for Wood Structural Panels 2018.

G. PS 20 - American Softwood Lumber Standard 2021.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Samples: For rough carpentry members that will be exposed to view, submit two samples, 6x6 inch in size illustrating wood grain, color, and general appearance.

C. Manufacturer's Certificate: Certify that wood products supplied for rough carpentry meet or exceed specified requirements.

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

## PART 2 PRODUCTS

### 2.01 GENERAL REQUIREMENTS

A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.

1. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

**2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS**

A. Sizes: Nominal sizes as indicated on drawings, S4S.

B. Moisture Content: S-dry or MC19.

C. Joist, Rafter, and Small Beam Framing (2 by 6 through 4 by 16 ):
   1. Species: Allowed under grading rules.
   2. Grade: No. 1 and Better.

D. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
   1. Lumber: S4S, No. 2 or Standard Grade.
   2. Boards: Standard or No. 3.

**2.03 EXPOSED DIMENSION LUMBER**

A. Sizes: Nominal sizes as indicated on drawings.

B. Surfacing: S4S.

C. Moisture Content: S-dry or MC19.

D. Rafter Framing (2 by 6 through 4 by 16 ):
   1. Species: Redwood.
   2. Grade: Select Heart.

**2.04 STRUCTURAL COMPOSITE LUMBER**

A. At Contractor's option, structural composite lumber may be substituted for concealed dimension lumber and timbers.

B. Structural Composite Lumber: Factory fabricated beams, headers, and columns, of sizes and types indicated on drawings; structural capacity as published by manufacturer.
   1. Beams: Use laminated veneer lumber, laminated strand lumber, or parallel strand lumber with manufacturer's published modulus of elasticity, E: 1,800,000 psi, minimum.

**2.05 CONSTRUCTION PANELS**

A. Roof Sheathing: Oriented strand board structural wood panel, PS 2, with factory laminated roofing underlayment layer.
   1. Sheathing Panel:
      a. Grade: Structural 1 Sheathing.
      b. Size: 4 feet wide by 8 feet long.
      c. Performance Category: 5/8 PERF CAT.
      d. Span Rating: 40/20.
      e. Edge Profile: Square edge.
   2. Integral Roofing Underlayment Layer: Medium density, phenolic impregnated kraft paper overlay.
   3. Seam Tape: Manufacturer's standard pressure-sensitive, self-adhering, cold-applied seam tape consisting of polyolefin film with acrylic adhesive.

**2.06 ACCESSORIES**

A. Fasteners and Anchors:
   1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.

2. Anchors: Toggle bolt type for anchorage to hollow masonry.

B. Joist Hangers: Hot dipped galvanized steel, sized to suit framing conditions.
   1. For contact with preservative treated wood in exposed locations, provide minimum G185 galvanizing complying with ASTM A653/A653M.

C. General Purpose Construction Adhesives: Comply with ASTM C557.

**2.07 FACTORY WOOD TREATMENT**

A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.

**PART 3 EXECUTION**

**3.01 PREPARATION**

A. Coordinate installation of rough carpentry members specified in other sections.

**3.02 INSTALLATION - GENERAL**

A. Select material sizes to minimize waste.

B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.

C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

**3.03 FRAMING INSTALLATION**

A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.

B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.

C. Install structural members full length without splices unless otherwise specifically detailed.

D. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes, AWC (WFCM) Wood Frame Construction Manual, and _____.

**3.04 BLOCKING, NAILERS, AND SUPPORTS**

A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.

B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to authorities having jurisdiction may be used in lieu of solid wood blocking.

C. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.

D. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.

E. Where ceiling-mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is explicitly indicated.

**3.05 ROOF-RELATED CARPENTRY**

A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.

B. Provide wood curb at each roof opening except where prefabricated curbs are specified and where specifically indicated otherwise; form corners by alternating lapping side members.

**3.06 TOLERANCES**

A. Framing Members: 1/4 inch from true position, maximum.

B. Variation from Plane, Other than Floors: 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

**END OF SECTION**

**SECTION 06 2000**
**FINISH CARPENTRY**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Finish carpentry items.

B. Hardware and attachment accessories.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.

B. Section 06 1000 - Rough Carpentry: Support framing, grounds, and concealed blocking.

C. Section 06 4100 - Architectural Wood Casework: Shop fabricated custom cabinet work.

### 1.03 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition 2014, with Errata (2016).

C. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards 2021, with Errata.

D. BHMA A156.9 - Cabinet Hardware 2020.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data:
   1. Provide manufacturer's product data, storage and handling instructions for factory-fabricated units.

C. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
   1. Provide information as required by AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS).

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. Store finish carpentry items under cover, elevated above grade, and in a dry, well-ventilated area not exposed to heat or sunlight.

B. Protect from moisture damage.

## PART 2 PRODUCTS

### 2.01 FINISH CARPENTRY ITEMS

A. Quality Standard: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.

B. Interior Woodwork Items:
   1. Moldings, Bases, Casings, and Miscellaneous Trim: Clear white pine; prepare for paint finish.

### 2.02 FASTENINGS

A. Fasteners: Of size and type to suit application; _____ finish in concealed locations and _____ finish in exposed locations.

### 2.03 ACCESSORIES

A. Adhesive: Type recommended by fabricator to suit application.

B. Lumber for Shimming, Blocking, and _____: Softwood lumber of indicated species.

C. Wood Filler: Solvent base, tinted to match surface finish color.

## 2.04 HARDWARE

A. Countertop Support Brackets: Fixed, L-shaped, corner reinforced, face-of-stud mounting.
   1. Material: Steel.
      a. Finish: Manufacturer's standard, factory-applied, textured powder coat.
      b. Color: Black.

## 2.05 FABRICATION

A. Shop assemble work for delivery to site, permitting passage through building openings.

B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify adequacy of backing and support framing.

## 3.02 INSTALLATION

A. Install custom fabrications in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade indicated.

B. Set and secure materials and components in place, plumb and level.

C. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.

**END OF SECTION**

**SECTION 07 2100**
**THERMAL INSULATION**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Board insulation and integral vapor retarder at underside of floor slabs and over roof deck.

B. Batt insulation in interior wall construction.

### 1.02 RELATED REQUIREMENTS

A. Section 06 1000 - Rough Carpentry: Installation requirements for board insulation over steep slope roof sheathing or roof structure.

### 1.03 REFERENCE STANDARDS

A. ASTM C553 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications 2013 (Reapproved 2019).

B. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation 2022.

C. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2023.

D. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board 2023.

E. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.

## PART 2 PRODUCTS

### 2.01 APPLICATIONS

A. Insulation Under Concrete Slabs: Extruded polystyrene (XPS) board.

B. Insulation at Perimeter of Foundation: Extruded polystyrene (XPS) board.

C. Insulation in Metal Framed Walls: Batt insulation with no vapor retarder.

D. Insulation Over Roof Deck: Polyisocyanurate board.

### 2.02 FOAM BOARD INSULATION MATERIALS

A. Expanded Polystyrene (EPS) Board Insulation: Comply with ASTM C578.
   1. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
   2. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
   3. Board Size: 48 inch by 96 inch.
   4. Board Thickness: 1-1/2 inch.
   5. Board Edges: Square.
   6. Products:
      a. Atlas Molded Products, a Division of Atlas Roofing Corporation; ThermalStar EPS Wall Insulation Board: www.atlasmoldedproducts.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

B. Extruded Polystyrene (XPS) Board Insulation: Comply with ASTM C578 with either natural skin or cut cell surfaces.
   1. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
   2. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.

3. Type and Thermal Resistance, R-value: Type IV, 5.0 (0.88), minimum, per 1 inch thickness at 75 degrees F mean temperature.
4. Products:
   a. DuPont de Nemours, Inc; Styrofoam Brand _____: building.dupont.com/#sle.
   b. Owens Corning Corporation; FOAMULAR Type ___ Extruded Polystyrene (XPS) Insulation: www.ocbuildingspec.com/#sle.
   c. Substitutions: See Section 01 6000 - Product Requirements.

C. Polyisocyanurate (ISO) Board Insulation: Rigid cellular foam, comply with ASTM C1289.
1. Classifications:
   a. Type I: Faced with aluminum foil on both major surfaces of the core foam.
      1) Class 1 - Non-reinforced core foam.
      2) Compressive Strength: 16 psi, minimum.
      3) Thermal Resistance, R-value: At 1-1/2 inch thick; 9.0, minimum, at 75 degrees F.
2. Board Size: 48 inch by 96 inch.
3. Board Thickness: 1.5 inch.
4. Tapered Board: Slope as indicated; minimum thickness 1 inch; fabricate of fewest layers possible.
5. Products:
   a. Atlas Roofing Corporation; ACFoam-II Polyiso Roof Insulation: www.atlasroofing.com/#sle.
   b. Carlisle Coatings & Waterproofing, Inc; R2+ Matte: www.carlisleccw.com/#sle.
   c. DuPont de Nemours, Inc; Thermax Brand _____: building.dupont.com/#sle.
   d. GAF; EnergyGuard Polyiso Insulation: www.gaf.com/#sle.
   e. Substitutions: See Section 01 6000 - Product Requirements.

## 2.03 MINERAL FIBER BLANKET INSULATION MATERIALS

A. Mineral Wool Blanket Thermal Insulation: Flexible or semi-rigid preformed insulation, complying with ASTM C665.
1. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
2. Thermal Resistance: See drawings.
3. Products:
   a. Johns Manville; MinWool Sound Attenuation Fire Batts: www.jm.com/#sle.
   b. Knauf Insulation; EcoBatt Insulation: www.knaufinsulation.com/#sle.
   c. Substitutions: See Section 01 6000 - Product Requirements.

## 2.04 ACCESSORIES

A. Interior Vapor Retarder: Modified polyethylene/polyacrylate (PE/PA) film reinforced with polyethylene terephthalate (PET) fibers, 12 mil, 0.012 inch thick.
1. Width: 4.9 feet.

B. Tape: Reinforced polyethylene film with acrylic pressure sensitive adhesive.
1. Application: Sealing of interior circular penetrations, such as pipes or cables.
2. Width: Are required for application.

C. Flashing Tape: Special reinforced film with high performance adhesive.
1. Application: Window and door opening flashing tape.
2. Width: As required for application.

D. Adhesive: Type recommended by insulation manufacturer for application.

# PART 3 EXECUTION

## 3.01 BOARD INSTALLATION AT FOUNDATION PERIMETER

A. Install boards horizontally on foundation perimeter.

B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

**3.02 BOARD INSTALLATION UNDER CONCRETE SLABS**

A. Place insulation under slabs on grade after base for slab has been compacted.

B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

C. Prevent insulation from being displaced or damaged while placing vapor retarder and placing slab.

**3.03 BATT INSTALLATION**

A. Install insulation and vapor retarder in accordance with manufacturer's instructions.

B. Install in exterior wall and roof spaces without gaps or voids. Do not compress insulation.

C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.

D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.

**END OF SECTION**

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**SECTION 07 5323**
**EPDM THERMOSET SINGLE-PLY ROOFING - CARLISLE**

## PART 2 PRODUCTS

### 1.01 ROOFING APPLICATIONS

A. EPDM Membrane Roofing: One ply membrane, fully adhered, over insulation.

B. Roofing Assembly Performance Requirements and Design Criteria:

### 1.02 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

A. Membrane:

B. Seaming Materials: As recommended by membrane manufacturer.

C. Flexible Flashing Material: Same material as membrane.

D. Base Flashing: Provide waterproof, fully adhered base flashing system at all penetrations, plane transitions, and terminations.

### 1.03 INSULATION

### 1.04 ACCESSORIES

A. Prefabricated Flashing Accessories:
   1. Corners and Seams: Same material as membrane, in manufacturer's standard thicknesses.
   2. Penetrations: Same material as membrane, with manufacturer's standard cut-outs, rigid inserts, clamping rings, and flanges.
   3. Sealant Pockets: Same material as membrane, with manufacturer's standard accessories, in manufacturer's standard configuration.
   4. Carlisle SynTec Systems; Sure-Seal Pressure-Sensitive Reinforced Universal Securement Strip (RUSS):

B. Membrane Adhesive: As recommended by membrane manufacturer.

C. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.

D. Sealants: As recommended by membrane manufacturer.

E. Cleaner: Manufacturer's standard, clear, solvent-based cleaner.

F. Edgings and Terminations: Manufacturer's standard edge and termination accessories.

**END OF SECTION**

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**SECTION 07 6100**
**SHEET METAL ROOFING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Sheet metal roofing, associated flashings, and underlayment.

B. Integral fascias.

C. Sealants for joints within sheet metal fabrications.

### 1.02 REFERENCE STANDARDS

A. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum 2020.

B. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate 2021a.

C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.

D. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection 2021.

E. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings 2020a.

F. ICC-ES AC188 - Acceptance Criteria for Roof Underlayments 2023.

G. SMACNA (ASMM) - Architectural Sheet Metal Manual 2012.

### 1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data on metal types, finishes, characteristics.

C. Color Samples: Submit two samples 2 by 2 inches in size illustrating metal finish color.

### 1.04 QUALITY ASSURANCE

A. Perform work in accordance with SMACNA (ASMM) requirements and standard details, except as otherwise noted.

B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. See Section 01 7419 - Construction Waste Management and Disposal for packaging waste requirements.

B. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

### 1.06 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Correct defective work within a 5-year period after Date of Substantial Completion. Defective work includes degradation of metal finish.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Sheet Metal Roofing Manufacturers:
   1. Petersen Aluminum Corporation; Snap-Clad: www.pac-clad.com/#sle.
   2. Sheffield Metals International; Galvalume: www.sheffieldmetals.com/#sle.
   3. Substitutions: See Section 01 6000 - Product Requirements.

## 2.02 SHEET MATERIALS

A. Aluminum Sheet: ASTM B209/B209M; 18-gauge, 0.040-inch minimum base metal thickness; anodized color to be selected finish.

## 2.03 FABRICATION

A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

B. Fabricate cleats of same material as sheet, thickness to match roofing sheet, and at least  wide, interlockable with sheet.

C. Fabricate starter strips, interlockable with sheet.

D. Form pieces in longest practical lengths.

E. Hem exposed edges on underside 1/2 inch; miter and seam corners.

F. Form material with standing seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.

## 2.04 FINISHES

A. Color Anodized Finish: AAMA 611 AA-M12C22A42/44 Class I integrally or electrolytically colored anodic coating not less than 0.7 mil, 0.0007 inch thick.

B. Color: As selected by Architect from manufacturer's full range of colors.

C. Primer Coat: On coated sheets, finish concealed side of sheet with primer compatible with finish system as recommended by finish system manufacturer.

## 2.05 ACCESSORIES

A. Fasteners: Galvanized steel, with soft neoprene washers.

B. Underlayment: Synthetic non-asphaltic sheet, intended by manufacturer for mechanically fastened roofing underlayment without sealed seams.
   1. Minimum Requirements: Comply with requirements of ICC-ES AC188 for non-self-adhesive sheet.
   2. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
   3. Ultraviolet Resistance and Weatherability: Approved in writing by manufacturer for exposure to weather for minimum of 12 months.
   4. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
   5. Fasteners: As specified by manufacturer and building code qualification report or approval, if any.

C. Concealed Sealants: Non-curing butyl sealant or butyl tape.

D. Exposed Sealants: ASTM C920 elastomeric sealant, with minimum movement capability as recommended by manufacturer for sealed substrates; color to match adjacent material.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify deck is dry and free of snow or ice. Verify joints in wood deck are solidly supported and fastened.

## 3.02 PREPARATION

A. Install starter and edge strips, and cleats before starting installation.

B. Back paint concealed metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch.

## 3.03 INSTALLATION

A. Eave Protection:

1. Extend eave protection sheet up roof slope at least 4 feet beyond exterior wall line of building.

B. Roofing:
   1. Apply underlayment over entire roof area, as follows:
   2. Apply slip sheet in one layer, laid loose.
   3. Cleat and seam sheet metal roofing joints.
   4. Use butyl tape to seal concealed joints between metal roofing surfaces.

C. Standing Seam Roofing:
   1. Lay sheets with long dimension perpendicular to eaves. Apply pans beginning at eaves.
   2. Lock cleats into seams and flatten.
   3. Stagger transverse joints of roofing sheets.
   4. At eaves and gable ends, terminate roofing by hooking over edge strip.
   5. Bend up one side edge 1-1/2 inches and other edge 1-3/4 inches.
   6. Make first fold 1/4-inch wide single fold and second fold 1/2 inch wide, providing locked portion of standing seam, five plies in thickness.
   7. Fold lower ends of seams at eaves over at 45 degree angle.

**END OF SECTION**

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**SECTION 07 8400**
**FIRESTOPPING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Firestopping systems.

B. Firestopping of joints and penetrations in fire-resistance-rated and smoke-resistant assemblies, whether indicated on drawings or not, and other openings indicated.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.

B. Section 01 7000 - Execution and Closeout Requirements: Cutting and patching.

C. Section 09 2116 - Gypsum Board Assemblies: Gypsum wallboard fireproofing.

### 1.03 REFERENCE STANDARDS

A. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials 2022.

B. ASTM E814 - Standard Test Method for Fire Tests of Penetration Firestop Systems 2023a.

C. ASTM E1966 - Standard Test Method for Fire-Resistive Joint Systems 2015 (Reapproved 2019).

D. ASTM E2174 - Standard Practice for On-Site Inspection of Installed Firestop Systems 2020a.

E. ASTM E2393 - Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers 2020a.

F. ITS (DIR) - Directory of Listed Products Current Edition.

G. FM (AG) - FM Approval Guide Current Edition.

H. SCAQMD 1168 - Adhesive and Sealant Applications 1989, with Amendment (2022).

I. UL 1479 - Standard for Fire Tests of Penetration Firestops Current Edition, Including All Revisions.

J. UL 2079 - Standard for Tests for Fire Resistance of Building Joint Systems Current Edition, Including All Revisions.

K. UL (FRD) - Fire Resistance Directory Current Edition.

### 1.04 SUBMITTALS

A. See Section 01 3300 for submittal procedures.

B. Product Data: Provide data on product characteristics, performance ratings, and limitations.

C. Sustainable Design Submittal: Submit VOC content documentation for nonpreformed materials.

D. Manufacturer's Installation Instructions: Indicate preparation and installation instructions.

E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

F. Manufacturer's qualification statement.

### 1.05 QUALITY ASSURANCE

A. Fire Testing: Provide firestopping assemblies of designs that provide the scheduled fire ratings when tested in accordance with methods indicated.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

## 1.06 FIELD CONDITIONS

A. Comply with firestopping manufacturer's recommendations for temperature and conditions during and after installation; maintain minimum temperature before, during, and for three days after installation of materials.

# PART 2 PRODUCTS

## 2.01 MANUFACTURERS

A. Firestopping Manufacturers:
   1. 3M Fire Protection Products; _____: www.3m.com/firestop/#sle.
   2. Tremco Commercial Sealants & Waterproofing; TREMstop Acrylic: www.tremcosealants.com/#sle.
   3. Substitutions: See Section 01 6000 - Product Requirements.

## 2.02 MATERIALS

A. Firestopping Materials: Any materials meeting requirements.

B. Volatile Organic Compound (VOC) Content: Provide products having VOC content lower than that required by SCAQMD 1168.

C. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories: Provide type of materials as required for tested firestopping assembly.

D. Fire Ratings: Refer to drawings for required systems and ratings.

## 2.03 FIRESTOPPING ASSEMBLY REQUIREMENTS

A. Floor-to-Floor (FF), Floor-to-Wall (FW), Head-of-Wall (HW), and Wall-to-Wall (WW) Joints, Except Perimeter, Where Both Are Fire-Rated: Use system that has been tested according to ASTM E1966 or UL 2079 to have fire resistance F Rating equal to required fire rating of the assembly in which the joint occurs.

B. Through Penetration Firestopping: Use system that has been tested according to ASTM E814 to have fire resistance F Rating equal to required fire rating of penetrated assembly.

## 2.04 FIRESTOPPING FOR FLOOR-TO-FLOOR, FLOOR-TO-WALL, HEAD-OF-WALL, AND WALL-TO-WALL JOINTS

A. Concrete and Concrete Masonry Walls and Floors:
   1. Floor-to-Floor Joints:
      a. 2 Hour Construction: UL System FF-D-1013; Hilti CFS-SP WB Firestop Joint Spray and CP 672.
      b. 2 Hour Construction: UL System FF-D-1085; Tremco, TREMstop Acrylic Firestop Sealant.
   2. Head-of-Wall Joints at Concrete/Concrete Masonry Wall to Concrete Over Metal Deck Floor:
      a. 2 Hour Construction: UL System HW-D-0039; Specified Technologies Inc. ES Elastomeric Firestop Sealant.
      b. 2 Hour Construction: UL System HW-D-0181; Hilti CFS-SP WB Firestop Joint Spray and CP 672.
   3. Head-of-Wall Joints at Concrete/Concrete Masonry Wall to Concrete Floor:
      a. 2 Hour Construction: UL System HW-D-0268; Hilti CP 606 Flexible Firestop Sealant.
      b. 2 Hour Construction: UL System HW-D-0312; Specified Technologies Inc. SIL Silicone Sealant.
   4. Concrete/Concrete Masonry Wall-to-Wall Joint Systems That Have Movement Capabilities (Dynamic-D):
      a. 2 Hour Construction: UL System WW-D-1077; Tremco, TREMstop Acrylic Firestop Sealant.
      b. 2 Hour Construction: UL System WW-D-0032; Hilti CP 606 Flexible Firestop Sealant.

B. Gypsum Board Walls:
   1. Wall-to-Wall Joints That Have Not Been Tested For Movement Capabilities (Static-S):
      a. 2 Hour Construction: UL System WW-S-0063; Specified Technologies Inc. SpeedFlex TTG Track Top Gasket.
      b. 1 Hour Construction: UL System WW-S-0063; Specified Technologies Inc. SpeedFlex TTG Track Top Gasket.
   2. Head-of-Wall Joints at Underside of Steel Beam and Concrete Over Metal Deck Floor with Sprayed On Fireproofing:
      a. 2 Hour Construction: UL System HW-D-0252; Specified Technologies Inc. AS200 Elastomeric Spray.
      b. 1 Hour Construction: UL System HW-D-0259; Hilti CFS-SP WB Firestop Joint Spray and CP 672.
   3. Head-of-Wall Joints at Concrete Over Metal Deck:
      a. 2 Hour Construction: UL System HW-D-0034; Specified Technologies Inc. ES Elastomeric Firestop Sealant.
      b. 1 Hour Construction: UL System HW-D-0034; Specified Technologies Inc. ES Elastomeric Firestop Sealant.
   4. Head-of-Wall Joints at Concrete Over Metal Deck, Wall Parallel to Ribs:
      a. 2 Hour Construction: UL System HW-D-0184; Hilti CP 606 Flexible Firestop Sealant.
      b. 1 Hour Construction: UL System HW-D-0184; Hilti CP 606 Flexible Firestop Sealant.
   5. Head-of-Wall Joints at Concrete Over Metal Deck, Wall Perpendicular to Ribs, Cut to Fit Ribs:
      a. 2 Hour Construction: UL System HW-D-0045; Hilti CP 606 Flexible Firestop Sealant.
      b. 1 Hour Construction: UL System HW-D-0045; Hilti CP 606 Flexible Firestop Sealant.
   6. Head-of-Wall Joints at Concrete Over Metal Deck, Wall Perpendicular to Ribs, Not Cut to Fit:
      a. 2 Hour Construction: UL System HW-D-0042; Hilti CFS-SP WB Firestop Joint Spray and CP 672.
      b. 1 Hour Construction: UL System HW-D-0045; Hilti CP 606 Flexible Firestop Sealant.

**2.05 FIRESTOPPING FOR FLOOR-TO-WALL MOVABLE JOINTS**

**2.06 FIRESTOPPING PENETRATIONS THROUGH CONCRETE AND CONCRETE MASONRY CONSTRUCTION**

A. Penetrations Through Floors or Walls By:
   1. Multiple Penetrations in Large Openings:
      a. 2 Hour Construction: UL System C-AJ-2863; HoldRite HydroFlame 100 Intumescent Firestop Sealant.
   2. Uninsulated Metallic Pipe, Conduit, and Tubing:
      a. 2 Hour Construction: UL System C-AJ-1090; Specified Technologies Inc. SSP Firestop Putty.
      b. 2 Hour Construction: UL System C-AJ-1198; Specified Technologies Inc. SIL Silicone Sealant.
   3. Uninsulated Non-Metallic Pipe, Conduit, and Tubing:
      a. 2 Hour Construction: UL System C-AJ-2167; Hilti FS-ONE MAX Intumescent Firestop Sealant.
   4. Cable Trays with Electrical Cables:
      a. 2 Hour Construction: UL System C-AJ-4094; Hilti CFS-BL Firestop Block.
   5. Insulated Pipes:
      a. 2 Hour Construction: UL System C-AJ-5048; Hilti FS-ONE MAX Intumescent Firestop Sealant, CP 606 Flexible Firestop Sealant, CP 601S Elastomeric Firestop Sealant, CP 604 Self-Leveling Firestop Sealant or CFS-S SIL GG Firestop Silicone Sealant Gun-Grade.

6. HVAC Ducts, Uninsulated:
    a. 2 Hour Construction: UL System C-AJ-7224; HoldRite HydroFlame 300 SL (Floors Only), or HoldRite HydroFlame 300 CG (Walls or Floors).

B. Penetrations Through Floors By:
1. Uninsulated Metallic Pipe, Conduit, and Tubing:
    a. 2 Hour Construction: UL System F-A-1110; Specified Technologies Inc. CID Cast-In Device.
    b. 2 Hour Construction: UL System F-A-1129; Specified Technologies Inc. Closet Flange Firestop Gasket.
2. Insulated Pipes:
    a. 2 Hour Construction: UL System F-A-5041; Specified Technologies Inc. CID Cast-In Device.

C. Penetrations Through Walls By:
1. Uninsulated Metallic Pipe, Conduit, and Tubing:
    a. 2 Hour Construction: UL System W-J-1067; Hilti FS-ONE MAX Intumescent Firestop Sealant.
    b. 1 Hour Construction: UL System W-J-1067; Hilti FS-ONE MAX Intumescent Firestop Sealant.
2. Insulated Pipes:
    a. 2 Hour Construction: UL System C-AJ-5090; Hilti FS-ONE MAX Intumescent Firestop Sealant.
    b. 1 Hour Construction: UL System C-AJ-5090; Hilti FS-ONE MAX Intumescent Firestop Sealant.
3. HVAC Ducts, Uninsulated:
    a. 2 Hour Construction: UL System W-J-7109; Hilti FS-ONE MAX Intumescent Firestop Sealant, or CP 606 Flexible Firestop Sealant.
4. HVAC Ducts, Insulated:
    a. 2 Hour Construction: UL System W-J-7112; Hilti FS-ONE MAX Intumescent Firestop Sealant.

**2.07 FIRESTOPPING PENETRATIONS THROUGH FRAMED FLOORS**

**2.08 FIRESTOPPING PENETRATIONS THROUGH GYPSUM BOARD WALLS**

A. Penetrations By:
1. Uninsulated Metallic Pipe, Conduit, and Tubing:
    a. 1 and 2 Hour Construction: UL System W-L-1558; HoldRite HydroFlame 100 Intumescent Firestop Sealant.
2. Uninsulated Non-Metallic Pipe, Conduit, and Tubing:
    a. 1 and 2 Hour Construction: UL System W-L-2710; HoldRite HydroFlame 200 Intumescent Firestop Sealant.
3. Insulated Pipes:
    a. 2 Hour Construction: UL System W-L-5298; Specified Technologies Inc. WF300 Intumescent Firestop Caulk (For Wood Frame Construction).
    b. 1 Hour Construction: UL System W-L-5014; Specified Technologies Inc. SSS Intumescent Firestop Sealant.
4. HVAC Ducts, Insulated:
    a. 2 Hour Construction: UL System W-L-7156; Hilti FS-ONE MAX Intumescent Firestop Sealant.
    b. 1 Hour Construction: UL System W-L-7156; Hilti FS-ONE MAX Intumescent Firestop Sealant.

**2.09 FIRESTOPPING SYSTEMS**

A. Firestopping: Any material meeting requirements.

1. Fire Ratings: Use system that is listed by FM (AG), ITS (DIR), or UL (FRD) and tested in accordance with ASTM E814, ASTM E119, or UL 1479 with F Rating equal to fire rating of penetrated assembly and minimum T Rating Equal to F Rating and in compliance with other specified requirements.
2. Fire Ratings: See drawings for required ratings.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify openings are ready to receive the work of this section.

### 3.02 PREPARATION

A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other materials that could adversely affect bond of firestopping material.

B. Remove incompatible materials that could adversely affect bond.

### 3.03 INSTALLATION

A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.

B. Do not cover installed firestopping until inspected by authorities having jurisdiction.

C. Install labeling required by code.

### 3.04 FIELD QUALITY CONTROL

A. Independent Testing Agency: Inspection agency employed and paid by Owner, will examine penetration firestopping in accordance with ASTM E2174 and ASTM E2393.

B. Repair or replace penetration firestopping and joints at locations where inspection results indicate firestopping or joints do not meet specified requirements.

### 3.05 CLEANING

A. Clean adjacent surfaces of firestopping materials.

### 3.06 PROTECTION

A. Protect adjacent surfaces from damage by material installation.

**END OF SECTION**

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**SECTION 07 9200**
**JOINT SEALANTS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Spray-applied joint sealants.

B. Nonsag gunnable joint sealants.

C. Joint backings and accessories.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions: Additional requirements for sealants and primers.

### 1.03 REFERENCE STANDARDS

A. ASTM C834 - Standard Specification for Latex Sealants 2017 (Reapproved 2023).

B. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.

C. ASTM C1193 - Standard Guide for Use of Joint Sealants 2016 (Reapproved 2023).

D. ASTM C1248 - Standard Test Method for Staining of Porous Substrate by Joint Sealants 2022.

E. SCAQMD 1168 - Adhesive and Sealant Applications 1989, with Amendment (2022).

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Submit manufacturer's technical datasheets for each product to be used; include the following:
   1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
   2. List of backing materials approved for use with the specific product.
   3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
   4. Substrates the product should not be used on.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Spray-Applied Sealants:
   1. CertainTeed Corporation; _____: www.certainteed.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

B. Nonsag Sealants:
   1. Bostik Inc; _____: www.bostik-us.com/#sle.
   2. Dow; _____: www.dow.com/#sle.
   3. Sherwin-Williams Company; _____: www.sherwin-williams.com/#sle.
   4. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 JOINT SEALANT APPLICATIONS

A. Scope:
   1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to:
      a. Wall expansion and control joints.
      b. Joints between door, window, and other frames and adjacent construction.
      c. Joints between different exposed materials.
      d. Openings below ledge angles in masonry.
      e. Other joints indicated below.

2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
    a. Joints between door, window, and other frames and adjacent construction.
    b. Other joints indicated below.

B. Exterior Joints: Use nonsag nonstaining silicone sealant, unless otherwise indicated.

C. Interior Joints: Use nonsag polyurethane sealant, unless otherwise indicated.

**2.03 JOINT SEALANTS - GENERAL**

A. Sealants and Primers: Provide products with acceptable levels of volatile organic compound (VOC) content; see Section 01 6116.

**2.04 NONSAG JOINT SEALANTS**

A. Nonstaining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 50 percent, minimum.
2. Nonstaining to Porous Stone: Nonstaining to light-colored natural stone when tested in accordance with ASTM C1248.
3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
4. Color: Match adjacent finished surfaces.

B. Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 25 percent, minimum.
2. Color: Match adjacent finished surfaces.

C. Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
1. Color: White.

D. Polymer Sealant: ASTM C920; single component, cured sealant is paintable and mold/mildew resistant, low odor and VOC, and ultraviolet (UV) resistant.
1. Color: White.

E. Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus ____ percent, minimum.

**2.05 ACCESSORIES**

A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify that joints are ready to receive work.

B. Verify that backing materials are compatible with sealants.

C. Verify that backer rods are of the correct size.

**3.02 PREPARATION**

A. Remove loose materials and foreign matter that could impair adhesion of sealant.

B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.

C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.

D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

### 3.03 INSTALLATION

A. Install this work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.

B. Provide joint sealant installations complying with ASTM C1193.

C. Install bond breaker backing tape where backer rod cannot be used.

D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.

E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.

F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

**END OF SECTION**

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**SECTION 08 1116**
**ALUMINUM DOORS AND FRAMES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Flush aluminum doors with fiberglass reinforced plastic (FRP) face sheets.

B. Aluminum frames.

### 1.02 RELATED REQUIREMENTS

A. Section 08 7100 - Door Hardware: Hardware for aluminum doors.

B. Section 08 8000 - Glazing: Glazing materials for aluminum doors and frames.

### 1.03 REFERENCE STANDARDS

A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights 2022.

B. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum 2020.

C. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

D. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.

E. ASTM E283/E283M - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen 2019.

F. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference 2000 (Reapproved 2023).

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Manufacturer's descriptive literature for each type of door; include information on fabrication methods.

C. Shop Drawings: Include elevations of each opening type.
   1. Verify dimensions by field measurements before fabrication and indicate on shop drawings.

D. Test Report: Certified test reports from qualified independent testing agency indicating doors comply with specified performance requirements.

### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with not less than five years of documented experience.

### 1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver aluminum components in manufacturer's standard protective packaging, palleted, crated, or banded together.

B. Inspect delivered components for damage and replace. Repaired components will not be accepted.

C. Store components in clean, dry, indoor area, under cover in manufacturer's packaging until installation.

D. Protect materials and finish from damage during handling and installation.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Flush Aluminum Doors with Fiberglass Reinforced Plastic (FRP) Face Sheets:
   1. Special-Lite, Inc; SL-17: www.special-lite.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 DOORS AND FRAMES

A. Flush Aluminum Doors with Fiberglass Reinforced Plastic (FRP) Face Sheets: Aluminum internal framing; no steel components.
   1. Thickness: 1-3/4 inches.
   2. Aluminum Finish: Class I - Color anodized.
   3. Facing: Seamless, ultraviolet stabilized laminated FRP sheet.
      a. Sheet Thickness: 0.12 inch, minimum.
      b. Texture - FRP: Sandstone.
      c. Color: As selected by Architect from Manufacturers' full line..

B. Aluminum Frames for Doors, Sidelights, or Transoms: Extruded aluminum, thermally broken hollow or C-shaped sections; no steel components.
   1. Finish: Class I - Natural anodized.

C. Dimensions and Shapes: As indicated on drawings; dimensions indicated are nominal.
   1. Provide the following clearances:
      a. Hinge and Lock Stiles: 1/8 inch.
      b. Between Meeting Stiles: 1/4 inch.
      c. At Top Rail and Bottom Rail: 1/8 inch.

### 2.03 COMPONENTS

A. Frames: Extruded aluminum shapes, not less than 0.062 inch thick, reinforced at hinge and strike locations.
   1. Corner Brackets: Extruded aluminum, fastened with stainless steel screws.
   2. Trim: Extruded aluminum, not less than 0.062 inch thick, removable snap-in type without exposed fasteners.

### 2.04 PERFORMANCE REQUIREMENTS

A. Provide door assemblies that have been designed and fabricated in compliance with specified performance requirements.

B. Water Leakage: No uncontrolled leakage on interior face when tested in accordance with ASTM E331 at differential pressure of 7.5 psf.

C. Air Leakage: Maximum of 0.1 cu ft/min/sq ft at 6.27 psf differential pressure, when tested in accordance with ASTM E283/E283M.

D. Overall U-value, Including Glazing: 0.35, minimum, measured on exterior door size required for this project.

### 2.05 FINISHES

A. Class I Natural Anodized Finish: Clear anodic coating; AAMA 611 AA-M12C22A41, minimum dry film thickness (DFT) of 0.7 mils, 0.0007 inch.

B. Class I Color Anodized Finish: Electrolytically deposited colored anodic coating; AAMA 611 AA-M12C22A44, minimum dry film thickness (DFT) of 0.7 mils, 0.0007 inch. Provide full range of manufacturer colors.

### 2.06 ACCESSORIES

A. Fasteners: Aluminum, non-magnetic stainless steel, or other material warranted by manufacturer as non-corrosive and compatible with aluminum components.

B. Brackets and Reinforcements: Manufacturer's high-strength aluminum units where feasible, otherwise, non-magnetic stainless steel or steel hot-dip galvanized in compliance with ASTM A123/A123M.

C. Bituminous Coating: Cold-applied asphaltic mastic, compounded for 30-mil thickness per coat.

## PART 3 EXECUTION

### 3.01 INSTALLATION

A. Install doors and frames in accordance with manufacturer's instructions and approved shop drawings.

B. Set frames plumb, square, level, and aligned to receive doors. Anchor frames to adjacent construction in strict accordance with manufacturer's recommendations and within specified tolerances.

C. Where aluminum surfaces contact metals other than stainless steel, zinc, or small areas of white bronze, protect from direct contact by painting dissimilar metal with heavy coating of bituminous paint.

D. Hang doors and adjust hardware to achieve specified clearances and proper door operation.

**END OF SECTION**

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**SECTION 08 1213**
**HOLLOW METAL FRAMES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Non-fire-rated hollow metal frames for non-hollow metal doors.

B. Fire-rated hollow metal frames for non-hollow metal doors.

### 1.02 RELATED REQUIREMENTS

A. Section 08 1416 - Flush Wood Doors: Non-hollow metal door for hollow metal frames.

B. Section 08 7100 - Door Hardware: Hardware, silencers, and weatherstripping.

### 1.03 REFERENCE STANDARDS

A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights 2022.

B. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

C. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors 2022.

D. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames 2020.

E. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100) 2023.

F. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2023.

G. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable 2021a.

H. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength 2023.

I. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete 2020.

J. ASTM C476 - Standard Specification for Grout for Masonry 2023.

K. BHMA A156.115 - Hardware Preparation in Steel Doors and Frames 2016.

L. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

M. ITS (DIR) - Directory of Listed Products Current Edition.

N. NAAMM HMMA 830 - Hardware Selection for Hollow Metal Doors and Frames 2002.

O. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames 2011.

P. NAAMM HMMA 840 - Guide Specifications For Receipt, Storage and Installation of Hollow Metal Doors and Frames 2017.

Q. NAAMM HMMA 861 - Guide Specifications for Commercial Hollow Metal Doors and Frames 2014.

R. NFPA 80 - Standard for Fire Doors and Other Opening Protectives 2022.

S. SDI 117 - Manufacturing Tolerances for Standard Steel Doors and Frames 2023.

T. UL (DIR) - Online Certifications Directory Current Edition.

U. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies Current Edition, Including All Revisions.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced grade standard.

C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and identifying location of different finishes, if any.

D. Manufacturer's Certificate: Certification that products meet or exceed specified requirements.

E. Manufacturer's qualification statement.

F. Installer's qualification statement.

### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.

B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

### 1.06 DELIVERY, STORAGE, AND HANDLING

A. Store in accordance with applicable requirements and in compliance with standards and/or custom guidelines as indicated.

B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Hollow Metal Frames with Integral Casings:
   1. Curries, an Assa Abloy Group company: www.assaabloydss.com/#sle.
   2. Republic Doors, an Allegion brand: www.republicdoor.com/#sle.
   3. Steelcraft, an Allegion brand: www.allegion.com/#sle.
   4. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 PERFORMANCE REQUIREMENTS

A. Hollow Metal Frames: AAMA/WDMA/CSA 101/I.S.2/A440 requirements for specific frame type:
   1. Performance Class (PC): AW.

B. Door Frame Type: Provide hollow metal door frames with integral casings.
   1. Interior Doors: Use frames with integral casings.

C. Steel Sheet: Comply with one or more of the following requirements; galvannealed steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.

D. Accessibility: Comply with ICC A117.1 and ADA Standards.

E. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior frame that is also indicated as being sound-rated must comply with the requirements specified for exterior frames and for sound-rated frames; where two requirements conflict, comply with the most stringent.

F. Hardware Preparations, Selections and Locations: Comply with BHMA A156.115, NAAMM HMMA 830, NAAMM HMMA 831 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.

G. Provide mortar guard boxes for hardware cut-outs in frames to be installed in masonry or to be grouted.

H. Frames in Masonry Walls: Size to suit masonry coursing with head member 4 inches high to fill opening without cutting masonry units.

I. Frames Wider than 48 Inches: Reinforce with steel channel fitted tightly into head of frame, and flush with top.

**2.03 HOLLOW METAL DOOR FRAMES WITH INTEGRAL CASINGS**

A. Interior Door Frames, Non-Fire Rated: Slip-on type at gypsum board walls, and knock-down type at masonry walls.
   1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
      a. Level 2 - Heavy-duty.
      b. Physical Performance Level B, 500,000 cycles; in accordance with ANSI/SDI A250.4.
      c. Frame Metal Thickness: 16 gauge, 0.053 inch, minimum.
      d. Zinc Coating: Manufacturer's standard coating thickness; ASTM A653/A653M.
   2. Frame Finish: Factory finished.

B. Fire-Rated Door Frames: Slip-on type at gypsum board walls, and knock-down type at masonry walls.
   1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
      a. Level 2 - Heavy-duty.
      b. Physical Performance Level B, 500,000 cycles; in accordance with ANSI/SDI A250.4.
      c. Frame Metal Thickness: 16 gauge, 0.053 inch, minimum.
   2. Fire Rating: As indicated on Door and Frame Schedule, tested in accordance with UL 10C or NFPA 252 ("positive pressure fire tests").
   3. Provide units listed and labeled by ITS (DIR) or UL (DIR).
      a. Attach fire rating label to each fire rated unit.
   4. Frame Finish: Factory finished.

**2.04 ACCESSORIES**

A. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.

B. Grout for Frames: Mortar grout complying with ASTM C476 with maximum slump of 4 inches as measured in accordance with ASTM C143/C143M for hand troweling in place; plaster grout and thinner pumpable grout are prohibited.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify existing conditions before starting work.

B. Verify that opening sizes and tolerances are acceptable.

C. Verify that finished walls are in plane to ensure proper door alignment.

**3.02 PREPARATION**

A. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation.

**3.03 INSTALLATION**

A. Install frames in accordance with manufacturer's instructions and related requirements of specified frame standards or custom guidelines indicated.

B. Install prefinished frames after painting and wall finishes are complete.

C. Install fire rated units in accordance with NFPA 80.

D. Coordinate frame anchor placement with wall construction.

E. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.

F. Install door hardware as specified in Section 08 7100.
   1. Comply with recommended practice for hardware placement of doors and frames in accordance with ANSI/SDI A250.6 or NAAMM HMMA 861.

G. Coordinate installation of electrical connections to electrical hardware items.

H. Touch up damaged factory finishes.

**3.04 TOLERANCES**

A. Clearances Between Door and Frame: Comply with related requirements of specified frame standards or custom guidelines indicated in accordance with SDI 117 or NAAMM HMMA 861.

B. Maximum Diagonal Distortion: 1/16 inch measured with straight edges, crossed corner to corner.

**3.05 SCHEDULE - SEE DRAWINGS**

A. Refer to Door and Frame Schedule on the drawings.

**END OF SECTION**

**SECTION 08 1416**
**FLUSH WOOD DOORS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Flush wood doors; flush and flush glazed configuration; fire-rated and non-rated.

### 1.02 RELATED REQUIREMENTS

A. Section 08 1213 - Hollow Metal Frames.

B. Section 08 7100 - Door Hardware.

C. Section 08 8000 - Glazing.

D. Section 09 9123 - Interior Painting: Field finishing of doors.

### 1.03 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition 2014, with Errata (2016).

C. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards 2021, with Errata.

D. ICC (IBC) - International Building Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

E. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies Current Edition, Including All Revisions.

F. WDMA I.S. 1A - Interior Architectural Wood Flush Doors 2021, with Errata (2022).

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.

C. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.

D. Samples: Submit two samples of door veneer, 4 by 4 inches4x4 in size illustrating wood grain, stain color, and sheen.

E. Warranty, executed in Owner's name.

### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than three years of documented experience.

### 1.06 DELIVERY, STORAGE, AND HANDLING

A. Package, deliver and store doors in accordance with specified quality standard.

B. Accept doors on site in manufacturer's packaging, and inspect for damage.

C. Protect doors with resilient packaging sealed with heat shrunk plastic; do not store in damp or wet areas or areas where sunlight might bleach veneer; seal top and bottom edges with tinted sealer if stored more than one week, and break seal on site to permit ventilation.

### 1.07 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Manufacturer Warranty: Provide manufacturer's warranty on interior doors for the life of the installation. Complete forms in Owner's name and register with manufacturer.

1. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Wood Veneer Faced Doors:
   1. Masonite Architectural; Aspiro Select Wood Veneer Doors: www.architectural.masonite.com/#sle.
   2. VT Industries, Inc: www.vtindustries.com/#sle.
   3. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 DOORS AND PANELS

A. Doors: See drawings for locations and additional requirements.
   1. Quality Standard: Custom Grade, Heavy Duty performance, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
   2. Wood Veneer Faced Doors: 5-ply unless otherwise indicated.

B. Interior Doors: 1-3/4 inches thick unless otherwise indicated; flush construction.
   1. Provide solid core doors at each location.
   2. Fire Rated Doors: Tested to ratings indicated on drawings in accordance with UL 10C - Positive Pressure; Underwriters Laboratories Inc (UL) or Intertek/Warnock Hersey (WHI) labeled without any visible seals when door is open.

### 2.03 DOOR AND PANEL CORES

A. Non-Rated Solid Core and 20 Minute Rated Doors: Type particleboard core (PC), plies and faces as indicated.

B. Fire-Rated Doors: Mineral core type, with fire resistant composite core (FD), plies and faces as indicated above; with core blocking as required to provide adequate anchorage of hardware without through-bolting.

### 2.04 DOOR FACINGS

A. Veneer Facing for Transparent Finish: Red oak, veneer grade in accordance with quality standard indicated, plain sliced (flat cut), with book match between leaves of veneer, running match of spliced veneer leaves assembled on door or panel face.

### 2.05 DOOR CONSTRUCTION

A. Fabricate doors in accordance with door quality standard specified.

B. Cores Constructed with stiles and rails:

C. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.

D. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.

E. Provide edge clearances in accordance with the quality standard specified.

### 2.06 FINISHES - WOOD VENEER DOORS

A. Finish work in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 5 - Finishing for grade specified and as follows:
   1. Transparent:
      a. System - 1, Lacquer, Nitrocellulose.
      b. Stain: As selected by Architect.
      c. Sheen: Flat.

### 2.07 ACCESSORIES

A. Hollow Metal Door Frames: See Section 08 1113.

B. Glazing: See Section 08 8000.

**PART 3 EXECUTION**

**3.01 INSTALLATION**

A. Install doors in accordance with manufacturer's instructions and specified quality standard.

B. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.

C. Use machine tools to cut or drill for hardware.

D. Coordinate installation of doors with installation of frames and hardware.

**END OF SECTION**

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**SECTION 08 1743**
**FRP/ ALUMINUM HYBRID DOORS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. SL-17 Pebble Grain FRP/ Aluminum Hybrid Door installed in Retrofit Aluminum Framing.

### 1.02 RELATED SECTIONS

A. Section 08 71 00 – Door Hardware.

### 1.03 REFRENCES

A. AAMA 1304 – Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems.

B. AAMA 1503-98 – Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections.

C. ANSI A250.4 – Test Procedure and Acceptance Criteria for Physical Endurance of Steel Doors and Hardware Reinforcing.

D. ASTM-B117 – Standard Practices for Operating Salt Spray (Fog) Apparatus.

E. ASTM-B209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

F. ASTM-B221 – Standard Specification for Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

G. ASTM-C518 – Standard test Method for Steady-State Thermal Transmission Properties by Means of Heat Flow Meter Apparatus.

H. ASTM-D256 – Standard Test Methods for Determining the Pendulum Impact Resistance of Plastics.

I. ASTM-D570 – Standard Test Method for Water Absorption of Plastics.

J. ASTM-D638 – Standard Test Method for Tensile Properties of Plastics.

K. ASTM-D790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

L. ASTM-D1621 – Standard Test Method for Compressive Properties of Rigid Cellular Plastics.

M. ASTM-D1622 – Standard Test Method for Apparent Density of Rigid Cellular Plastics.

N. ASTM-D1623 – Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics.

O. ASTM-D2126 – Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging.

P. ASTM-D2583 – Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impresser.

Q. ASTM-D3029 – Test Methods for Impact Resistance of Flat Rigid Plastic Specimens by Means of a Tup (Falling Weight) (Withdrawn 1995) (Replaced by ASTM-D5420).

R. ASTM-D5116 – Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/ Products.

S. ASTM-D5420 – Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact).

T. ASTM-D6670 – Standard Practice for Full-Scale Chamber Determination of Volatile Organic Emissions from Indoor Materials/ Products.

U. ASTM-E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.

V. ASTM-E90 – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.

W. ASTM-E283 – Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.

X. ASTM-E330 – Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.

Y. ASTM-E1886 – Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials.

Z. ASTM-E1996 – Standard Specification for Performance of Exterior Windows, Glazed Curtain Walls, Doors and Storm Shutters Impacted by Wind Borne Debris in Hurricanes.

AA. ASTM-F476 – Standard Test Methods for Security of Swinging Door Assemblies.

BB. ASTM-F1642-04 – Standard Test Method for Glazing Systems Subject to Air Blast Loading.

CC. NWWDA T.M. 7-90 – Cycle Slam Test Method.

DD. NFRC 100 – Procedure for Determining Fenestration Products U-Factors.

EE. NFRC 400 – Procedure for Determining Fenestration Products Air Leakage.

FF. TAS 201 – Impact Test Procedures.

GG. TAS 202 – Criteria for Testing Impact & Nonimpact Resistant Building Envelope Components Using Uniform Static Air Pressure.

HH. TAS 203 – Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.

**1.04 SUBMITTALS**

A. Must comply with Section 01 3300 – Submittal Procedures.

B. Action Submittals/ Informational Submittals.
   1. Product Data.
      a. Submit manufacturer's product data sheets, catalog pages illustrating the products, description of materials, components, fabrication, finishes, installation instructions, and applicable test reports.
   2. Shop Drawings.
      a. Submit manufacturer's shop drawings, including elevations, sections, and details indicating dimensions, tolerances, materials, fabrication, doors, panels, framing, hardware schedule, and finish.
   3. Samples.
      a. Submit manufacturer's door sample composed of door face sheet, core, framing and finish.
      b. Submit manufacturer's sample of standard colors for door face and frame.
   4. Testing and Evaluation Reports.
      a. Submit testing reports and evaluations provided by manufacturer conducted by and accredited independent testing agency certifying doors and frames comply with specified performance requirements listed in Section 2.04.
   5. Manufacturer Reports.
      a. Manufacturer's Project References.
         1) Submit list of successfully completed projects including project name, location, name of architect, type, and quantity of doors manufactured.

C. Closeout Submittals.
   1. Operation and Maintenance Manual.
      a. Submit manufacturer's maintenance and cleaning instructions for doors and frames, including maintenance and operating instructions for hardware.

2. Warranty Documentation.
    a. Submit manufacturer's standard warranty.

**1.05 QUALITY ASSURANCE**

A. Manufacturer's Qualifications.
    1. Continuously engaged in manufacturing of doors of similar type to that specified, with a minimum of 25 years concurrent successful experience.
    2. Door and frame components must be fabricated by same manufacturer.
    3. Evidence of a documented complaint resolution quality management system.

**1.06 DELIVERY, STORAGE, AND HANDLING**

A. Delivery.
    1. Deliver materials to site in manufacturer's original, unopened, containers and packaging.
    2. Labels clearly identifying opening, door mark, and manufacturer.

B. Storage.
    1. Store materials in a clean, dry area, indoors in accordance with manufacturer's instructions.

C. Handling.
    1. Protect materials and finish from damage during handling and installation.

**1.07 WARRANTY**

A. Warrant doors, frames, and factory installed hardware against failure in materials and workmanship, including excessive deflection, faulty operation, defects in hardware installation, and deterioration of finish or construction in excess of normal weathering.

B. Standard Period.
    1. Ten years starting on date of shipment.

C. Limited lifetime
    1. Covers failure of corner joinery, core deterioration, and delamination or bubbling of door skin and corrosion of all-fiberglass products while the door is in its specified application in its original installation.

D. Finish
    1. Fluropan painted aluminum: 10 years.
    2. Painted SL-17, SL-18, SL-19, SL-19-1, and SL-20 face sheets: 5 years.
    3. Painted AF-150 frames, AF-250 frames: 3 years.
    4. Anodized, aluminum: 10 years.
    5. Thresholds do not have a finish warranty.

**PART 2 PRODUCTS**

**2.01 FRP/ALUMINUM HYBRID DOORS**

A. Manufacturer. Basis of Design:
    1. Special-Lite, Inc.
        a. PO Box 6, Decatur, Michigan 49045.
        b. Toll Free (800) 821-6531, Phone (269) 423-7068, Fax (800) 423-7610.
        c. Web Site www.special-lite.com.

**2.02 DESCRIPTION**

A. Model.
    1. SL-17 Pebble Grain FRP/ Aluminum Hybrid Door.

B. Door Opening Size.
    1. As indicated on door schedule.

C. Construction.

1. Door Thickness.
    a. 1-3/4”.
2. Stiles & Rails.
    a. Aluminum extrusions made from 6063 aluminum alloys with a minimum temper of T5.
    b. Minimum 2-5/16” deep one-piece extrusion with have integral reglets to accept face sheet on both interior and exterior side of door which secure face sheet into place and permit flush appearance.
    c. Screw or snap in place applied caps are not acceptable.
    d. Top rails must have integral legs for interlocking continuous extruded aluminum flush cap.
    e. Bottom rails must have integral legs for interlocking continuous weather bar with single nylon brush weather stripping or manually adjustable SL-301 door bottom with two nylon brush weather stripping.
    f. Meeting stiles to include integral pocket to accept pile brush weather seal.
3. Corners.
    a. Mitered.
    b. Secured with 3/8” diameter full-width steel tie rod through extruded splines top and bottom which are integral to standard tubular shaped rails.
    c. 1-1/4” x 1-1/4” x 3/16” 6061 aluminum angle reinforcement at corner to give strong, flat surface for locking hex nut to bear on.
    d. Weld, glue, or other methods of corner joinery are not acceptable.
4. Core.
    a. Poured-in-place polyurethane foam.
    b. Laid in foam cores are not acceptable.
    c. Foam Plastic Insulated Doors: IBC 2603.4.
        1) Foam plastic shall be separated from the interior of a building by an approved thermal barrier.
        2) Approved thermal barrier must meet the acceptance criteria of the Temperature Transmission Fire Test and Integrity Fire Test as stated in NFPA 275.
        3) IBC 2603.4.1.7 foam plastic insulation, having a flame spread index less than 75 and a smoke developed index of not more than 450 shall be permitted as a door core when the face is metal minimum 0.032” aluminum or 0.016” steel.
        4) Standard door assembly can be tested to show it meets these requirements without the use of thermal barrier. If no independent testing conducted all doors with foam plastic core must have a thermal barrier.
5. Face Sheet.
    a. Exterior
        1) 0.120” thick, pebble texture, through color with SpecLite 3® integral surfaseal film FRP sheet.
        2) Optional painted finish consult manufacturer.
        3) Class C standard.
    b. Interior
        1) 0.120” thick, pebble texture, through color with SpecLite 3® integral surfaseal film FRP sheet.
        2) Optional painted finish consult manufacturer.
        3) Class C standard optional Class A available consult manufacturer.
    c. Attachment of face sheet.
        1) Extruded stiles and rails to have integral reglets to accept face sheet on both interior and exterior side of door which secure face sheet into place and permit flush appearance.
        2) Use of glue to bond face sheet to core or extrusions is not acceptable.
6. Cutouts.

a. Manufacture doors with cutouts for required vision lites, louvers, and panels.

7. Hardware.
   a. Pre-machine doors in accordance with templates from specified hardware manufacturers.
   b. Surface mounted closures will be reinforced for but not prepped or installed at factory.
   c. Factory install door hardware.
8. Reinforcements.
   a. Aluminum extrusions made from 6061 or 6063 aluminum alloys.
   b. Sheet and plate to conform to ASTM-B209.
   c. Alloy and temper to be selected by manufacturer for strength, corrosion resistance, and application of required finish, and control of color.
   d. Bars and tubes to meet ASTM-B221.

**2.03 PERFORMANCE**

A. Face Sheet.
   1. Standard Interior and Exterior Class C 0.120" thick, pebble texture, through color with SpecLite 3® integral surfaseal film FRP sheet.
      a. Flexural Strength, ASTM-D790: 21 x $10^3$ psi.
      b. Flexural Modulus, ASTM-D790: 0.7 x $10^6$ psi.
      c. Tensile Strength, ASTM-D638: 13 x $10^3$ psi.
      d. Tensile Modulus, ASTM-D638: 1.2 x $10^6$ psi.
      e. Barcol Hardness, ASTM-D2583: 55.
      f. Izod Impact, ASTM-D256: 14.0 ft-lb/in.
      g. Gardner Impact Strength, ASTM-D5420: 120 in-lb.
      h. Water Absorption, ASTM-D570: 0.20%/24hrs at 77°F.
      i. Surface Burning, ASTM-E84: Flame Spread ≤ 200, Smoke Developed ≤ 450.
      j. Taber Abrasion Resistance, Taber Test: 0.007% Max Wt. Loss, cs-17 wheels, 1000g. Wt., 25 cycles.
      k. Chemical Resistance.
         1) Excellent Rating.
            (a) Acetic Acid, Concentrated.
            (b) Acetic Acid, 5%.
            (c) Bleach Solution.
            (d) Detergent Solution.
            (e) Distilled Water.
            (f) Ethyl Acetate.
            (g) Formaldehyde.
            (h) Heptane.
            (i) Hydrochloric Acid, 10%.
            (j) Hydrogen Peroxide, 3%.
            (k) Isooctane.
            (l) Lactic Acid, 10%.
      l. USDA/FSIS Requirements.
         1) FRP face sheet with SpecLite 3® integral surfaseal is a finished outer surface material that is rigid; durable; non-toxic; non-corrosive; moisture resistant; a light, solid color such as white; easily inspected; smooth or an easily cleaned texture.
         2) FRP face sheet with SpecLite 3® integral surfaseal does not contain any known carcinogen, mutagen, or teratogen classified as hazardous substances; heavy metals or toxic substances; antimicrobials; pesticides or substances with pesticidal characteristics.

2. Optional Interior Face Only Class A 0.120” thick, pebble texture, through color with SpecLite 3® integral surfaseal film FRP sheet.
    a. Flexural Strength, ASTM-D790: 13 x $10^3$ psi.
    b. Flexural Modulus, ASTM-D790: 0.57 x $10^6$ psi.
    c. Tensile Strength, ASTM-D638: 6.8 x $10^3$ psi.
    d. Tensile Modulus, ASTM-D638: 0.90 x $10^6$ psi.
    e. Barcol Hardness, ASTM-D2583: 40.
    f. Izod Impact, ASTM-D256: 12.0 ft-lb/in notched.
    g. Gardner Impact Strength, ASTM-D3029: 45 in-lb.
    h. Water Absorption, ASTM-D570: 0.32%/24hrs at 77°F.
    i. Surface Burning, ASTM-E84: Flame Spread ≤ 25, Smoke Developed ≤ 450.
    j. Taber Abrasion Resistance, Taber Test: 0.02% Max Wt. Loss, cs-17 wheels, 1000g. Wt., 25 cycles.

B. Door Core.
1. Density, ASTM-D1622: ≤ 5.0 pcf.
2. Compressive Properties, ASTM-D1621: Compressive Strength ≥ 60 psi, Compressive Modulus ≥ 1948 psi.
3. Tensile and Tensile Adhesion Properties, ASTM-D1623: Tensile Adhesion, 3” x 3” FRP Facers ≥ 53 psi, Tensile Adhesion, 1” x 1” Foam ≥ 104 psi.
4. Thermal and Humid Aging, ASTM-D2126: Volume Change at 158 °F, 100% humidity, 14 days ≤ 13%.
5. Thermal Conductivity, ASTM-C518, Thermal Resistance ≥ 0.10 m2K/W.

C. Door Panel.
1. Thermal Transmittance, AAMA 1503-98: U-Factor = 0.29 Btu/hr·ft²·°F, CRFp = 55.
2. Indoor Air Quality, ASTM-D5116, ASTM-D6607: GreenGuard, GreenGuard Gold.

D. Door and Thermally Broken Aluminum Frame Assembly.
1. Thermal Transmittance, NFRC 100.
    a. Opaque Swinging Door (< than 50% glass)
        1) U-Factor = 0.31 Btu/hr·ft²·°F.
    b. Commercially Glazed Swinging Entrance Door (> than 50% glass)
        1) U-Factor = 0.64 Btu/hr·ft²·°F.
2. Air Leakage, NFRC 400, ASTM-E283.
    a. Opaque Swinging Door (< than 50% glass)
        1) cfm/sqft @ 1.57 psf.
        2) cfm/sqft @ 6.24 psf.
    b. Commercially Glazed Swinging Entrance Door (> than 50% glass)
        1) cfm/sqft @ 1.57 psf.
        2) cfm/sqft @ 6.24 psf.
3. Sound Transmission, ASTM-E90: STC = 30, OITC = 29.

E. Door and AF-150 Frame Assembly.
1. Thermal Transmittance, NFRC 100.
    a. Opaque Swinging Door (< than 50% glass)
        1) U-Factor = 0.32 Btu/hr·ft²·°F.
    b. Commercially Glazed Swinging Entrance Door (> than 50% glass)
        1) U-Factor = 0.57 Btu/hr·ft²·°F.
2. Air Leakage, NFRC 400, ASTM-E283.
    a. Opaque Swinging Door (< than 50% glass)
        1) cfm/sqft @ 1.57 psf.
        2) cfm/sqft @ 6.24 psf.
    b. Commercially Glazed Swinging Entrance Door (> than 50% glass)
        1) cfm/sqft @ 1.57 psf.

2) cfm/sqft @ 6.24 psf.

F. Door and Hollow Metal Steel Frame.
1. Cycle Slam, NWWDA T.M. 7-90.
a. 5,000,000 cycles.
1) No Operational Damage.
2) No Hinge Separation.

**2.04 MATERIALS**

A. Aluminum Members.
1. Aluminum extrusions made 6061 or 6063 aluminum alloys.
2. Sheet and plate to conform to ASTM-B209.
3. Alloy and temper to be selected by manufacturer for strength, corrosion resistance, and application of required finish, and control of color.

B. Fiberglass.
1. See 2.02.C.5.

C. Fasteners.
1. All exposed fasteners will have a finish to match material being fastened.
2. 410 stainless steel or other non-corrosive metal.
3. Must be compatible with items being fastened.

**2.05 FABRICATION**

A. Factory Assembly.
1. Door and frame components from the same manufacturer.
2. Required size for door and frame units, shall be as indicated on the drawings.
3. Complete cutting, fitting, forming, drilling, and grinding of metal before assembly.
4. All cut edges to be free of burs.
5. Welding of doors or frames is not acceptable.
6. Maintain continuity of line and accurate relation of planes and angles.
7. Secure attachments and support at mechanical joints with hairline fit at contact surfaces.

B. Shop Fabrication
1. All shop fabrication to be completed in accordance with manufactures process work instructions.
2. Quality control to be performed before leaving each department.

**2.06 FINISHES**

A. Door.
1. Aluminum.
a. Mill.
1) AA-M10C22A21-Flash.
b. Anodizing.
1) Class 1 Anodizing, minimum 0.7 mils thick.
(a) Color.
(1) As indicated by architect from manufacturers full range of color options.
2. FRP Face Sheets
a. Through color.
1) Color.
(a) As indicated by architect from the manufacturers full range of color options.

**2.07 ACCESSORIES**

A. Hardware.

1. Pre-machine doors in accordance with templates from specified hardware manufactures and hardware schedule.
2. Factory install hardware.
3. Hardware Schedule.
    a. As specified in Section 08 7100, unless indicated here.
        1) Hinges.
            (a) SL-11HD.
        2) Door Pulls.
            (a) SL-86.
        3) Concealed adjustable bottom brush.
            (a) SL-301.
                (1) Not for use with CVR type hardware.
        4) Concealed adjustable meeting stile astragal.
            (a) Adjustable astragal by Special-Lite.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Examine areas to receive doors.

B. Notify architect of conditions that would adversely affect installation or subsequent use.

C. Do no proceed with installation until unsatisfactory conditions are corrected.

### 3.02 PREPARATION

A. Ensure openings to receive frames are plumb, level, square, and in tolerance.

### 3.03 ERECTION

A. Install doors in accordance with manufacturer's instructions.

B. Install doors plumb, level, square, true to line, and without warp or rack.

C. Anchor frames securely in place.

D. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by architect.

E. Set thresholds in bed of mastic and back seal.

F. Install exterior doors to be weathertight in closed position.

G. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by architect.

H. Remove and replace damaged components that cannot be successfully repaired as determined by architect.

### 3.04 FIELD QUALITY CONTROL

A. Manufacture's Field Services.
    1. Manufacturer's representative shall provide technical assistance and guidance for installation of doors.

### 3.05 ADJUSTING

A. Adjust doors, hinges, and locksets for smooth operation without binding.

### 3.06 CLEANING

A. Clean doors promptly after installation in accordance with manufacturer's instructions.

B. Do not use harsh cleaning materials or methods that would damage finish.

**3.07 PROTECTION**

A. Protect installed doors to ensure that, except for normal weathering, doors will be without damage or deterioration at time of substantial completion.

**END OF SECTION**

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SECTION 08 71 00
DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:
   1. Mechanical and electrified door hardware for:
      a. Swinging doors.
      b. Sliding doors.
      c. Gates.
   2. Electronic access control system components
   3. Field verification, preparation and modification of existing doors and frames to receive new door hardware.

B. Section excludes:
   1. Windows
   2. Cabinets (casework), including locks in cabinets
   3. Signage
   4. Toilet accessories
   5. Overhead doors

C. Related Sections:
   1. Division 01 Section “Alternates” for alternates affecting this section.
   2. Division 06 Section “Rough Carpentry”
   3. Division 06 Section "Finish Carpentry”
   4. Division 07 Section “Joint Sealants” for sealant requirements applicable to threshold installation specified in this section.
   5. Division 08 Sections:
      a. “Metal Doors and Frames”
      b. “Flush Wood Doors”
      c. "Aluminum-Framed Entrances and Storefronts"
   6. Division 09 sections for touchup, finishing or refinishing of existing openings modified by this section.
   7. Division 26 “Electrical” sections for connections to electrical power system and for low-voltage wiring.
   8. Division 28 “Electronic Safety and Security” sections for coordination with other components of electronic access control system and fire alarm system.

1.02 REFERENCES

A. UL - Underwriters Laboratories
   1. UL 10B - Fire Test of Door Assemblies
   2. UL 10C - Positive Pressure Test of Fire Door Assemblies
   3. UL 1784 - Air Leakage Tests of Door Assemblies
   4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute
   1. Sequence and Format for the Hardware Schedule
   2. Recommended Locations for Builders Hardware

3. Keying Systems and Nomenclature
4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association
1. NFPA 70 – National Electric Code
2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 – Life Safety Code
4. NFPA 105 – Smoke and Draft Control Door Assemblies
5. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute
1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS

A. General:
1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
a. Comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, “EXAMINATION” article, herein.
b. Review drawings and Sections from related trades to verify compatibility with specified hardware.
c. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:
1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
a. Wiring Diagrams: For power, signal, and control wiring and including:
1) Details of interface of electrified door hardware and building safety and security systems.
2) Schematic diagram of systems that interface with electrified door hardware.
3) Point-to-point wiring.
4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.
a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.
4. Door Hardware Schedule:
a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of

other work to facilitate fabrication of other work critical in Project construction schedule.

b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.

c. Indicate complete designations of each item required for each opening, include:
   1) Door Index: door number, heading number, and Architect's hardware set number.
   2) Quantity, type, style, function, size, and finish of each hardware item.
   3) Name and manufacturer of each item.
   4) Fastenings and other pertinent information.
   5) Location of each hardware set cross-referenced to indications on Drawings.
   6) Explanation of all abbreviations, symbols, and codes contained in schedule.
   7) Mounting locations for hardware.
   8) Door and frame sizes and materials.
   9) Degree of door swing and handing.
   10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.

5. Key Schedule:
   a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
   b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
   c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
   d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
   e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
   f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.
6. Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory or shop prepared for door hardware installation.

C. Informational Submittals:
   1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
   2. Provide Product Data:
      a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
      b. Include warranties for specified door hardware.

D. Closeout Submittals:
   1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
      a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
      b. Catalog pages for each product.
      c. Factory order acknowledgement numbers (for warranty and service)
      d. Name, address, and phone number of local representative for each manufacturer.

e. Parts list for each product.
f. Final approved hardware schedule edited to reflect conditions as installed.
g. Final keying schedule
h. Copies of floor plans with keying nomenclature
i. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
j. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

E. Inspection and Testing:
1. Submit a written report of the results of functional testing and inspection for fire door assemblies, in compliance with NFPA 80.
a. Written report to be provided to the Owner and be made available to the Authority Having Jurisdiction (AHJ).
b. Report to include the door number for each fire door assembly, door location, door and frame material, fire rating, and summary of deficiencies.
2. Submit a written report of the results of functional testing and inspection for required egress door assemblies, in compliance with NFPA 101.
a. Written report to be provided to the Owner and be made available to the Authority Having Jurisdiction (AHJ).
b. Report to include the door number for each required egress door assembly, door location, door and frame material, fire rating, and summary of deficiencies.

## 1.04 QUALITY ASSURANCE

A. Qualifications and Responsibilities:
1. Supplier: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that provides certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
a. Warehousing Facilities: In Project's vicinity.
b. Scheduling Responsibility: Preparation of door hardware and keying schedules.
c. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies like those indicated for this Project.
d. Coordination Responsibility: Assist in coordinating installation of electronic security hardware with Architect and electrical engineers and provide installation and technical data to Architect and other related subcontractors.
1) Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.
2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
a. For door hardware: DHI certified AHC or DHC.
b. Can provide installation and technical data to Architect and other related subcontractors.
c. Can inspect and verify components are in working order upon completion of installation.

d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.

4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:
   1. Fire-Rated Door Openings:
      a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
      b. Provide only items of door hardware that are listed products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
   2. Smoke and Draft Control Door Assemblies:
      a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
      b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
   3. Electrified Door Hardware
      a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
   4. Accessibility Requirements:
      a. Comply with governing accessibility regulations cited in “REFERENCES” article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.

C. Pre-Installation Meetings
   1. Keying Conference
      a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
         1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
         2) Preliminary key system schematic diagram.
         3) Requirements for key control system.
         4) Requirements for access control.
         5) Address for delivery of keys.
   2. Pre-installation Conference
      a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
      b. Inspect and discuss preparatory work performed by other trades.
      c. Inspect and discuss electrical roughing-in for electrified door hardware.
      d. Review sequence of operation for each type of electrified door hardware.
      e. Review required testing, inspecting, and certifying procedures.
      f. Review questions or concerns related to proper installation and adjustment of door hardware.
   3. Electrified Hardware Coordination Conference:
      a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.

B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.

C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.

D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.

B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

E. Existing Openings: Where existing doors, frames and/or hardware are to remain, field verify existing functions, conditions and preparations and coordinate to suit opening conditions and to provide proper door operation.

1.07 WARRANTY

A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.
   1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
   2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.
      a. Mechanical Warranty
         1) Locks

a) Schlage ND Series: 10 year
2) Exit Devices
a) Von Duprin: 3 year
3) Closers
a) LCN 4050 Series: 25 year
4) Accessories
a) Ives Continuous Hinges: Lifetime
b. Electrical Warranty
1) Exit Devices
a) Von Duprin: 1 year

1.08 MAINTENANCE

A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Approval of manufacturers and/or products other than those listed as “Scheduled Manufacturer” or “Acceptable Manufacturers” in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.

B. Approval of products from manufacturers indicated in “Acceptable Manufacturers” is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer’s product.

C. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

A. Fasteners
1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are required to fasten hardware securely. Review door specification and advise Architect if thru bolts are required.
4. Install hardware with fasteners provided by hardware manufacturer.

B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
   1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

## 2.03 HINGES

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Ives 5BB series
   2. Acceptable Manufacturers and Products:
      a. Hager BB1191/1279 series
      b. McKinney TA/T4A series

B. Requirements:
   1. Provide hinges conforming to ANSI/BHMA A156.1.
   2. Provide five knuckle, ball bearing hinges.
   3. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
      a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
      b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
   4. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
      a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
      b. Interior: Heavy weight, steel, 5 inches (127 mm) high
   5. 2 inches or thicker doors:
      a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
      b. Interior: Heavy weight, steel, 5 inches (127 mm) high
   6. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
   7. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
   8. Where new hinges are specified for existing doors or existing frames, provide new hinges of identical size to hinge preparation present in existing door or existing frame.
   9. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
      a. Steel Hinges: Steel pins
      b. Non-Ferrous Hinges: Stainless steel pins
      c. Out-Swinging Exterior Doors: Non-removable pins
      d. Out-Swinging Interior Lockable Doors: Non-removable pins
      e. Interior Non-lockable Doors: Non-rising pins
   10. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.

## 2.04 CONTINUOUS HINGES

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Stanley
      b. Roton

B. Requirements:

1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
7. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

## 2.05 FLUSH BOLTS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Burns
      b. Rockwood

B. Requirements:
   1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

## 2.06 CYLINDRICAL LOCKS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Schlage ND series
   2. Acceptable Manufacturers and Products:
      a. Match Existing

B. Requirements:
   1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
   2. Cylinders: Refer to “KEYING” article, herein.
   3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.
   4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
   5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
   6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
   7. Provide electrified options as scheduled in the hardware sets.

8. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
    a. Lever Design: RHO.

## 2.07 EXIT DEVICES

A. Manufacturers and Products:
    1. Scheduled Manufacturer and Product:
        a. Von Duprin 99/33A series
    2. Acceptable Manufacturers and Products:
        a. Detex Advantex series
        b. Precision APEX 2000 series

B. Requirements:
    1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
    2. Cylinders: Refer to “KEYING” article, herein.
    3. Provide grooved touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
    4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
    5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
    6. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
    7. Provide flush end caps for exit devices.
    8. Provide exit devices with manufacturer’s approved strikes.
    9. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
    10. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
    11. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
    12. Provide dogging indicators (CDSI/HDSI) for visible indication of dogging status.
    13. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
    14. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
    15. Provide electrified options as scheduled.
    16. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
    17. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

## 2.08 POWER SUPPLIES

A. Manufacturers and Products:
    1. Scheduled Manufacturer and Product:
        a. Schlage/Von Duprin PS900 Series
    2. Acceptable Manufacturers and Products:
        a. Precision ELR series
        b. Securitron BPS series

B. Requirements:
   1. Provide power supplies approved by manufacturer of supplied electrified hardware.
   2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
   3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
   4. Provide power supplies with the following features:
      a. 12/24 VDC Output, field selectable.
      b. Class 2 Rated power limited output.
      c. Universal 120-240 VAC input.
      d. Low voltage DC, regulated and filtered.
      e. Polarized connector for distribution boards.
      f. Fused primary input.
      g. AC input and DC output monitoring circuit w/LED indicators.
      h. Cover mounted AC Input indication.
      i. Tested and certified to meet UL294.
      j. NEMA 1 enclosure.
      k. Hinged cover w/lock down screws.
      l. High voltage protective cover.

## 2.09 CYLINDERS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Schlage Primus
   2. Acceptable Manufacturers and Products:
      a. Match Existing

B. Requirements:
   1. Provide cylinders/cores, compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.
   2. Provide cylinders in the below-listed configuration(s), distributed throughout the Project as indicated.
      a. High Security: dual-locking cylinder with permanent core requiring restricted, patented keyway. Dual-locking mechanism with interlocking finger pin(s) to check for patented features on keys.
   3. Patent Protection: Cylinders/cores requiring use of restricted, patented keys, patent protected.
   4. Nickel silver bottom pins.

C. Construction Keying:
   1. Replaceable Construction Cores.
      a. Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
         1) 3 construction control keys
         2) 12 construction change (day) keys.
      b. Owner or Owner's Representative will replace temporary construction cores with permanent cores.

## 2.10 KEYING

A. Provide cylinders/cores keyed into Owner's existing factory registered keying system. Comply with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

B. Requirements:
   1. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
      a. Master Keying system as directed by the Owner.
   2. Forward bitting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
   3. Provide keys with the following features:
      a. Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
      b. Patent Protection: Keys and blanks protected by one or more utility patent(s).
   4. Identification:
      a. Mark permanent cylinders/cores and keys with applicable blind code for identification. Do not provide blind code marks with actual key cuts.
      b. Identification stamping provisions must be approved by the Architect and Owner.
      c. Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
      d. Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
      e. Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
   5. Quantity: Furnish in the following quantities.
      a. Change (Day) Keys: 3 per cylinder/core.
      b. Permanent Control Keys: 3.
      c. Master Keys: 6.

## 2.11 KEY CONTROL SYSTEM

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Telkee
   2. Acceptable Manufacturers:
      a. No Substitute
      b. HPC
      c. Lund

B. Requirements:
   1. Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of number of locks required for Project.
      a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.
      b. Provide hinged-panel type cabinet for wall mounting.

## 2.12 DOOR CLOSERS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. LCN 4050A series
   2. Acceptable Manufacturers and Products:
      a. Falcon SC70A series
      b. Norton 7500 series

B. Requirements:
   1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
   2. Provide door closers with fully hydraulic, full rack and pinion action with cast aluminum cylinder.
   3. Closer Body: 1-1/2-inch (38 mm) diameter with 11/16-inch (17 mm) diameter heat-treated pinion journal and full complement bearings.
   4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and all weather requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
   5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
   6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and back check.
   7. Pressure Relief Valve (PRV) Technology: Not permitted.
   8. Provide stick on templates, special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

## 2.13 DOOR TRIM

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives.
   2. Acceptable Manufacturers:
      a. Burns
      b. Rockwood

B. Requirements:
   1. Provide push plates, push bars, pull plates, pulls, and hands-free reversible door pulls with diameter and length as scheduled.

## 2.14 PROTECTION PLATES

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Trimco
      b. Rockwood

B. Requirements:

1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
3. At fire rated doors, provide protection plates over 16 inches high with UL label.

## 2.15 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:
   1. Scheduled Manufacturers:
      a. Glynn-Johnson
   2. Acceptable Manufacturers:
      a. Rixson
      b. Sargent

B. Requirements:
   1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.
   2. Provide friction type at doors without closer and positive type at doors with closer.

## 2.16 DOOR STOPS AND HOLDERS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Burns
      b. Rockwood

B. Provide door stops at each door leaf:
   1. Provide wall stops wherever possible. Provide concave type where lockset has a push button of thumbturn.
   2. Where a wall stop cannot be used, provide universal floor stops.
   3. Where wall or floor stop cannot be used, provide overhead stop.
   4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

## 2.17 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Zero International
   2. Acceptable Manufacturers:
      a. National Guard
      b. Reese

B. Requirements:
   1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.

2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

## 2.18 SILENCERS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. Rockwood
      b. Trimco

B. Requirements:
   1. Provide "push-in" type silencers for hollow metal or wood frames.
   2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
   3. Omit where gasketing is specified.

## 2.19 FINISHES

A. Finish: BHMA 626/652 (US26D); except:
   1. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
   2. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
   3. Protection Plates: BHMA 630 (US32D)
   4. Overhead Stops and Holders: BHMA 630 (US32D)
   5. Door Closers: Powder Coat to Match
   6. Wall Stops: BHMA 630 (US32D)
   7. Weatherstripping: Clear Anodized Aluminum
   8. Thresholds: Mill Finish Aluminum

# PART 3 - EXECUTION

## 3.01 EXAMINATION

A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.

B. Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.

C. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

D. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

## 3.02 PREPARATION

A. Where on-site modification of doors and frames is required:
   1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.
   2. Field modify and prepare existing doors and frames for new hardware being installed.
   3. When modifications are exposed to view, use concealed fasteners, when possible.
   4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:
      a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
      b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
      c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

## 3.03 INSTALLATION

A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
   1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
   2. Custom Steel Doors and Frames: HMMA 831.
   3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
   4. Installation Guide for Doors and Hardware: DHI TDH-007-20

B. Install each hardware item in compliance with manufacturer’s instructions and recommendations, using only fasteners provided by manufacturer.

C. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.

D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

F. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

G. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.

H. Lock Cylinders:
   1. Install construction cores to secure building and areas during construction period.

2. Replace construction cores with permanent cores as indicated in keying section.
3. Furnish permanent cores to Owner for installation.

I. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:
1. Conduit, junction boxes and wire pulls.
2. Connections to and from power supplies to electrified hardware.
3. Connections to fire/smoke alarm system and smoke evacuation system.
4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
5. Connections to panel interface modules, controllers, and gateways.
6. Testing and labeling wires with Architect's opening number.

J. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

K. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.

L. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

M. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.

N. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."

O. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

P. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

Q. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

R. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

## 3.04 FIELD QUALITY CONTROL

A. Inspection and Testing:
1. Provide functional testing and inspection of fire door assemblies by a qualified person in accordance with NFPA 80.
a. Schedule fire door assembly inspection within 90 days of Substantial Completion of the Project.
b. Submit a signed, written final report as specified in Paragraph 1.03.E.1.
c. Correct all deficiencies and schedule a reinspection of fire door assemblies noted as deficient on the inspection report.
d. Inspector to reinspect fire door assemblies after repairs are made.

2. Provide inspection of required egress door assemblies by a qualified person in accordance with NFPA 101.
    a. Schedule egress door assembly inspection within 90 days of Substantial Completion of the Project for the required openings.
    b. Submit a signed, written final report as specified in Paragraph 1.03.E.2.
    c. Correct all deficiencies and schedule a reinspection of egress door assemblies noted as deficient on the inspection report.
    d. Inspector to reinspect required egress door assemblies after repairs are made.

## 3.05 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
    1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

## 3.06 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items per manufacturer’s instructions to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

## 3.07 DOOR HARDWARE SCHEDULE

A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier’s responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.

C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.

D. Hardware Sets:

Hardware Group No. 01

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | EA | CONT. HINGE | 112HD EPT | | 628 | IVE |
| 1 | EA | POWER TRANSFER | EPT10 | ↯ | 689 | VON |
| 2 | EA | MANUAL FLUSH BOLT | FB358 | | 626 | IVE |
| 1 | EA | DUST PROOF STRIKE | DP2 | | 626 | IVE |
| 1 | EA | ELEC PANIC HARDWARE | RX-LC-QEL-33A-NL-OP-388 24 VDC | ↯ | 626 | VON |
| 1 | EA | RIM CYLINDER | 20-057 ICX | | 626 | SCH |
| 1 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 1 | EA | 90 DEG OFFSET PULL | 8190EZHD 12" STD | | 630-316 | IVE |
| 1 | EA | OH STOP | 100S | | 630 | GLY |
| 1 | EA | SURFACE CLOSER | 4050A EDA | | 689 | LCN |
| 1 | EA | PA MOUNTING PLATE | 4050-18PA | | 689 | LCN |
| 1 | EA | BLADE STOP SPACER | 4050-61 | | 689 | LCN |
| 2 | EA | DOOR SWEEP | 39A | | A | ZER |
| 1 | EA | THRESHOLD | 655A | | A | ZER |
| 1 | EA | POWER SUPPLY | PS902 BBK 900-2RS 120/240 VAC | ↯ | LGR | SCE |
| 1 | | | CARD READER - WORK OF DIVISION 28 | | | |
| 1 | EA | NOTE | PROVIDE POINT TO POINT WIRING DIAGRAMS | | | |
| 1 | EA | NOTE | PROVIDE RISER WIRING DIAGRAMS | | | |

DOOR NORMALLY CLOSED AND LOCKED.
PRESENTATION OF VALID CREDENTIAL TO RETRACT LATCHBOLT, SHUNT ALARM AND ALLOW ENTRY.
FREE EGRESS AT ALL TIMES BY DEPRESSING EXIT DEVICE.
DEPRESSING EXIT DEVICE WILL SHUNT ALARM AND ALLOW EGRESS.

Hardware Group No. 02

| | | | | | |
|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 NRP | 652 | IVE |
| 1 | EA | ENTRANCE/OFFICE LOCK | ND50TD RHO | 626 | SCH |
| 1 | EA | PRIMUS CORE | 20-740 | 626 | SCH |
| 1 | EA | OH STOP | 100S | 630 | GLY |
| 1 | EA | GASKETING | 488SBK PSA | BK | ZER |

Hardware Group No. 03

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 | | 652 | IVE |
| 1 | EA | ELEC CLASSROOM LOCK | AD-400-CY-70-MTK-RHO-L 4AA BATTERY | ✓ | 626 | SCE |
| 1 | EA | SFIC MORTISE CYL. | 26-091 ICX | | 626 | SCH |
| 1 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4050A RW/PA | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS | | 630 | IVE |
| 1 | EA | WALL STOP | WS406/407CCV | | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

Hardware Group No. 04

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 NRP | | 652 | IVE |
| 1 | EA | PRIVACY LOCK | L9040 06A 09-544 L283-722 | | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4050A RW/PA | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS | | 630 | IVE |
| 1 | EA | WALL STOP | WS406/407CCV | | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

Hardware Group No. 05

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 | | 652 | IVE |
| 1 | EA | ENTRANCE/OFFICE LOCK | ND50TD RHO | | 626 | SCH |
| 1 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 1 | EA | WALL STOP | WS406/407CCV | | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

Hardware Group No. 06

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 NRP | | 652 | IVE |
| 1 | EA | CLASSROOM LOCK | ND70TD RHO | | 626 | SCH |
| 1 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4050A EDA | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS | | 630 | IVE |
| 1 | EA | WALL STOP | WS406/407CCV | | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

Hardware Group No. 07

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 | | 652 | IVE |
| 1 | EA | CLASSROOM LOCK | ND70TD RHO | | 626 | SCH |
| 1 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4050A RW/PA | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS | | 630 | IVE |
| 1 | EA | WALL STOP | WS406/407CCV | | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

Hardware Group No. 08

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | EA | CONT. HINGE | 224XY | | 628 | IVE |
| 1 | EA | FIRE EXIT HARDWARE | 99-EO-F | | 626 | VON |
| 1 | EA | ELEC EXIT DEVICE TRIM | AD-400-993R-70-MTK-RHO-L 4AA BATTERY | ↯ | 626 | SCE |
| 1 | EA | SFIC MORTISE CYL. | 26-091 ICX | | 626 | SCH |
| 2 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 2 | EA | SURFACE CLOSER | 4050A EDA | | 689 | LCN |
| 2 | EA | KICK PLATE | 8400 10" X 1" LDW B-CS | | 630 | IVE |
| 2 | EA | WALL STOP | WS406/407CCV | | 630 | IVE |
| 2 | EA | FIRE/LIFE WALL MAG | SEM7850 AS REQ (12/24/120V AC/DC TRI-VOLT) | ↯ | 689 | LCN |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

AD SERIES TRIM TO BE PROVIDED BY DIVISION 28. DOOR AND FRAME TO BE PREPPED AS REQUIRED.

Hardware Group No. 09

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | EA | CONT. HINGE | 224XY | | 628 | IVE |
| 2 | EA | FIRE EXIT HARDWARE | 9927-L-F-2SI-LBR-06-499F | | 626 | VON |
| 2 | EA | RIM CYLINDER | 20-057 ICX | | 626 | SCH |
| 2 | EA | SFIC MORTISE CYL. | 26-091 ICX | | 626 | SCH |
| 4 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 2 | EA | SURFACE CLOSER | 4050A EDA | | 689 | LCN |
| 2 | EA | KICK PLATE | 8400 10" X 1" LDW B-CS | | 630 | IVE |
| 2 | EA | WALL STOP | WS406/407CCV | | 630 | IVE |
| 2 | EA | FIRE/LIFE WALL MAG | SEM7850 AS REQ (12/24/120V AC/DC TRI-VOLT) | ↯ | 689 | LCN |
| 2 | EA | GASKETING | 488SBK PSA | | BK | ZER |
| 1 | EA | ASTRAGAL | 8193AA | | AA | ZER |
| 2 | EA | DOOR BOTTOM | 350AA | | AA | ZER |

Hardware Group No. 10

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | EA | CONT. HINGE | 224XY | | 628 | IVE |
| 1 | EA | DUMMY TRIM | AD-993DT-RHO-L 12/24 VDC | | 626 | SCE |
| 2 | EA | FIRE EXIT HARDWARE | 9927-EO-F-LBR-499F | | 626 | VON |
| 1 | EA | ELEC EXIT DEVICE TRIM | AD-400-993S-70-MTK-RHO-L 4AA BATTERY | ↯ | 626 | SCE |
| 2 | EA | SFIC MORTISE CYL. | 26-091 ICX | | 626 | SCH |
| 2 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 2 | EA | SURFACE CLOSER | 4050A EDA | | 689 | LCN |
| 2 | EA | SURFACE CLOSER | 4050A SCUSH | | 689 | LCN |
| 2 | EA | KICK PLATE | 8400 10" X 1" LDW B-CS | | 630 | IVE |
| 2 | EA | FIRE/LIFE WALL MAG | SEM7850 AS REQ (12/24/120V AC/DC TRI-VOLT) | ↯ | 689 | LCN |
| 2 | EA | GASKETING | 488SBK PSA | | BK | ZER |
| 1 | EA | ASTRAGAL | 8193AA | | AA | ZER |
| 2 | EA | DOOR BOTTOM | 350AA | | AA | ZER |

Hardware Group No. 11

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 NRP | | 652 | IVE |
| 1 | EA | DBL CYL STORE LOCK | ND66TD RHO | | 626 | SCH |
| 2 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4050A SCUSH | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS | | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

Hardware Group No. 12

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 | | 652 | IVE |
| 1 | EA | CLASSROOM SECURITY | ND75TD RHO XN12-035 | | 626 | SCH |
| 2 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4050A RW/PA | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS | | 630 | IVE |
| 2 | EA | WALL STOP | WS406/407CCV | | 630 | IVE |
| 2 | EA | GASKETING | 488SBK PSA | | BK | ZER |
| 1 | EA | DOOR BOTTOM | 350AA | | AA | ZER |

Hardware Group No. 13

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | | | RE-USE EXISTING DOORS, FRAMES, & HARDWARE | | | |

SALVAGED DOOR TO BE RE-USED

Hardware Group No. 14

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | | | RE-USE EXISTING DOORS, FRAMES, & HARDWARE | | | |

EXISTING DOOR AND FRAME. FRAME TO BE PAINTED.

Hardware Group No. 15

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 | | 652 | IVE |
| 1 | EA | ELEC CLASSROOM LOCK | AD-400-CY-70-MTK-RHO-L 4AA BATTERY | ↗ | 626 | SCE |
| 1 | EA | SFIC MORTISE CYL. | 26-091 ICX | | 626 | SCH |
| 1 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 1 | EA | OH STOP | 100S | | 630 | GLY |
| 1 | EA | SURFACE CLOSER | 4050A RW/PA ST-5003 | | 689 | LCN |
| 1 | EA | MOUNTING PLATE | 4050-18 | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS | | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

Hardware Group No. 16

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | EA | HINGE | 5BB1HW 4.5 X 4.5 | | 652 | IVE |
| 1 | EA | ENTRANCE/OFFICE LOCK | ND50TD RHO | | 626 | SCH |
| 1 | EA | PRIMUS CORE | 20-740 | | 626 | SCH |
| 1 | EA | SURFACE CLOSER | 4050A RW/PA | | 689 | LCN |
| 1 | EA | KICK PLATE | 8400 10" X 1 1/2" LDW B-CS | | 630 | IVE |
| 1 | EA | WALL STOP | WS406/407CCV | | 630 | IVE |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |
| 1 | EA | GASKETING | 488SBK PSA | | BK | ZER |

End of Section

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**SECTION 08 8000**
**GLAZING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Glazing units, in rated and non-rated wood doors.

B. Glazing compounds.

### 1.02 RELATED REQUIREMENTS

A. Section 06 2000 - Finish Carpentry: _____ components with requirement for plastic.

B. Section 07 9200 - Joint Sealants: Sealants for other than glazing purposes.

C. Section 08 4313 - Aluminum-Framed Storefronts: Glazing provided as part of storefront assembly.

### 1.03 REFERENCE STANDARDS

A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials Current Edition.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data on Glazing Unit Glazing Types: Provide structural, physical and environmental characteristics, size limitations, special handling and installation requirements.

C. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.

D. Manufacturer's qualification statement.

E. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.

### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

### 1.06 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Glass Fabricators:
   1. GGI - General Glass International: www.generalglass.com/#sle.
   2. Trulite Glass & Aluminum Solutions, LLC: www.trulite.com/#sle.
   3. Substitutions: See Section 01 6000 - Product Requirements.

B. Float Glass Manufacturers:
   1. Cardinal Glass Industries: www.cardinalcorp.com/#sle.
   2. Guardian Glass, LLC: www.guardianglass.com/#sle.

### 2.02 GLAZING UNITS

A. Type G-2 - Monolithic Interior Vision Glazing:
   1. Applications: For use in rated and non-rated wood door vision lites.
   2. Glass Type: Fully tempered float glass.

3. Tint: Clear.
4. Thickness: 1/4 inch, nominal.

**2.03 ACCESSORIES**

A. Glazing Tape, Back Bedding Mastic Type: Preformed, butyl-based, 100 percent solids compound with integral resilient spacer rod applicable to application indicated; 5 to 30 cured Shore A durometer hardness; coiled on release paper; black color.

**PART 3 EXECUTION**

**END OF SECTION**

**SECTION 09 0561**
**COMMON WORK RESULTS FOR FLOORING PREPARATION**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. This section applies to floors identified in Contract Documents that are receiving the following types of floor coverings:
   1. Resilient tile and sheet.
   2. Carpet tile.
   3. Thin-set ceramic tile and stone tile.
   4. Epoxy Terrazzo.

B. Removal of existing floor coverings.

C. Preparation of new and existing concrete floor slabs for installation of floor coverings.

D. Testing of concrete floor slabs for moisture and alkalinity (pH).

E. Remediation of concrete floor slabs due to unsatisfactory moisture or alkalinity (pH) conditions.
   1. Contractor shall perform all specified remediation of concrete floor slabs. If such remediation is indicated by testing agency's report and is due to a condition not under Contractor's control or could not have been predicted by examination prior to entering into the contract, a contract modification will be issued.

F. Patching compound.

G. Remedial floor coatings.

### 1.02 RELATED REQUIREMENTS

A. Section 01 4000 - Quality Requirements: Additional requirements relating to testing agencies and testing.

B. Section 02 8213- Asbestos Abatement.

C. Section 03 3000 - Cast-in-Place Concrete: Moisture emission reducing curing and sealing compound for slabs to receive adhered flooring, to prevent moisture content-related flooring failures; to remain in place, not to be removed.

### 1.03 REFERENCE STANDARDS

A. ASTM C109/C109M - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50 mm] Cube Specimens) 2021.

B. ASTM C472 - Standard Test Methods for Physical Testing of Gypsum, Gypsum Plasters, and Gypsum Concrete 2020.

C. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring 2022.

D. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride 2023.

E. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes 2019a.

F. RFCI (RWP) - Recommended Work Practices for Removal of Resilient Floor Coverings 2018.

### 1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate scheduling of cleaning and testing, so that preliminary cleaning has been completed for at least 24 hours prior to testing.

### 1.05 SUBMITTALS

A. Visual Observation Report: For existing floor coverings to be removed.

B. Floor Covering and Adhesive Manufacturers' Product Literature: For each specific combination of substrate, floor covering, and adhesive to be used; showing:
   1. Moisture and alkalinity (pH) limits and test methods.
   2. Manufacturer's required bond/compatibility test procedure.

C. Remedial Materials Product Data: Manufacturer's published data on each product to be used for remediation.
   1. Manufacturer's qualification statement.
   2. Certificate: Manufacturer's certification of compatibility with types of flooring applied over remedial product.
   3. Test reports indicating compliance with specified performance requirements, performed by nationally recognized independent testing agency.

D. Testing Agency's Report:
   1. Description of areas tested; include floor plans and photographs if helpful.
   2. Summary of conditions encountered.
   3. Moisture and alkalinity (pH) test reports.
   4. Copies of specified test methods.
   5. Recommendations for remediation of unsatisfactory surfaces.
   6. Submit report not more than two business days after conclusion of testing.

E. Adhesive Bond and Compatibility Test Report.

F. Floor Moisture Testing Technician Certificate: International Concrete Repair Institute (ICRI) Concrete Slab Moisture Testing Technician- Grade I certificate.

G. Copy of RFCI (RWP).

**1.06 QUALITY ASSURANCE**

A. Contractor may perform adhesive and bond test with Contractor's own personnel or hire a testing agency.

B. Testing Agency Qualifications: Independent testing agency experienced in the types of testing specified.
   1. Submit evidence of experience consisting of at least 3 test reports of the type required, with project Owner's project contact information.

C. Contractor's Responsibility Relating to Independent Agency Testing:
   1. Provide access for and cooperate with testing agency.
   2. Confirm date of start of testing at least 10 days prior to actual start.
   3. Allow at least 4 business days on site for testing agency activities.
   4. Achieve and maintain specified ambient conditions.
   5. Notify Architect when specified ambient conditions have been achieved and when testing will start.

D. Floor Moisture Testing Technician Qualifications: International Concrete Repair Institute (ICRI) Concrete Slab Moisture Testing Technician Certification- Grade I.

E. Remedial Coating Installer Qualifications: Company specializing in performing work of the type specified in this section, trained by or employed by coating manufacturer, and able to provide at least 3 project references showing at least 3 years' experience installing moisture emission coatings.

**1.07 DELIVERY, STORAGE, AND HANDLING**

A. Deliver, store, handle, and protect products in accordance with manufacturer’s instructions and recommendations.

B. Deliver materials in manufacturer’s packaging; include installation instructions.

C. Keep materials from freezing.

**1.08 FIELD CONDITIONS**

A. Maintain ambient temperature in spaces where concrete testing is being performed, and for at least 48 hours prior to testing, at not less than 65 degrees F or more than 85 degrees F.

B. Maintain relative humidity in spaces where concrete testing is being performed, and for at least 48 hours prior to testing, at not less than 40 percent and not more than 60 percent.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

A. Patching Compound: Floor covering manufacturer's recommended product, suitable for conditions, and compatible with adhesive and floor covering. In the absence of any recommendation from flooring manufacturer, provide a product with the following characteristics:
   1. Cementitious moisture-, mildew-, and alkali-resistant compound, compatible with floor, floor covering, and floor covering adhesive, and capable of being feathered to nothing at edges.
   2. Compressive Strength: 3000 psi, minimum, after 28 days, when tested in accordance with ASTM C109/C109M or ASTM C472, whichever is appropriate.
   3. Products:
      a. ARDEX Engineered Cements; ARDEX Feather Finish: www.ardexamericas.com/#sle.
      b. H.B. Fuller Construction Products, Inc; TEC Feather Edge Skim Coat: www.tecspecialty.com/#sle.
      c. Substitutions: See Section 01 6000 - Product Requirements.

B. Alternate Flooring Adhesive: Floor covering manufacturer's recommended product, suitable for the moisture and pH conditions present; low-VOC. In the absence of any recommendation from flooring manufacturer, provide a product recommended by adhesive manufacturer as suitable for substrate and floor covering and for conditions present.

C. Remedial Floor Coating: Single- or multi-layer coating or coating/overlay combination intended by its manufacturer to resist water vapor transmission to degree sufficient to meet flooring manufacturer's emission limits, resistant to the level of alkalinity (pH) found, and suitable for adhesion of flooring without further treatment.
   1. Thickness: As required for application and in accordance with manufacturer's installation instructions.
   2. Products:
      a. ARDEX Engineered Cements; ARDEX MC RAPID: www.ardexamericas.com/#sle.
      b. H.B. Fuller Construction Products, Inc; TEC LiquiDam with TEC Level Set 200 SLU: www.tecspecialty.com/#sle.
      c. LATICRETE International, Inc; LATICRETE NXT Vapor Reduction Coating with LATICRETE NXT Level Plus: www.laticrete.com/#sle.
      d. Substitutions: See Section 01 6000 - Product Requirements.

**PART 3 EXECUTION**

**3.01 CONCRETE SLAB PREPARATION**

A. Perform following operations in the order indicated:
   1. Existing concrete slabs (on-grade and elevated) with existing floor coverings:
      a. Visual observation of existing floor covering, for adhesion, water damage, alkaline deposits, and other defects.
      b. Removal of existing floor covering.
   2. Existing concrete slabs with coatings or penetrating sealers/hardeners/dustproofers:

3. Preliminary cleaning.
4. Moisture vapor emission tests; 3 tests in the first 1000 square feet and one test in each additional 1000 square feet, unless otherwise indicated or required by flooring manufacturer.
5. Internal relative humidity tests; in same locations as moisture vapor emission tests, unless otherwise indicated.
6. Alkalinity (pH) tests; in same locations as moisture vapor emission tests, unless otherwise indicated.
7. Specified remediation, if required.
8. Patching, smoothing, and leveling, as required.
9. Other preparation specified.
10. Adhesive bond and compatibility test.
11. Protection.

B. Remediations:
1. Active Water Leaks or Continuing Moisture Migration to Surface of Slab: Correct this condition before doing any other remediation; re-test after correction.
2. Excessive Moisture Emission or Relative Humidity: If an adhesive that is resistant to the level of moisture present is available and acceptable to flooring manufacturer, use that adhesive for installation of the flooring; if not, apply remedial floor coating or remedial sheet membrane over entire suspect floor area.
3. Excessive Alkalinity (pH): If remedial floor coating is necessary to address excessive moisture, no additional remediation is required; if not, if an adhesive that is resistant to the level present is available and acceptable to the flooring manufacturer, use that adhesive for installation of the flooring; otherwise, apply a skim coat of specified patching compound over entire suspect floor area.

## 3.02 REMOVAL OF EXISTING FLOOR COVERINGS

A. Comply with local, State, and federal regulations and recommendations of RFCI (RWP), as applicable to floor covering being removed.

B. Dispose of removed materials in accordance with local, State, and federal regulations and as specified.

## 3.03 PRELIMINARY CLEANING

A. Clean floors of dust, solvents, paint, wax, oil, grease, asphalt, residual adhesive, adhesive removers, film-forming curing compounds, sealing compounds, alkaline salts, excessive laitance, mold, mildew, and other materials that might prevent adhesive bond.

B. Do not use solvents or other chemicals for cleaning.

## 3.04 MOISTURE VAPOR EMISSION TESTING

A. Where the floor covering manufacturer's requirements conflict with either the referenced test method or this specification, comply with the manufacturer's requirements.

B. Where this specification conflicts with the referenced test method, comply with the requirements of this section.

C. Test in accordance with ASTM F1869 and as follows.

D. Plastic sheet test and mat bond test may not be substituted for the specified ASTM test method, as those methods do not quantify the moisture content sufficiently.

E. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated. In the absence of manufacturer limits, perform remediation if test values exceed 3 pounds per 1000 square feet per 24 hours.

F. Report: Report the information required by the test method.

### 3.05 INTERNAL RELATIVE HUMIDITY TESTING

A. Where the floor covering manufacturer's requirements conflict with either the referenced test method or this specification, comply with the manufacturer's requirements.

B. Where this specification conflicts with the referenced test method, comply with the requirements of this section.

C. Test in accordance with ASTM F2170 Procedure A and as follows.

D. Testing with electrical impedance or resistance apparatus may not be substituted for the specified ASTM test method, as the values determined are not comparable to the ASTM test values and do not quantify the moisture content sufficiently.

E. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated. In the absence of manufacturer limits, perform remediation if any test value exceeds 75 percent relative humidity.

F. Report: Report the information required by the test method.

### 3.06 ALKALINITY TESTING

A. Where the floor covering manufacturer's requirements conflict with either the referenced test method or this specification, comply with the manufacturer's requirements.

B. The following procedure is the equivalent of that described in ASTM F710, repeated here for the Contractor's convenience.

1. Use a wide range alkalinity (pH) test paper, its associated chart, and distilled or deionized water.
2. Place several drops of water on a clean surface of concrete, forming a puddle approximately 1 inch in diameter. Allow the puddle to set for approximately 60 seconds, then dip the alkalinity (pH) test paper into the water, remove it, and compare immediately to chart to determine alkalinity (pH) reading.

C. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated. In the absence of manufacturer limits, perform remediation if alkalinity (pH) test value is over 10.

### 3.07 PREPARATION

A. See individual floor covering section(s) for additional requirements.

B. Comply with requirements and recommendations of floor covering manufacturer.

C. Fill and smooth surface cracks, grooves, depressions, control joints and other non-moving joints, and other irregularities with patching compound.

D. Do not fill expansion joints, isolation joints, or other moving joints.

### 3.08 ADHESIVE BOND AND COMPATIBILITY TESTING

A. Comply with requirements and recommendations of floor covering manufacturer.

### 3.09 APPLICATION OF REMEDIAL FLOOR COATING

A. Comply with requirements and recommendations of coating manufacturer.

### 3.10 PROTECTION

A. Cover prepared floors with building paper or other durable covering.

**END OF SECTION**

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**SECTION 09 2116**
**GYPSUM BOARD ASSEMBLIES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Performance criteria for gypsum board assemblies.
B. Metal stud wall framing.
C. Metal channel ceiling framing.
D. Resilient sound isolation clips.
E. Acoustic insulation.
F. Gypsum wallboard.
G. Joint treatment and accessories.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.
B. Section 05 4000 - Cold-Formed Metal Framing: Structural steel stud framing.
C. Section 06 1000 - Rough Carpentry: Building framing and sheathing.
D. Section 06 1000 - Rough Carpentry: Wood blocking product and execution requirements.
E. Section 07 2100 - Thermal Insulation: Acoustic insulation.
F. Section 07 8400 - Firestopping: Top-of-wall assemblies at fire-resistance-rated walls.
G. Section 07 9200 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.
H. Section 09 2216 - Non-Structural Metal Framing.
I. Section 09 3000 - Tiling: Tile backing board.

### 1.03 REFERENCE STANDARDS

A. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members 2016, with Supplement (2020).
B. ANSI A108.11 - American National Standard Specifications for Interior Installation of Cementitious Backer Units 2018.
C. ANSI A118.9 - American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units 2019.
D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2023.
E. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board 2017 (Reapproved 2022).
F. ASTM C514 - Standard Specification for Nails for the Application of Gypsum Board 2004 (Reapproved 2020).
G. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members 2018.
H. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products 2020.
I. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board 2020.
J. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness 2022.

K. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs 2022.

L. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base 2019.

M. ASTM C1325 - Standard Specification for Fiber-Mat Reinforced Cementitious Backer Units 2022.

N. ASTM C1396/C1396M - Standard Specification for Gypsum Board 2017.

O. ASTM C1629/C1629M - Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels 2023.

P. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber 2021.

Q. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

R. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements 2009 (Reapproved 2016).

S. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials 2022.

T. ASTM E413 - Classification for Rating Sound Insulation 2022.

U. GA-216 - Application and Finishing of Gypsum Panel Products 2021.

V. UL (FRD) - Fire Resistance Directory Current Edition.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Shop Drawings: Indicate special details associated with fireproofing and acoustic seals.

C. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.

D. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.

### 1.05 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing gypsum board installation and finishing, with minimum 5 years of experience.

## PART 2 PRODUCTS

### 2.01 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C840 and GA-216.

B. Interior Partitions, Indicated as Acoustic: Provide completed assemblies with the following characteristics:
   1. Acoustic Attenuation: STC of 45-49 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

C. Shaft Walls at HVAC Shafts: Provide completed assemblies with the following characteristics:
   1. Air Pressure Within Shaft: Sustained loads of 5 lbf/sq ft with maximum mid-span deflection of L/240.
   2. Acoustic Attenuation: STC of 35-39 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

D. Fire-Resistance-Rated Assemblies: Provide completed assemblies with the following characteristics:
   1. As indicated on drawings.

## 2.02 METAL FRAMING MATERIALS

A. Non-structural Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf.
   1. Studs: C-shaped with knurled or embossed faces.
      a. Products:
         1) Super Stud Building Products, Inc; The EDGE: www.buysuperstud.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.
   2. Paired Studs for Sound-Rated Assemblies: Engineered single-piece assemblies comprised of paired studs coupled by sound isolators, designed to replace conventional side-by-side, parallel, double-wall partition framing.
      a. Widths: As indicated on drawings.
      b. Products:
         1) SCAFCO Corporation; SoundGuard Silent Steel Framing System: www.scafco.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.
   3. Runners: U shaped, sized to match studs.
   4. Ceiling Channels: C-shaped.
   5. Furring Members: Hat-shaped sections, minimum depth of 7/8 inch.
      a. Products:
         1) MBA Building Supplies; MBA Furring Channel: www.mbastuds.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.
   6. Resilient Sound Isolation Clips: Steel resilient clips with molded rubber isolators, attaches to framing; improves noise isolation performance of wall and floor-ceiling assemblies.
      a. Products:
         1) ClarkDietrich; Sound Clip (CDSC): www.clarkdietrich.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.

B. Shaft Wall Studs and Accessories: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 and specified performance requirements.

C. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection and prevent rotation of studs while maintaining structural performance of partition.
   1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100.
   2. Material: ASTM A653/A653M steel sheet, SS Grade 50/340, with G60/Z180 hot-dipped galvanized coating.
   3. Provide components UL-listed for use in UL-listed fire-resistance-rated head of partition joint systems indicated on drawings.
   4. Provide mechanical anchorage devices as described above that accommodate deflection while maintaining the fire-resistance rating of the wall assembly.
      a. Products:
         1) ClarkDietrich; BlazeFrame RipTrak: www.clarkdietrich.com/#sle.
         2) Super Stud Building Products, Inc; Slotted Deflection Track: www.buysuperstud.com/#sle.
         3) Substitutions: See Section 01 6000 - Product Requirements.
   5. Provide top track preassembled with connection devices spaced to fit stud spacing indicated on drawings; minimum track length of 12 feet.

D. Deflection and Firestop Track: Intumescent strip factory-applied to track flanges expands when exposed to heat or flames to provide a perimeter joint seal.
   1. Products:
      a. ClarkDietrich; BlazeFrame Firestop Deflection Track: www.clarkdietrich.com/#sle.

b. Substitutions: See Section 01 6000 - Product Requirements.

E. Non-structural Framing Accessories:
1. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
2. Partial Height Wall Framing Support: Provides stud reinforcement and anchored connection to floor.
a. Products:
1) ClarkDietrich; Pony Wall (PW): www.clarkdietrich.com/#sle.
2) Substitutions: See Section 01 6000 - Product Requirements.
3. Framing Connectors: ASTM A653/A653M G90 galvanized steel clips; secures cold rolled channel to wall studs for lateral bracing.
a. Products:
1) ClarkDietrich; FastBridge Clip (FB33): www.clarkdietrich.com/#sle.
2) Substitutions: See Section 01 6000 - Product Requirements.

F. Grid Suspension Systems: Steel grid system of main tees and support bars connected to structure using hanging wire.
1. Products:
a. Armstrong Commercial Ceilings; Seismic RX: www.armstrongceilings.com/#sle. .
b. Substitutions: See Section 01 6000 - Product Requirements.

**2.03 BOARD MATERIALS**

A. Manufacturers - Gypsum-Based Board:
1. American Gypsum Company: www.americangypsum.com/#sle.
2. CertainTeed Corporation: www.certainteed.com/#sle.
3. Georgia-Pacific Gypsum: www.gpgypsum.com/#sle.
4. Gold Bond Building Products, LLC provided by National Gypsum Company: www.goldbondbuilding.com/#sle.

B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
2. At Assemblies Indicated with Fire-Resistance Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X board, UL or WH listed.
3. Thickness:
a. Vertical Surfaces: 5/8 inch.
b. Ceilings: 5/8 inch.
c. Multi-Layer Assemblies: Thicknesses as indicated on drawings.
4. Mold Resistant Paper Faced Products:
a. American Gypsum Company; M-Bloc: www.americangypsum.com/#sle.
b. CertainTeed Corporation; M2Tech 5/8" Type X Moisture & Mold Resistant Drywall: www.certainteed.com/#sle.
c. Georgia-Pacific Gypsum; ToughRock Mold-Guard: www.gpgypsum.com/#sle.
d. Substitutions: See Section 01 6000 - Product Requirements.

C. Impact Resistant Wallboard:
1. Application: High-traffic areas indicated.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
3. Type: Fire-resistance-rated Type X, UL or WH listed.
4. Thickness: 5/8 inch.
5. Edges: Tapered.
6. Paper-Faced Products:
a. American Gypsum Company; M-Bloc IR Type X: www.americangypsum.com/#sle.
b. CertainTeed Corporation; Extreme Impact Resistant Drywall with M2Tech: www.certainteed.com/#sle.

c. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond XP Hi-Impact Gypsum Board: www.goldbondbuilding.com/#sle.
d. Substitutions: See Section 01 6000 - Product Requirements.

D. Backing Board For Non-Wet Areas: Water-resistant gypsum backing board as defined in ASTM C1396/C1396M; sizes to minimum joints in place; ends square cut.
1. Application: Vertical surfaces behind thinset tile, except in wet areas.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
3. At Assemblies Indicated with Fire-Resistance Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X board, UL or WH listed.
4. Type: Regular and Type X, in locations indicated.
5. Type X Thickness: 5/8 inch.
6. Regular Board Thickness: 1/2 inch.
7. Edges: Tapered.
8. Products:
a. Georgia-Pacific Gypsum; ToughRock Mold-Guard Gypsum Board: www.gpgypsum.com/#sle.
b. Georgia-Pacific Gypsum; DensArmor Plus: www.gpgypsum.com/#sle.
c. Gold Bond Building Products, LLC provided by National Gypsum Company; Gold Bond XP Fire-Shield Gypsum Board: www.goldbondbuilding.com/#sle.
d. Substitutions: See Section 01 6000 - Product Requirements.

E. Ceiling Board: Special sag resistant gypsum ceiling board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
1. Application: Ceilings, unless otherwise indicated.
2. Thickness: 1/2 inch.
3. Edges: Tapered.
4. Products:
a. Georgia-Pacific Gypsum; ToughRock Span 24 Ceiling Board: www.gpgypsum.com/#sle.
b. Substitutions: See Section 01 6000 - Product Requirements.

**2.04 GYPSUM BOARD ACCESSORIES**

A. Acoustic Insulation: See Section 07 2100.

B. Acoustical Shielding: Recycled ethylene vinyl acetate (EVA) sheet membrane; applied between studs and gypsum board.
1. Sound Transmission Class (STC): Minimum of 25, calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.
2. Fire Resistance: Where fire-resistance rating is specified for the wall in which the acoustical shielding membrane is mounted, provide assemblies that have been tested in accordance with ASTM E119 for the same rating as the wall.
3. Products:
a. Blue Ridge Fiberboard, a W.R. Meadows Company; Soundstop Sound-Abate: www.wrmeadows.com/#sle.
b. Substitutions: See Section 01 6000 - Product Requirements.

C. Sound Isolation Tape: Elastomeric foam tape for sound decoupling.
1. Surface Burning Characteristics: Provide assemblies with flame spread index of 75 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
2. Tape Thickness: 1/4 inch.
3. Products:
a. Armacell LLC; ArmaComfort MTD: www.armacell.us/#sle.
b. Substitutions: See Section 01 6000 - Product Requirements.

D. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
   1. Products:
      a. Liquid Nails, a brand of PPG Architectural Coatings: www.liquidnails.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

E. Finishing Accessories: ASTM C1047, extruded aluminum alloy (6063 T5) or galvanized steel sheet ASTM A924/A924M G90, unless noted otherwise.
   1. Types: As detailed or required for finished appearance.
   2. Special Shapes: In addition to conventional corner bead and control joints, provide U-bead at exposed panel edges.
   3. Products:
      a. Same manufacturer as framing materials.

F. Beads, Joint Accessories, and Other Trim: ASTM C1047, rigid plastic, galvanized steel, or rolled zinc, unless noted otherwise.
   1. Corner Beads: Low profile, for 90 degree outside corners.
      a. Products:
         1) ClarkDietrich; Strait-Flex Big-Stick: www.clarkdietrich.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.

G. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch in Thickness: ASTM C954; steel drill screws, corrosion-resistant.

H. Nails for Attachment to Wood Members: ASTM C514.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

### 3.02 SHAFT WALL INSTALLATION

A. Shaft Wall Framing: Install in accordance with manufacturer's installation instructions.
   1. Install studs at spacing required to meet performance requirements.

B. Shaft Wall Liner: Cut panels to accurate dimensions and install sequentially between special friction studs.

### 3.03 FRAMING INSTALLATION

A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions.

B. Suspended Ceilings and Soffits: Space framing and furring members as indicated.

C. Studs: Space studs at 16 inches on center.
   1. Extend partition framing to structure where indicated and to ceiling in other locations.
   2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
   3. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.

### 3.04 ACOUSTIC ACCESSORIES INSTALLATION

A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.

B. Sound Isolation Tape: Apply to vertical studs and top and bottom tracks/runners in accordance with manufacturer's instructions.

C. Acoustic Sealant: Install in accordance with manufacturer's instructions.

## 3.05 BOARD INSTALLATION

A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.

B. Fire-Resistance-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.

C. Installation on Wood Framing: For rated assemblies, comply with requirements of listing authority. For nonrated assemblies, install as follows:
   1. Single-Layer Applications: Screw attachment.

## 3.06 INSTALLATION OF TRIM AND ACCESSORIES

A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.

B. Corner Beads: Install at external corners, using longest practical lengths.

C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

## 3.07 JOINT TREATMENT

A. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.

B. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
   1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
   2. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
   3. Level 1: Fire-resistance-rated wall areas above finished ceilings, whether or not accessible in the completed construction.

C. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch.

## 3.08 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

**END OF SECTION**

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**SECTION 09 2216**
**NON-STRUCTURAL METAL FRAMING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Metal partition, ceiling, and soffit framing.

B. Framing accessories.

### 1.02 RELATED REQUIREMENTS

A. Section 05 4000 - Cold-Formed Metal Framing: Requirements for structural, load-bearing, metal stud framing and exterior wall stud framing.

B. Section 05 5000 - Metal Fabrications: Metal fabrications attached to stud framing.

C. Section 06 1000 - Rough Carpentry: Wood blocking within stud framing.

D. Section 06 1000 - Rough Carpentry: Wall sheathing.

E. Section 07 2100 - Thermal Insulation: Acoustic insulation.

F. Section 07 6200 - Sheet Metal Flashing and Trim: Head and sill flashings.

G. Section 07 8400 - Firestopping: Sealing top-of-wall assemblies at fire-resistance-rated walls.

H. Section 07 9200 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.

I. Section 08 3100 - Access Doors and Panels.

J. Section 08 5113 - Aluminum Windows: Product requirements for window anchors.

K. Section 08 5653 - Security Windows: Product requirements for window anchors.

L. Section 09 2116 - Gypsum Board Assemblies: Metal studs for gypsum board partition framing.

M. Section 09 2116 - Gypsum Board Assemblies: Execution requirements for anchors for attaching work of this section.

### 1.03 REFERENCE STANDARDS

A. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members 2016, with Supplement (2020).

B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2023.

C. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members 2018.

D. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products 2020.

E. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs 2022.

F. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Shop Drawings:
   1. Indicate prefabricated work, component details, stud layout, framed openings, anchorage to structure, acoustic details, type and location of fasteners, accessories, and items of other related work.
   2. Describe method for securing studs to tracks, splicing, and for blocking and reinforcement of framing connections.

C. Product Data: Provide data describing framing member materials and finish, product criteria, load charts, and limitations.

### 1.05 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience and approved by manufacturer.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Metal Framing, Connectors, and Accessories:
   1. ClarkDietrich: www.clarkdietrich.com/#sle.
   2. Jaimes Industries: www.jaimesind.com/#sle.
   3. Marino: www.marinoware.com/#sle.
   4. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 FRAMING MATERIALS

A. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/240 at 5 psf.
   1. Studs: C shaped with knurled or embossed faces.
   2. Runners: U shaped, sized to match studs.
   3. Ceiling Channels: C shaped.
   4. Furring: Hat-shaped sections, minimum depth of 7/8 inch.
   5. Resilient Sound Isolation Clips: Steel resilient clips with molded rubber isolators, attaches to framing; improves noise isolation for areas between gypsum board assemblies and adjacent sources of noise.

B. Partition Head to Structure Connections: Provide track fastened to structure with legs of sufficient length to accommodate deflection, for friction fit of studs cut short and braced with continuous bridging on both sides.

C. Non-Loadbearing Framing Accessories:
   1. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
   2. Partial Height Wall Framing Support: Provides stud reinforcement and anchored connection to floor.
   3. Framing Connectors: ASTM A653/A653M G90 galvanized steel clips; secures cold rolled channel to wall studs for lateral bracing.
   4. Fasteners: ASTM C1002 self-piercing tapping screws.
   5. Anchorage Devices: Powder actuated.
   6. Acoustic Insulation: See Section 07 2100.
   7. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.

D. Sound Isolation Tape: Elastomeric foam tape for sound decoupling.
   1. Surface Burning Characteristics: Provide assemblies with flame spread index of 75 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
   2. Tape Thickness: 1/4 inch.
   3. Products:
      a. Armacell LLC; ArmaSound MTD: www.armacell.us/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

### 2.03 FABRICATION

A. Fabricate assemblies of framed sections to sizes and profiles required.

B. Fit, reinforce, and brace framing members to suit design requirements.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify existing conditions before starting work.

### 3.02 INSTALLATION OF STUD FRAMING

A. Extend partition framing to structure where indicated and to ceiling in other locations.

B. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.

C. Align and secure top and bottom runners at 24 inches on center.

D. Fit runners under and above openings; secure intermediate studs to same spacing as wall studs.

E. Install studs vertically at spacing indicated on drawings.

F. Align stud web openings horizontally.

G. Secure studs to tracks using crimping method. Do not weld.

H. Fabricate corners using a minimum of three studs.

I. Install double studs at wall openings, door and window jambs, not more than 2 inches from each side of openings.

J. Coordinate installation of bucks, anchors, and blocking with electrical, mechanical, and other work to be placed within or behind stud framing.

K. Blocking: Use wood blocking secured to studs. Provide blocking for support of plumbing fixtures, toilet partitions, wall cabinets, toilet accessories, hardware, and opening frames.

L. Sound Isolation Clips: Mechanically attach to framing or structure with fasteners recommended by clip manufacturer. Install at spacing indicated on drawings.

M. Furring: Coordinate with sound isolation clip spacing and locations. Lap splices a minimum of 6 inches.

### 3.03 CEILING AND SOFFIT FRAMING

A. Comply with requirements of ASTM C754.

B. Install furring after work above ceiling or soffit is complete. Coordinate the location of hangers with other work.

C. Install furring independent of walls, columns, and above-ceiling work.

D. Securely anchor hangers to structural members or embed them in structural slab. Space hangers as required to limit deflection to criteria indicated. Use rigid hangers at exterior soffits.

E. Space main carrying channels at maximum 72 inch on center, and not more than 6 inches from wall surfaces. Lap splice securely.

F. Securely fix carrying channels to hangers to prevent turning or twisting and to transmit full load to hangers.

G. Place furring channels perpendicular to carrying channels, not more than 2 inches from perimeter walls, and rigidly secure. Lap splices securely.

### 3.04 TOLERANCES

A. Maximum Variation From True Position: 1/8 inch in 10 feet.

**END OF SECTION**

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**SECTION 09 3000**
**TILING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Tile for floor applications.

B. Tile for wall applications.

C. Cementitious backer board as tile substrate.

D. Stone thresholds.

E. Non-ceramic trim.

### 1.02 RELATED REQUIREMENTS

A. Section 07 9200 - Joint Sealants: Sealing joints between tile work and adjacent construction and fixtures.

B. Section 09 0561 - Common Work Results for Flooring Preparation: Concrete slab moisture and alkalinity testing and remediation procedures.

C. Section 09 2116 - Gypsum Board Assemblies: Tile backer board.

### 1.03 REFERENCE STANDARDS

A. ANSI A108/A118/A136 - American National Standard Specifications for the Installation of Ceramic Tile (Compendium) 2019.

B. ANSI A108.1a - American National Standard Specifications for Installation of Ceramic Tile in the Wet-Set Method, with Portland Cement Mortar 2017 (Reaffirmed 2022).

C. ANSI A108.1b - American National Standard Specifications for Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex-Portland Cement Mortar 2017.

D. ANSI A108.1c - Contractor's Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar or Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex-Portland Cement Mortar 1999 (Reaffirmed 2021).

E. ANSI A108.2 - American National Standard General Requirements: Materials, Environmental and Workmanship 2019.

F. ANSI A108.4 - American National Standard Specifications for Installation of Ceramic Tile with Organic Adhesive or Water Cleanable Tile-Setting Epoxy Adhesive 2019.

G. ANSI A108.5 - American National Standard Specifications for Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar 2021.

H. ANSI A108.6 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and -Grout Epoxy 1999 (Reaffirmed 2019).

I. ANSI A108.8 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant Furan Resin Mortar and Grout 1999 (Reaffirmed 2019).

J. ANSI A108.9 - American National Standard Specifications for Installation of Ceramic Tile with Modified Epoxy Emulsion Mortar/Grout 1999 (Reaffirmed 2019).

K. ANSI A108.10 - American National Standard Specifications for Installation of Grout in Tilework 2017 (Reaffirmed 2022).

L. ANSI A108.11 - American National Standard Specifications for Interior Installation of Cementitious Backer Units 2018.

M. ANSI A108.12 - American National Standard for Installation of Ceramic Tile with EGP (Exterior Glue Plywood) Latex-Portland Cement Mortar 1999 (Reaffirmed 2019).

N. ANSI A108.13 - American National Standard for Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone 2005 (Reaffirmed 2021).

O. ANSI A108.19 - American National Standard Specifications for Interior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs by the Thin-Bed Method Bonded with Modified Dry-Set Cement Mortar or Improved Modified Dry-Set Cement Mortar 2020.

P. ANSI A108.20 - American National Standard Specifications for Exterior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs 2020.

Q. ANSI A118.6 - American National Standard Specifications for Standard Cement Grouts for Tile Installation 2019.

R. ANSI A118.7 - American National Standard Specifications for High Performance Cement Grouts for Tile Installation 2019.

S. ANSI A118.9 - American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units 2019.

T. ANSI A118.10 - American National Standard Specifications for Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone 2014 (Reaffirmed 2019).

U. ANSI A118.12 - American National Standard Specifications for Crack Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation 2014 (Reaffirmed 2019).

V. ANSI A118.15 - American National Standard Specifications for Improved Modified Dry-Set Cement Mortar 2019.

W. ANSI A137.1 - American National Standard Specifications for Ceramic Tile 2022.

X. ANSI A137.2 - American National Standard Specifications for Glass Tile 2022.

Y. ASTM C373 - Standard Test Methods for Determination of Water Absorption and Associated Properties by Vacuum Method for Pressed Ceramic Tiles and Glass Tiles and Boil Method for Extruded Ceramic Tiles and Non-tile Fired Ceramic Whiteware Products 2018 (Reapproved 2023).

Z. TCNA (HB) - Handbook for Ceramic, Glass, and Stone Tile Installation 2023.

**1.04 ADMINISTRATIVE REQUIREMENTS**

A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by affected installers.

**1.05 SUBMITTALS**

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.

C. Samples: Provide full-size samples for each tile type/color.

D. Installer's Qualification Statement:
   1. Submit documentation of National Tile Contractors Association (NTCA) or Tile Contractors' Association of America (TCAA) accreditation.

E. Maintenance Data: Include recommended cleaning methods, cleaning materials, and stain removal methods.

F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.
   2. Extra Tile: 10 square feet of each size, color, and surface finish combination.

## 1.06 QUALITY ASSURANCE

A. Maintain one copy of and ANSI A108/A118/A136 and TCNA (HB) on site.

B. Installer Qualifications: Natural Stone Institute (NSI) Accredited Commercial B Contractor (light commercial): www.naturalstoneinstitute.org/#sle.

C. Installer Qualifications:
   1. Company specializing in performing tile installation, with minimum of five years of documented experience.

## 1.07 MOCK-UPS

A. See Section 01 4000 - Quality Requirements for general requirements for mock-up.

B. Construct tile mock-up where indicated on drawings, incorporating all components specified for the location.
   1. Minimum size of mock-up is indicated on drawings.
   2. Approved mock-up may remain as part of work.

## 1.08 DELIVERY, STORAGE, AND HANDLING

A. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

## 1.09 FIELD CONDITIONS

A. Do not install solvent-based products in an unventilated environment.

B. Maintain ambient and substrate temperature above 50 degrees F and below 100 degrees F during installation and curing of setting materials.

# PART 2 PRODUCTS

## 2.01 TILE

A. Manufacturers:
   1. Basis of Design for Porcelain tile (PRT) and Glazed Wall Tile (GWT): American Olean Corporation: www.americanolean.com/#sle- Available through Best Tile- Syracuse, N.Y.- Contact Sharon Mironti at 315-391-8203.
   2. Basis of Design for Porcelain Tile (PRT and PRTW): Caesar Ceramics USA; www.caesar.it/us/caesarusa- Available through Best Tile- Syracuse, N.Y.- Contact Sharon Mironti at 315-391-8203.
   3. Substitutions: See Section 01 6000 - Product Requirements.

B. Glazed Wall Tile (GWT) : ANSI A137.1 standard grade.
   1. Moisture Absorption: 7.0 to 20.0 percent as tested in accordance with ASTM C373.
   2. Size: (see size by type)l.
   3. Edges: Cushioned.
   4. Surface Finish: High gloss and Matte- per tile color.
   5. Color(s):
      a. GWT-1: "Ice White"- 4" x 4" to match adjacent existing tile in Locker Rooms.
      b. GWT-1A: "Matte Shadow"-4" x 4" in Girls Locker Room where noted.
      c. GWT-2: "Matte Balance"- 4" x 16" for backsplash area in FACS Culinary and Faculty Rms.
   6. Pattern: Shown on Sheets: # A200, A205, A207.
   7. Products:
      a. American Olean: Color Story series..
      b. Substitutions: See Section 01 6000 - Product Requirements.

C. Porcelain Tile (PRT): ANSI A137.1 standard grade.
   1. Moisture Absorption: 0 to 0.5 percent as tested in accordance with ASTM C373.
   2. Size: PRT and PRTW-1; 12" x 24"; PRTW-2; 8" x 40" , nominal.
   3. Thickness: 5/16 inch.

4. Surface Finish: Unglazed.
5. Color(s):
    a. PRT-1 (Floor Tile- size 12" x 24"): Caesar "Style" series- Color: Lively.
    b. PRT-2 (Wall Tile- size 8" x 40"): Caesar "Style" series- Color: Pure.
    c. PRT-3 (Wall Tile- size 2.5 "x 19" listels mosaic): Caesar "Whisper" series- Color: Forest.
6. Pattern: See sheet #A205.
7. Products:
    a. Ceasar Ceramics USA; www.caesar.it/us/caesarusa.
    b. Substitutions: See Section 01 6000 - Product Requirements.

D. Porcelain Mosaic Tile: (PMT) ANSI A137.1 standard grade.
1. Porcelain Mosaic Tiles (PMT-1):
    a. Size: Random interlocking mosaic blend tiles 2"x2" nominal, on mesh backing.
    b. Thickness: 1/4 inch.
2. Moisture Absorption: 0 to 0.5 percent as tested in accordance with ASTM C373.
3. Opacity: opaque as defined in ANSI A137.2.
4. Color(s): Provide match to existing floor tile in Girls Locker Room.
5. Products:
    a. Basis of Design: American Olean- "Unglazed Mosaics" series; www.americanolean.com/#sle.
    b. Substitutions: See Section 01 6000 - Product Requirements.

**2.02 TRIM AND ACCESSORIES**

A. Non-Ceramic Trim: Satin natural anodized extruded aluminum, style and dimensions to suit application, for setting using tile mortar or adhesive.
1. Applications:
    a. Open edges of wall tile.
    b. Open edges of floor tile.
    c. Wall corners, outside and inside.
    d. Transition between floor finishes of different heights.
    e. Expansion and control joints, floor and wall.
    f. Floor to wall joints.
    g. Borders and other trim as indicated on drawings.
2. Manufacturers:
    a. Schluter-Systems: www.schluter.com/#sle.
    b. Substitutions: See Section 01 6000 - Product Requirements.

B. Thresholds: 2 inches wide by full width of wall or frame opening; beveled edge on both long edges; without holes, cracks, or open seams.
1. Thickness: 1/2 inch.
2. Material: Marble, honed finish.
3. Applications:
    a. At doorways where new tile terminates, unless noted otherwise.

**2.03 SETTING MATERIALS**

A. Provide setting and grout materials from same manufacturer.

B. Improved Latex-Portland Cement Mortar Bond Coat: ANSI A118.15.
1. Applications: Use this type of bond coat where Large and Heavy Tile (LHT) mortar is indicated.
2. Products:
    a. LATICRETE International, Inc; LATICRETE 254 Platinum: www.laticrete.com/#sle.
    b. Substitutions: See Section 01 6000 - Product Requirements.

## 2.04 GROUTS

A. Provide setting and grout materials from same manufacturer.

B. High Performance Polymer Modified Grout: ANSI A118.7 polymer modified cement grout.
   1. Applications: Use this type of grout where indicated and where no other type of grout is indicated.
   2. Use sanded grout for joints 1/8 inch wide and larger; use unsanded grout for joints less than 1/8 inch wide.
   3. Color(s): As selected by Architect from manufacturer's full line.
   4. Products:
      a. LATICRETE International, Inc; LATICRETE PERMACOLOR Grout: www.laticrete.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

## 2.05 MAINTENANCE MATERIALS

A. Tile Sealant: Gunnable, silicone, siliconized acrylic, or urethane sealant; moisture and mildew resistant type.
   1. Applications: Between tile and plumbing fixtures.
   2. Products:
      a. LATICRETE International, Inc; LATICRETE LATASIL: www.laticrete.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

## 2.06 ACCESSORY MATERIALS

A. Waterproofing Membrane at Floors: Specifically designed for bonding to cementitious substrate under thick mortar bed or thin-set tile; complying with ANSI A118.10.
   1. Crack Resistance: No failure at 1/16 inch gap, minimum; comply with ANSI A118.12.
   2. Fluid or Trowel Applied Type:
      a. Thickness: 25 mils, minimum, dry film thickness.
      b. Products:
         1) LATICRETE International, Inc; LATICRETE HYDRO BAN: www.laticrete.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.

B. Backer Board: Reference Section 09 2116 Gysum Board Assemblies.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify that subfloor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.

B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive tile.

C. Verify that subfloor surfaces are dust free and free of substances that could impair bonding of setting materials to subfloor surfaces.

D. Cementitious Subfloor Surfaces: Verify that substrates are ready for tiling installation by testing for moisture and alkalinity (pH).
   1. Test in accordance with Section 09 0561.
   2. Obtain instructions if test results are not within limits recommended by tiling material manufacturer and setting material manufacturer.
   3. Follow moisture and alkalinity remediation procedures in Section 09 0561.

## 3.02 PREPARATION

A. Protect surrounding work from damage.

B. Vacuum clean surfaces and damp clean.

C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.

D. Install backer board in accordance with ANSI A108.11 and board manufacturer's instructions. Tape joints and corners, cover with skim coat of setting material to a feather edge.

**3.03 INSTALLATION - GENERAL**

A. Install tile, thresholds, and stair treads and grout in accordance with applicable requirements of ANSI A108.1a through ANSI A108.20, manufacturer's instructions, and TCNA (HB) recommendations.

B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.

C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.

D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.

E. Form internal angles square and external angles bullnosed.

F. Install non-ceramic trim in accordance with manufacturer's instructions.

G. Install thresholds where indicated.

H. Sound tile after setting. Replace hollow sounding units.

I. Keep control and expansion joints free of mortar, grout, and adhesive.

J. Prior to grouting, allow installation to completely cure; minimum of 48 hours.

K. Grout tile joints unless otherwise indicated. Use standard grout unless otherwise indicated.

L. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.

**3.04 INSTALLATION - FLOORS - THIN-SET METHODS**

A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F113, dry-set or latex-Portland cement bond coat, with standard grout, unless otherwise indicated.

**3.05 INSTALLATION - WALL TILE**

A. Over cementitious backer units on metal studs with TCNA (HB) Method W244, using membrane at toilet rooms.

B. Over CMU walls with TCNA recommended method.

**3.06 CLEANING**

A. Clean tile and grout surfaces.

**3.07 PROTECTION**

A. Do not permit traffic over finished floor surface for 4 days after installation.

**END OF SECTION**

**SECTION 09 5100**
**ACOUSTICAL CEILINGS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Suspended metal grid ceiling system.

B. Light-integrated grid.

C. Acoustical units.

D. Cementitious wood fiber ceiling clouds.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.

### 1.03 REFERENCE STANDARDS

A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures Most Recent Edition Cited by Referring Code or Reference Standard.

B. ASTM C635/C635M - Standard Specification for Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings 2022.

C. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials 2022.

D. ASTM E1264 - Standard Classification for Acoustical Ceiling Products 2023.

### 1.04 ADMINISTRATIVE REQUIREMENTS

A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.

B. Do not install acoustical units until after interior wet work is dry.

### 1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data on suspension system components and acoustical units.

C. Samples: Submit two samples 4 inches by 4 inches in size illustrating material and finish of acoustical units.

D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.
   2. Extra Acoustical Units: Quantity equal to 5 percent of total installed.

### 1.06 QUALITY ASSURANCE

A. Suspension System Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

B. Acoustical Unit Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

### 1.07 FIELD CONDITIONS

A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Acoustic Tiles/Panels:
   1. Basis of Design: Armstrong World Industries, Inc: www.armstrongceilings.com/#sle.

2. Substitutions: See Section 01 6000 - Product Requirements.

B. Suspension Systems:
1. Same as for acoustical units.
2. Substitutions: See Section 01 6000 - Product Requirements.

## 2.02 PERFORMANCE REQUIREMENTS

A. Fire-Resistance Rating: Determined in accordance with test procedures in ASTM E119 and complying with the following:
1. UL (FRD) Assembly Design No. as noted on documents.

B. Seismic Performance: Ceiling systems designed to withstand the effects of earthquake motions determined according to ASCE 7 for Seismic Design Category D and complying with the following:
1. Local authorities having jurisdiction.

## 2.03 ACOUSTICAL UNITS

A. Acoustical Units - General: ASTM E1264, Class A.
1. VOC Content: As specified in Section 01 6116.

B. Acoustical Panels, Type ACT-1; ACT-2: Painted wet-formed mineral fiber, with the following characteristics:
1. Application(s): Offices, Corridors, Classrooms, Cafeteria.
2. Classification: ASTM E1264 Type III.
3. Fire Performance: Class A.
4. Size: ACT-1: 24 by 48 inches; ACT-2: 24 by 24 inches (610 by 610 mm.)
5. Thickness: 3/4 inch.
6. Light Reflectance: .82 percent, determined in accordance with ASTM E1264.
7. NRC Range: 70 determined in accordance with ASTM E1264.
8. Ceiling Attenuation Class (CAC): 40, determined in accordance with ASTM E1264.
9. Panel Edge: Square.
10. Color: White.
11. Suspension System Type DX-15/16": Exposed grid.
12. Products:
    a. Basis of Design: subject to compliance with project requirements, the design is based on the following: Armstrong World Industries, Inc; School Zone- Fine Fissured with Fire Guard - ACT-1: #1810; ACT-2: #1811.: www.armstrongceilings.com/#sle.
    b. Substitutions: See Section 01 6000 - Product Requirements.

C. Acoustical Panels, Type ACT-3: Painted mineral fiber, with the following characteristics:
1. Application(s): Technology Classroom #303.
2. Classification: ASTM E1264 Type III.
3. Fire Performance: Class A.
4. Size: 24 by 24 inches.
5. Thickness: 1 inch.
6. Light Reflectance: .87 percent, determined in accordance with ASTM E1264.
7. NRC Range: 80 determined in accordance with ASTM E1264.
8. Panel Edge: Square.
9. Suspension System Type DX-15/16": Exposed grid.
10. Products:
    a. Basis of Design: subject to compliance with project requirements, the design is based on the following: Armstrong World Industries, Inc.: "Pebble" High NRC-Perforated -.
    b. Substitutions: See Section 01 6000 - Product Requirements.

D. Acoustical Panels, Type ACT-4: Mineral fiber with acoustically-transparent membrane-faced overlay and factory-applied latex paint, with the following characteristics:

1. Application(s): Music Suite: Band, Chorus, Practice Rooms, Storage, Music Office.
2. Classification: ASTM E1264 Type IV.
3. Size: 24 by 48 inches.
4. Thickness: 3/4 inch.
5. Light Reflectance: .85 percent, determined in accordance with ASTM E1264.
6. NRC Range: 85, determined in accordance with ASTM E1264.
7. Articulation Class (AC): 170, determined in accordance with ASTM E1264.
8. Ceiling Attenuation Class (CAC): 35, determined in accordance with ASTM E1264.
9. Panel Edge: Square.
10. Color: White.
11. Suspension System Type Prelude XL 15/16": Exposed grid.
12. Products:
    a. Basis of Design: Armstrong World Industries, Inc; Calla: www.armstrongceilings.com/#sle.
    b. Substitutions: See Section 01 6000 - Product Requirements.

E. Acoustical Shapes and Cloud ceilings (TEC) panels: Cementious wood fiber ceiling clouds custom shaped as shown in documents.
1. Surface Texture: Coarse.
2. Composition: Aspen wood fibers bonded with inorganic hydraulic cement.
3. Color: Custom coloration.
4. Size: as shown in details located on sheet A302.
5. Thickness: 2".
6. Edge profile: Eased edge.
7. Noise absorption: up to 0.41 sabins S/F.
8. Flame Spread: ASTM E 1264; Fire Class A.
9. Dimensional stability: Humigard Plus.
10. Sustainability: EPD (Environmental Product Declaration) and HPD (Health Product Declaration).
11. Basis of Design: Tectum Shapes and or Clouds as manufactured by Armstrong World Industries.
12. Suspension System: as detail on sheet A302.

**2.04 SUSPENSION SYSTEM(S)**

A. Metal Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with perimeter moldings, hold down clips, stabilizer bars, clips, and splices as required.

B. Metal Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with perimeter moldings, hold down clips, stabilizer bars, clips, and splices as required.

C. Exposed Suspension System: Hot-dipped galvanized steel grid with steel cap.
1. Application(s): Seismic- for design category-D.
2. Structural Classification: Intermediate-duty, when tested in accordance with ASTM C635/C635M.
3. Profile: Tee; 15/16 inch face width.
4. Finish: Baked enamel.
5. Color: White.
6. Products:
    a. Armstrong World Industries; Prelude 15/16..
    b. Substitutions: See Section 01 6000 - Product Requirements.

D. Light-integrated grid:

1. Basis of Design: T-Bar Flex Lighting by JLC Tech- Armstrong Ceiling Systems. To be coordinated with Electrical Contractor for installation. See locations in Cafeteria on sheet A300.

**2.05 ACCESSORIES**

A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.

B. Hanger Wire: 12 gauge, 0.08 inch galvanized steel wire.

C. Hold-Down Clips: Manufacturer's standard clips to suit application.

D. Seismic Clips: Manufacturer's standard clips for seismic conditions and to suit application.

E. Perimeter Moldings: Same metal and finish as grid.
   1. Size: As required for installation conditions and specified Seismic Design Category.
   2. Angle Molding: L-shaped, for mounting at same elevation as face of grid.

F. Metal Edge Trim for "Cloud" Suspension Systems: Steel or extruded aluminum; provide attachment clips, splice plates, and preformed corner pieces for complete trim system.
   1. Trim Height: 6 inch.
   2. Finish: Baked enamel.
   3. Color: White.
   4. Products:
      a. Armstrong World Industries; Axiom Trim..
      b. Substitutions: See Section 01 6000 - Product Requirements.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify existing conditions before starting work.

B. Verify that layout of hangers will not interfere with other work.

**3.02 PREPARATION**

A. Install after major above-ceiling work is complete.

B. Coordinate the location of hangers with other work.

**3.03 INSTALLATION - SUSPENSION SYSTEM**

A. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.

B. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
   1. Use longest practical lengths.

C. Suspension System, Non-Seismic: Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.

D. Seismic Suspension System, Seismic Design Categories D, E, F: Hang suspension system with grid ends attached to the perimeter molding on two adjacent walls; on opposite walls, maintain a 3/4 inch clearance between grid ends and wall.

E. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.

F. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.

G. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.

H. Do not eccentrically load system or induce rotation of runners.

I. Form expansion joints as detailed. Form to accommodate plus or minus 1 inch movement. Maintain visual closure.

**3.04 INSTALLATION - ACOUSTICAL UNITS**

A. Install acoustical units in accordance with manufacturer's instructions.

B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.

C. Fit border trim neatly against abutting surfaces.

D. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.

E. Cutting Acoustical Units:
   1. Make field cut edges of same profile as factory edges.

F. Lay acoustical insulation for a distance of 48 inches either side of acoustical partitions as indicated.

G. Install hold-down clips on panels within 20 ft of an exterior door.

**3.05 TOLERANCES**

A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.

B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

**3.06 CLEANING**

A. See Section 01 7000 - Execution and Closeout Requirements for additional requirements.

B. Clean surfaces.

C. Replace damaged or abraded components.

**END OF SECTION**

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**SECTION 09 5114**
**ACOUSTICAL FABRIC-FACED PANEL CEILINGS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Curved fabric wrapped ceiling clouds.

B. Trim and miscellaneous accessories.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.

B. Section 05 3100 - Steel Decking: Placement of special anchors or inserts for suspension system.

C. Section 23 3700 - Air Outlets and Inlets.

D. Section 26 5100 - Interior Lighting.

### 1.03 REFERENCE STANDARDS

A. ASTM C423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method 2023.

B. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2023.

C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

D. ASTM E1264 - Standard Classification for Acoustical Ceiling Products 2023.

E. ASTM E1477 - Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers 1998a (Reapproved 2022).

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Fabric Selection Samples: Manufacturer's full range of fabric samples illustrating available colors and textures.

D. Verification Samples: One samples, minimum size 8 by 8 inches, representing actual acoustical panel product.

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver products in manufacturer's unopened packaging and store unopened in fully enclosed space until ready for installation. Protect products from exposure to sunlight, moisture, and mechanical damage.

B. Handle acoustical panels carefully to avoid soiling exposed surfaces or damaging surfaces and edges.

### 1.06 FIELD CONDITIONS

A. Maintain temperature within 15 degrees Fahrenheit and relative humidity within 10 percent of design conditions for spaces of installation not less than 48 hours before installation begins and thereafter.

## 1.07 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

B. Provide acoustical panel manufacturer's standard written ten-year limited warranty.

## PART 2 PRODUCTS

## 2.01 ACOUSTICAL PANELS

A. Manufacturers:
   1. Acoustics First Corporation Sonora Sound Wave Ceiling Clouds; www.acousticsfirst.com.
   2. Substitutions: See Section 01 6000 - Product Requirements.

B. Provide panels comprising a composite structural fiberglass core with nonwoven polyester textile surface wrapped on edges; with properties as follows:
   1. Panel Thickness: 1 inch.
   2. Panel Size: As shown on reflected ceiling plan.
   3. Recycled content: Fiberglass- 52% pre-consumer and 5% post-consumer recycled content..
   4. Edge Condition: Provide the following:
      a. Square resin-hardened edge.
   5. Radius: 132 degree concave or convex where shown on construction documents.
   6. Noise Reduction Coefficient (NRC): Minimum 0.85, measured in accordance with ASTM C423.
   7. Sound Absorption Average: (SAA) 0.89, measured in accordance with ASTM C423.
   8. Surface Burning Characteristics: Flame spread index less than 25, smoke developed index less than 100; Class A, per ASTM E84 and ASTM E1264.
   9. Light Reflectance: LR-1 (0.75), measured in accordance with ASTM E1477.
   10. Moisture Resistance: Resistant to relative humidity up to 95 percent at 104 degrees F for 30 days.
   11. Mold and Mildew Resistance: In accordance with requirements of ASTM C665.

**END OF SECTION**

**SECTION 09 6500**
**RESILIENT FLOORING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Resilient sheet flooring.

B. Resilient tile flooring.

C. Resilient base.

D. Installation accessories.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.

B. Section 09 0561 - Common Work Results for Flooring Preparation: Removal of existing floor coverings, cleaning, and preparation.

C. Section 09 0561 - Common Work Results for Flooring Preparation: Concrete slab moisture and alkalinity testing and remediation procedures.

### 1.03 REFERENCE STANDARDS

A. ASTM D6329 - Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers 1998 (Reapproved 2023).

B. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source 2019a, with Editorial Revision (2020).

C. ASTM F970 - Standard Test Method for Measuring Recovery Properties of Floor Coverings after Static Loading 2022.

D. ASTM F1066 - Standard Specification for Vinyl Composition Floor Tile 2004 (Reapproved 2018).

E. ASTM F1700 - Standard Specification for Solid Vinyl Floor Tile 2020.

F. ASTM F1861 - Standard Specification for Resilient Wall Base 2021.

G. ASTM F1913 - Standard Specification for Vinyl Sheet Floor Covering Without Backing 2019.

H. NFPA 253 - Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source 2023.

I. UL 2824 - GREENGUARD Certification Program Method for Measuring Microbial Resistance from Various Sources Using Static Environmental Chambers Current Edition, Including All Revisions.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Shop Drawings: Indicate seaming plans and floor patterns.

C. Verification Samples: Submit two samples, 3 inch by 3 inch in size illustrating color and pattern for each resilient flooring product specified.

D. Manufacturer's Qualification Statement.

E. Installer's Qualification Statement.

F. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.

2. Extra Flooring Material: 30 square feet of each type and color.
3. Extra Wall Base: 20 linear feet of each type and color.

**1.05 QUALITY ASSURANCE**

A. Manufacturer Qualifications: Company specializing in manufacturing specified flooring with minimum three years documented experience.

B. Installer Qualifications: Company specializing in installing specified flooring with minimum three years documented experience.

C. Testing Agency Qualifications: Independent firm specializing in performing concrete slab moisture testing and inspections of the type specified in this section.

**1.06 DELIVERY, STORAGE, AND HANDLING**

A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.

B. Store all materials off of the floor in an acclimatized, weather-tight space.

C. Maintain temperature in storage area between 55 degrees F and 90 degrees F.

D. Protect roll materials from damage by storing on end.

E. Do not double stack pallets.

**1.07 FIELD CONDITIONS**

A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

**PART 2 PRODUCTS**

**2.01 SHEET FLOORING**

A. Sheet Vinyl Flooring - Type SVF-1: Homogeneous without backing, with color and pattern throughout full thickness.
   1. Manufacturers:
      a. Basis of Design: IQ Optima- Tarkett Commercial; www.commercial.tarkett.com/#sle.
   2. Minimum Requirements: Comply with ASTM F1913.
   3. Critical Radiant Flux (CRF): Class 1; Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
   4. VOC Content Limits: As specified in Section 01 6116.
   5. Thickness: 0.146 inch nominal (3.7mm).
   6. Roll size: width: 6'-6" x 82'-7" long.
   7. Static Load Resistance: 250 psi minimum, when tested as specified in ASTM F970.
   8. Seams: Heat welded- color to match flooring.
   9. Acoustical: Impact insulation class of 61 IIC when tested in accordance with ASTM E492.
   10. Color: To be selected by Architect from manufacturer's full range.

B. Welding Rod: Solid bead in material compatible with flooring, produced by flooring manufacturer for heat welding seams, and in color matching field color.

**2.02 TILE FLOORING**

A. Vinyl Composition Tile - Type VCT-1, 2, 3: Homogeneous, with color extending throughout thickness.
   1. Manufacturers:
      a. Basis of Design: Tarkett Company: www.johnsonite.com/#sle. VCT II Series.
      b. Substitutions: See Section 01 6000 - Product Requirements.
   2. Minimum Requirements: Comply with ASTM F1066, of Class corresponding to type specified.
   3. Size: 12 by 12 inch.

4. Thickness: 0.125 inch.
5. Pattern: AS indicated on drawings.
6. Color: to be selected by Architect from manufacturer's full range. In areas of renovation where a portion of the floor is to be patched-in; match existing adjacent color and pattern.

**2.03 RESILIENT BASE**

A. Resilient Base - Type RB-1: ASTM F1861, Type TS rubber, vulcanized thermoset; style as scheduled.
   1. Manufacturers:
      a. Basis of Design: Johnsonite Baseworks (Type TS): www.commercial.tarkett.com#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.
   2. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
   3. Height: 4 inch.
   4. Thickness: 0.125 inch.
   5. Finish: Satin.
   6. Length: Roll.
   7. Corners: Outside: Wrap; Inside: Mitre in field.
   8. Color: To be selected by Architect from manufacturer's full range.

**2.04 ACCESSORIES**

A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.

B. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring manufacturer.

C. Moldings, Transition and Edge Strips: Same material as flooring.
   1. Manufacturers:
      a. Johnsonite Slimline Finishing Accessories, or type as noted in details: www.commercial.tarkett.com#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

D. Filler for Coved Base: Plastic.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.

B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.

C. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).
   1. Test in accordance with Section 09 0561.
   2. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.

**3.02 PREPARATION**

A. Remove subfloor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with subfloor filler to achieve smooth, flat, hard surface.

B. Prohibit traffic until filler is fully cured.

**3.03 INSTALLATION - GENERAL**

A. Starting installation constitutes acceptance of subfloor conditions.

B. Install in accordance with manufacturer's written instructions.

**3.04 INSTALLATION - SHEET FLOORING**

A. Lay flooring with joints and seams parallel to longer room dimensions, to produce minimum number of seams. Lay out seams to avoid widths less than 1/3 of roll width; match patterns at seams.

B. Seal seams by heat welding where indicated.

**3.05 INSTALLATION - TILE FLOORING**

A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer's installation instructions.

**3.06 INSTALLATION - RESILIENT BASE**

A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.

B. Install base on solid backing. Bond tightly to wall and floor surfaces.

**3.07 CLEANING**

A. Remove excess adhesive from floor, base, and wall surfaces without damage.

B. Clean in accordance with manufacturer's written instructions.

**3.08 PROTECTION**

A. Prohibit traffic on resilient flooring for 48 hours after installation.

**END OF SECTION**

**SECTION 09 6623**
**RESINOUS MATRIX TERRAZZO FLOORING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Epoxy matrix terrazzo with ground and polished finish.

B. Divider strips.

C. Precast epoxy terrazzo wall base.

### 1.02 RELATED REQUIREMENTS

A. Section 09 0561 - Common Work Results for Flooring Preparation: Concrete slab moisture and alkalinity testing and remediation procedures.

### 1.03 REFERENCE STANDARDS

A. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes 2019a.

B. NTMA (COLOR) - Terrazzo Color Palettes Current Edition.

C. NTMA (GRAD) - Aggregate Gradation Standards Current Edition.

D. NTMA (EPOXY) - Epoxy Terrazzo Specifications Current Edition.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data for divider strips, control joint strips, expansion joints, and sealer; include printed copy of current NTMA recommendations for type of terrazzo specified.

C. Shop Drawings: Indicate divider strip and control and expansion joint layout, and details of adjacent components. For precast units, detail profile and anchorage requirements.

D. Samples: Submit one sample, 5 inch by 5 inch in size illustrating color, chip size and variation, chip gradation, matrix color, and typical divider strip.

E. Manufacturer's Qualification Statement.

F. Installer's Qualification Statement.

### 1.05 QUALITY ASSURANCE

A. Perform work in accordance with NTMA recommendations as posted at their web site at www.ntma.com.

B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section.
   1. Minimum five years of documented experience.
   2. Associate member firm of the National Terrazzo and Mosaic Association, Inc.

C. Installer Qualifications: Company specializing in performing the type of work specified in this section.
   1. Minimum five years of documented experience.
   2. Approved by matrix manufacturer.

### 1.06 MOCK-UP

A. Construct mock-up of terrazzo illustrating appearance of finished work in each configuration required. Size mock-up to be not less than 1 square foot.

B. Locate at entry into Cafeteria.

C. Mock-up may remain as part of the work.

### 1.07 DELIVERY, STORAGE, AND HANDLING

A. Store terrazzo materials in a dry, secure area.

B. Maintain minimum temperature of 60 degrees F.

C. Keep products away from fire or open flame.

### 1.08 FIELD CONDITIONS

A. Do not install terrazzo when temperature is below 50 degrees F or above 90 degrees F.

B. Maintain temperature within specified range 24 hours before, during, and 72 hours after installation of flooring.

C. Provide ambient lighting level of 50 ft candles, measured at floor surface.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Basis of Design - (EPT-1) Resinous Matrix Terrazzo Flooring/Epoxy-Resin Terrazzo Flooring: Master Terrazzo Technologies, Levittown, Pa.: www.masterterrazzo.com/#sle.

B. Other Acceptable Manufacturers - Resinous Matrix Terrazzo Flooring:
   1. Key Resin Company: www.keyresin.com/#sle.
   2. Sika Corporation; Sikafloor Terrazzo: www.sikafloorusa.com/#sle.
   3. Terrazzco; TERRAZZCO Epoxy Terrazzo System, a brand of Concord Terrazzo Company, Inc: www.terrazzco.com/#sle.
   4. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 EPOXY MATRIX TERRAZZO APPLICATIONS

A. Floors: (to match existing terrazzo for aggregate size and color)
   1. Thickness: 3/8 inch, nominal.
   2. Color(s): Match existing in all areas calling for EPTZ-1.
   3. Aggregate Type: Marble chips.
   4. Aggregate Size: to match existing in each location.

B. Wall Base: (coved base to match existing for size/type/aggregate size and color).
   1. Thickness: Match exisiting adjacent for infill areas.
   2. Style: match existing.
   3. Color(s): Same as adjacent wall base and floor.
   4. Aggregate Type and Size: Same as floors.

### 2.03 MATERIALS

A. Epoxy Matrix Terrazzo: Aggregate and matrix mix applied to substrate, troweled flat, and ground smooth.

B. Matrix: Two component resin and epoxy hardener with mineral filler and color pigment, non-volatile, thermo-setting.

C. Aggregate: Type as indicated; sized in accordance with NTMA aggregate gradation standards; color(s) as indicated, uniform in color.

D. Finishing Grout: Epoxy, color to match terrazzo matrix.

### 2.04 ACCESSORIES

A. Divider Strips: 1/8 inch thick zinc exposed top strip, zinc coated steel concealed bottom strip, with anchoring features.

B. Divider and Control Joint Strip Height: To suit thickness of terrazzo topping, with allowance for grinding.

C. Sealer: Colorless, non-yellowing, penetrating liquid type to completely seal matrix surface; not detrimental to terrazzo components.

D. Primer: and/or waterproofing and crack isolation membrane where required by manufacturer for best adhesion based on existing conditions.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that subfloor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive terrazzo.

B. Cementitious Subfloor Surfaces: Verify that substrates are ready for terrazzo flooring installation by testing for moisture and alkalinity (pH).
   1. Obtain instructions if test results are not within limits recommended by terrazzo flooring manufacturer.
   2. Follow moisture and alkalinity remediation procedures in Section 09 0561.

### 3.02 PREPARATION

A. Clean substrate of foreign matter.

B. Prepare existing terrazzo floors or concrete subfloor below, by mechanically abrading surface in accordance with manufacturer's instructions.

C. Apply primer in accordance with manufacturer's instructions.

### 3.03 INSTALLATION

A. Saw cut existing substrate to install divider and control joint strips.

B. Install control joint strips straight and flat to locations indicated.

C. Install divider strips according to pattern approved on shop drawings.

D. Place terrazzo mix over substrate to thickness level to adjacent terrazzo floor indicated.

### 3.04 FINISHING

A. Finish terrazzo to NTMA requirements.

B. Grind terrazzo surfaces with power disc machine; sequence with coarse to fine grit abrasive, using a wet method or using a dry grinder with vacuum to control dust.

C. Apply grout to fill voids exposed from grinding.

D. Remove grout coat by grinding, using a fine grit abrasive.

### 3.05 TOLERANCES

A. Maximum Variation from adjaceant flat surface: 0 inches .

### 3.06 CLEANING

A. Immediately after terrazzo has dried, apply sealer in accordance with manufacturer's instructions.

B. Polish surfaces in accordance with manufacturer's instructions.

### 3.07 PROTECTION

A. Protect finished terrazzo from damage due to subsequent construction until Date of Substantial Completion.

**END OF SECTION**

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**SECTION 09 6813**
**TILE CARPETING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Carpet tile, fully adhered.

### 1.02 RELATED REQUIREMENTS

A. Section 09 0561 - Common Work Results for Flooring Preparation: Removal of existing floor coverings, cleaning, and preparation.

B. Section 09 0561 - Common Work Results for Flooring Preparation: Concrete slab moisture and alkalinity testing and remediation procedures.

### 1.03 REFERENCE STANDARDS

A. ASTM D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials 2016 (Reapproved 2021).

B. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source 2019a, with Editorial Revision (2020).

C. NFPA 253 - Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source 2023.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.

C. Samples: Submit one carpet tiles illustrating color and pattern design for each carpet color selected.

D. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.

E. Manufacturer's Qualification Statement.

F. Installer's Qualification Statement.

G. Operation and Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning.

H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.
   2. Extra Carpet Tiles: Quantity equal to 5 percent of total installed of each color and pattern installed.

### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing specified carpet tile with minimum ten years documented experience.

B. Installer Qualifications: Company specializing in installing carpet tile with minimum three years documented experience and approved by carpet tile manufacturer.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Tile Carpeting:
   1. Mannington Commercial: www.manningtoncommercial.com#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 MATERIALS

A. Tile Carpeting, Type CPT-1; CPT-2: Tufted, manufactured in one color dye lot.

1. Product: Open Air Collection- CPT-1: "Open Air" 404- #106750- Nickel (Field); CPT-2: "Open Air -Transitions" 404- Color: Nickel/Rust #107118 (Accent). manufactured by Interface, Inc..
2. Tile Size: 19.69 in x 19.69 in, nominal.
3. Face Fiber: 100% Recycled Content Nylon.
4. Total Recycled Content: 74.57%.
5. Product construction: Tufted Textured Loop.
6. Soil/Stain protection: Protekt2.
7. Dye Method: Solutiuon.
8. Pile Thickness: 0.10 inch (2.50 mm).
9. Color: CPT-1: Open Air 404-Color: Nickel-#106750 (Field); CPT-2: "Open Air Transitions" 404- Color: Nickel/Rust-#107118 (Accent). See Finish plan for carpet type location.
10. Primary Backing Type: GlasBac.
11. Adhesive: As recommended by manufacturer.
12. Installation method: Non-directional. For accent installation- keep rust color for each tile toward the wall, mitre the tile in the corners to make a 90 degree turn with color conituing against the wall.
13. Recycled Content- Total:
14. Testing:
    a. Dimensional Stability (Aachen Test): Passes.
    b. Electrostatic Propensity (AATCC 134): Less than 3.0 kV
    c. Flooring Radiant Panel (ASTM E648): Passes- Class 1; less than 0.45 watts/cm squared.
    d. Smoke Density (ASTM E662): Passes- less than 450.
    e. Methenamine Pill Test (ASTM D2859): Passes.
    f. Hexapod (ASTM D5252) TARR: 3.5.
15. Warranty: 15 year Standard Carpet warranty.

### 2.03 ACCESSORIES

A. Subfloor Filler: type recommended by flooring material manufacturer.

B. Edge Strips: Vinyl- color to match wall base.

C. Adhesives: As recommended by carpet manufacturer.

D. Carpet Tile Adhesive: Recommended by carpet tile manufacturer; releasable type.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that subfloor surfaces are smooth and flat within tolerances specified for that type of work and are ready to receive carpet tile.

B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive carpet tile.

C. Cementitious Subfloor Surfaces: Verify that substrates are ready for flooring installation by testing for moisture and alkalinity (pH).
   1. Test in accordance with Section 09 0561.
   2. Obtain instructions if test results are not within limits recommended by flooring material manufacturer and adhesive materials manufacturer.

### 3.02 PREPARATION

A. Prepare floor substrates for installation of flooring in accordance with Section 09 0561.

### 3.03 INSTALLATION

A. Starting installation constitutes acceptance of subfloor conditions.

B. Install carpet tile in accordance with manufacturer's instructions.

C. Blend carpet from different cartons to ensure minimal variation in color match.

D. Cut carpet tile clean. Fit carpet tight to intersection with vertical surfaces without gaps.

E. Lay carpet tile in non-directional pattern, with pile direction parallel to next unit, set parallel to building lines.

F. Locate change of flooring material types between rooms under door centerline.

G. Trim carpet tile neatly at walls and around interruptions.

H. Complete installation of edge strips, concealing exposed edges.

**3.04 CLEANING**

A. Remove excess adhesive without damage, from floor, base, and wall surfaces.

B. Clean and vacuum carpet surfaces.

**END OF SECTION**

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**SECTION 09 7200**
**WALL COVERINGS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Surface preparation and prime painting.

B. Felted Acoustical Wall Covering.

C. Impact-Resistant Vinyl Wall Covering

### 1.02 RELATED REQUIREMENTS

A. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions.

B. Section 09 9123 - Interior Painting: Preparation and priming of substrate surfaces.

### 1.03 REFERENCE STANDARDS

A. ASTM D1308 - Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Coating Systems 2020.

B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

C. ASTM F793/F793M - Standard Classification of Wall Coverings by Use Characteristics 2020.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on wall covering and adhesive.

C. Shop Drawings: Indicate wall elevations with seaming layout.

D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.
   2. Extra Wall Covering Materials: 25 linear feet of each color and pattern of wall covering; store where directed.
   3. Package and label each roll by manufacturer, color and pattern, and destination room number.

### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.

B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

### 1.06 DELIVERY, STORAGE, AND HANDLING

A. Inspect roll materials at arrival on site, to verify acceptability.

B. Protect packaged adhesive from temperature cycling and cold temperatures.

C. Do not store roll goods on end.

### 1.07 FIELD CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the adhesive or wall covering product manufacturer.

B. Maintain these conditions 24 hours before, during, and after installation of adhesive and wall covering.

C. Provide lighting level of 80 ft candles measured mid-height at substrate surfaces.

## PART 2 PRODUCTS

### 2.01 WALL COVERINGS

A. General Requirements:
   1. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E84.
   2. Chemical and Stain Resistance: No visible staining or discoloration and no damage to surface texture when tested in accordance with ASTM D1308.

B. Wall Covering - Type -AWC-1: Felted Acoustical.
   1. Basis of Design: Wolf Gordon Wallcoverings- "Softrack". www.wolfgordon.com/#sle.
      a. Total Weight: 24 oz/ lin.yd.
      b. Roll Width: 54 inches.
      c. Backing: fabric.
      d. Fire Rating: Class A, as per ASTM E84 (adhered).
      e. Pattern Match: Reverse hang- random match
      f. Sustainability: Contains 90% post-consumer recycled content.
      g. Free of PVC, Phthalates, HPD Available.
      h. Cleaning: a diluted bleach solution can be used.
      i. Color: Flagstone.

C. Impact-Resistant Wall Covering- Type- VWC-1: Fabric- backed vinyl roll stock.
   1. Basis of Design: Wolf Gordon Wallcoverings- "Rampart Wall Protection- Shift" #SFT 5011- color: Coral. www.wolfgordon.com/#sle.
      a. Content: 100% Vinyl.
      b. Finish: Surcoat stain and abraision resistant treatment.
      c. Comply with ASTM F793/F793M, Category V, Type III.
      d. Total Weight: 35.0 oz. per linear yard.
      e. Roll width: 52 inches.
      f. Backing: Dense Cotton.
      g. Fire Rating: Class A as per ASTM E84 (Adhered).
      h. Pattern Match: Reverse hang, Random match.
      i. Sustainability: Low-emitting Passes CAI 01350 standard (LEED EQ 4.2). Printed with solvent-free inks.
      j. Cleaning: a diluted bleach solution can be used.

D. Termination Trim: Trim at top and bottom edge of wallcovering if shown as a wainscot-height.
   1. Basis of Design: Fry Reglet #WCTBT125-217.
   2. Size: 1 3/8" x 5/16".
   3. Locations: Use at base and top cap.
   4. Color: Buffed Bright Stainless Steel.

E. Substrate Filler: As recommended by adhesive and wall covering manufacturers; compatible with substrate.

F. Substrate Primer and Sealer: Alkyd enamel type.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that substrate surfaces are prime painted and ready to receive work, and comply with requirements of wall covering manufacturer.

B. Verify flatness tolerance of surfaces does not vary more than 1/8 inch in 10 feet nor vary at a rate greater than 1/16 inch/ft.

### 3.02 PREPARATION

A. Fill cracks in substrate and smooth irregularities with filler; sand smooth.

B. Wash impervious surfaces with tetra-sodium phosphate, rinse and neutralize; wipe dry.

C. Surface Appurtenances: Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.

D. Surfaces: Correct defects and clean surfaces that affect work of this section. Remove existing coatings that exhibit loose surface defects.

E. Apply one coat of primer sealer to substrate surfaces. Allow to dry. Lightly sand smooth.

F. Vacuum clean surfaces free of loose particles.

**3.03 INSTALLATION**

A. Apply adhesive and wall covering in accordance with manufacturer's instructions.

B. Apply adhesive to wall surface immediately prior to application of wall covering.

C. Apply wall covering smooth, without wrinkles, gaps or overlaps. Eliminate air pockets and ensure full bond to substrate surface.

D. Butt edges tightly.

E. Remove excess adhesive while wet from seam before proceeding to next wall covering sheet. Wipe clean with dry cloth.

**3.04 CLEANING**

A. Clean wall coverings of excess adhesive, dust, dirt, and other contaminants.

B. Reinstall wall plates and accessories removed prior to work of this section.

**3.05 PROTECTION**

A. Do not permit construction activities at or near finished wall covering areas.

**END OF SECTION**

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**SECTION 09 7800**
**INTERIOR WALL PANELING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. PVC Wall Paneling.

B. Decorative Metal Laminate Cladding.

C. Accessories.

### 1.02 REFERENCE STANDARDS

A. ASTM D256 - Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics 2023, with Editorial Revision.

B. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber 2021.

C. ASTM D5319 - Standard Specification for Glass-Fiber Reinforced Polyester Wall and Ceiling Panels 2022.

D. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

### 1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Submit manufacturer's descriptive literature for each specified product. Include anchorage devices specific to project substrate types.

C. Shop Drawings: Submit elevations for each application and location. Indicate details of joints and attachments.

D. Samples: Submit one samples 12 by 12 inches in size, indicating finish, surface design, and color for each type of panels; PVC-1 and PVC-2.

E. Manufacturer's Instructions: Provide manufacturer's installation instructions.

F. Installer's qualification statement.

G. Warranty Documentation: Manufacturer warranty; ensure that forms have been completed in Owner's name and registered with manufacturer.

H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. Extra Panels: Quantity equal to 5 percent of total installed.

### 1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least five years of documented experience.

B. Installer Qualifications: Company specializing in installing work of the type specified in this section, and with at least three years of documented experience.

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to project site in manufacturer's original packaging, marked with manufacturer's product identification.

B. Store panels flat, indoors, on a clean, dry surface. Remove packaging and allow panels to acclimate to room temperature for 48 hours prior to installation.

### 1.06 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Extended Correction Period: Correct defective work within a 2-year period commencing on the Date of Substantial Completion.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Decorative PVC Wall Paneling: Basis of Design: Altro Whiterock (PVC) Wall Paneling.
   1. Altro Decorative Wall Cladding: www.altro.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

B. Metallic Laminate Sheet: Basis of Design: Wilsonart Decorative Metal.
   1. Wilsonart Engineered Surfaces: www.wilsonart.com/#sle.

### 2.02 REGULATORY REQUIREMENTS

A. Surface Burning Classification: Provide wall paneling assemblies meeting Class A when tested in accordance with ASTM E84.

### 2.03 DECORATIVE PVC WALL PANELING

A. Type: High- Qualtiy Graphic-printed pattern images with manufacturer's standard scratch-resistant, UV-resistant protective coating.
   1. Panel Size: 4 by 8 feet.
   2. Panel Thickness: 0.100 inch (2.5mm).
   3. Pattern:
      a. PVC-1: Wood/ Warm Woodgrain/9904- #WDS259904- 8' panel.
   4. Product identification: As indicated on Drawings.
   5. Material: 100% pure vinyl, extruded, semi-rigid PVCu sheet containing no plasiticizers or fillers. Hard coat protective layer is added to prevent damage to the graphics.
   6. Surface Burning Characteristics Compliance: meets requirements of ASTM E84.
   7. Impact Resistance per ASTM D5420: 160 in-lbs. (18.1 N-m).

B. Accessories:
   1. Altro Weld Rod- color to match- determined by architect from manufacturer's selection.
      a. Edge Trim: Manufacturer's standard shape.
   2. Products:
      a. Eagle Mouldings, Inc; Aluminum J-Caps and Channels: www.eagle-aluminum.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.
   3. Adhesive: Type recommended by panel manufacturer.
   4. Sealant: Type recommended by paneling manufacturer; clear.

### 2.04 DECORATIVE METAL VERTICAL CLADDING

A. Type: Metallic-Finish Laminate Sheet (LAM): Colore metallic decorative layer over kraft paper core sheets impregnated with phenolic resin, Type 408.
   1. Sheet thickness: 0.032 inch.
   2. Sheet weight: 0.27 lbs. per sq. ft.
   3. Surface Burning Characteristics: Class A-1 rated.
   4. Color: Crystal Sttel # S6501-00-414..

B. Accessory Materials:
   1. Bonding Adhesive as recommended by manufacturer based on location and type of installation.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that substrate surfaces for adhered items are clean and smooth.

1. Test painted or wall covering surfaces for adhesion in inconspicuous area, as recommended by manufacturer.

B. Start of installation constitutes acceptance of project conditions.

**3.02 INSTALLATION**

A. Install panels in accordance with manufacturer's instructions.

B. For all locations shown- install with grain vertical to floor.

C. Apply adhesive to back side of panel using trowel recommended by adhesive manufacturer.

D. Apply panels to wall with vertical joints plumb and horizontal joints level and pattern aligned with adjoining panels.

E. Using a roller, apply pressure to panel face to ensure proper adhesion between surfaces.

F. Install panels with manufacturer's recommended gaps for panel field and corner joints.

G. Install trim with adhesive.

H. Seal joints at wall base and between panels with approved sealant to prevent moisture intrusion.

I. Remove excess sealant after paneling is installed and prior to curing.

**3.03 ADJUSTING**

A. Replace paneling installed out of plumb and/or not aligned with adjacent panels or construction.

**3.04 CLEANING**

A. Clean panel faces using cleaning agents and methods recommended by manufacturer to remove soiling.

**3.05 PROTECTION**

A. Protect installed interior wall paneling from subsequent construction operations.

**END OF SECTION**

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**SECTION 09 8430**
**SOUND-ABSORBING WALL AND CEILING UNITS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Fabric-wrapped sound-absorbing panels.

B. Cementitious Wood Fiber plank sound-absorbing ceiling baffles.

C. Mounting accessories.

### 1.02 RELATED REQUIREMENTS

A. Section 09 5100 - Acoustical Ceilings: Ceiling suspension system.

B. Section 09 9123 - Interior Painting.

### 1.03 REFERENCE STANDARDS

A. ASTM C423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method 2023.

B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

C. ASTM E795 - Standard Practices for Mounting Test Specimens During Sound Absorption Tests 2023.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Manufacturer's printed data sheets for products specified.

C. Shop Drawings: Fabrication and installation details, panel layout, fabric orientation, and wood grain orientation.

D. Verification Samples: Fabricated samples of each type of panel specified; 12 by 12 inch, showing construction, edge details, and fabric covering.

E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.
   2. Extra Panels: Quantity equal to 5 percent of total installed, but not less than one of each type.

### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with at least three years of documented experience.

### 1.06 DELIVERY, STORAGE, AND HANDLING

A. Protect acoustical units from moisture during shipment, storage, and handling. Deliver in factory-wrapped bundles; do not open bundles until units are needed for installation.

B. Store units flat, in dry, well-ventilated space; do not stand on end.

C. Protect edges from damage.

## PART 2 PRODUCTS

### 2.01 FABRIC-COVERED SOUND-ABSORBING UNITS

A. Manufacturers:
   1. Conwed Designscape/Wall Technology: www.conweddesignscape.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

B. General:

1. Prefinished, factory assembled fabric-covered panels.
2. Surface Burning Characteristics: Flame spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.

C. Type AWP-1: Direct Attach, Fabric-Covered Acoustical Panels for Walls:
1. Series: "Respond".
2. Panel Core: Manufacturer's standard rigid or semi-rigid fiberglass core.
3. Sound Absorption: Noise Reduction Coefficient (NRC) or Sound Absorption Average (SAA) of 1.05 when tested in accordance with ASTM C423 for Type A mounting, per ASTM E795.
4. Panel Size: AWP-1- 24" w x 48".
5. Panel Thickness: 2 inches.
6. Edges: Perimeter edges reinforced by a formulated resin hardener.
7. Corners: Square.
8. Fabric: Guilford of Maine- "Palette" (Class A) series. 100% polyester. Acoustic transparency-90%.
9. Color: As selected by Architect from manufacturer's full range.
10. Mounting Method: Spline-mounted, concealed.

D. Type AWP-2: Low-Frequency Tuner, Fabric-Covered Acoustical Panels:
1. Series: Specialized.
2. Panel Core: Manufacturerls standard rigid or semi-rigid fibergalss core.
3. Panel size: 24" x 24".
4. Panel Thickness: 2 inches.
5. NRC Rating= 0.30.
6. Edges: Perimeter edges reinforce by a formulated resin hardener.
7. Corners: Square.
8. Fabric: Guilford of Maine- "Palette" (Class A) series. 100% polyester. Acoustic Transparency- 90%.
9. Color: Sandalwood.
10. Mounting Method: Spline mounted, concealed.

E. Type- AWP-3, AWP-4: Barrel Diffuser; Fabric covered acoustical panels.
1. Series: Specialized.
2. Panel Core: Manufacturer's standard molded fire-resistant plastic in barrel shape.
3. Panel Size: AWP-3: 48" x 48"; AWP-4: 24" x 48".
4. Panel Thickness: Varies.
5. NRC Rating= 0.10.
6. Edges: Straight for walls.
7. Corners: Square.
8. Fabric: Guilford of Maine- FR701 (Class A) series. 100% post-consumer recycled polyester.
9. Color: Quartz #380.

## 2.02 WOOD FIBER SOUND-ABSORBING UNITS

A. Manufacturers:
1. Basis of Design: Tectum Shapes, mfg. by Armstrong World Industries, Inc; www.armstrongceilings.com/commercial/#sle.:

B. Wood Fiber Acoustical Panels for Walls (AWP-5, 6 and 7)- Cementitious wood fiber.
1. Size:
a. AWP-5: 24" diameter.
b. AWP-6: 12" diameter.

c. AWP-7: Custom Shapes- See locations on sheet A203- Details # 2 and 6- Middle School Band and Chorus Rooms #167 and 168.

2. Thickness: 2 inches.
3. Noise Reduction Coefficient (NRC): 0.80 to 0.90 when tested in accordance with ASTM C423 for Type A mounting, per ASTM E795.
4. Panel Edge: Square.
5. Surface Pattern: Coarse.
6. Surface Burning characteristics: Flame Spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
7. Surface Color: To be selected by Architect from manufacturer's custom line.
8. Mounting: Use fixing clips to attach to metal hat channels anchored to wall substrate and ceiling substrate.

**2.03 FABRICATION**

A. Fabric Wrapped, General: Fabricate panels to sizes and configurations as indicated, with fabric facing installed without sagging, wrinkles, blisters, or visible seams.
   1. Where radiused or mitered corners are indicated, install fabric to avoid seams or gathering of material.

B. Tolerances: Fabricate to finished tolerance of plus or minus 1/16 inch for thickness, overall length and width, and squareness from corner to corner.

**2.04 ACCESSORIES**

A. Spline-Mounting Accessories: Manufacturer's standard concealed connecting splines of extruded aluminum designed for screw attachment to walls, with coordinating moldings and trim for interior and exterior corners and miscellaneous conditions.
   1. Color of Exposed Trim: As selected from manufacturer's standards.

B. Fixing Clips: Manufacturers standard for application as indicated.

C. Furring Strips: Metal hat channel.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Examine substrates for conditions detrimental to installation of acoustical units. Proceed with installation only after unsatisfactory conditions have been corrected.

**3.02 INSTALLATION**

A. Install acoustical units in locations as indicated, following manufacturer's installation instructions.

B. Install mounting accessories and supports in accordance with shop drawings.

C. Furring-Mounted Cementitious Wood Fiber Panels:
   1. Install furring strip along meeting edges of adjacent panels to ensure they are attached to same furring strip along abutted edge; 24 inches on center, maximum.
   2. Install acoustic insulation between furring as indicated on drawings.
   3. Adhere first panel from edge to furring strip; attach subsequent panels using fasteners.

D. Install acoustical units to construction tolerances of plus or minus 1/16 inch for the following:
   1. Plumb and level.
   2. Flatness.

**3.03 CLEANING**

A. Clean sound-absorptive panels upon completion of installation from dust and other foreign materials, following manufacturer's instructions.

**3.04 PROTECTION**

A. Provide protection of installed acoustical panels until Date of Substantial Completion.

B. Replace panels that cannot be cleaned and repaired to satisfaction of the Architect.

**END OF SECTION**

**SECTION 09 9000**
**PAINTING AND COATING - K-12 EDUCATION FACILITY GUIDE SPECIFICATION - SHERWIN-WILLIAMS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Surface preparation.

B. Interior painting and coating systems.

C. Exterior painting and coating systems.
   1. Surface preparation.
   2. Interior painting and coating systems.
   3. Exterior painting and coating systems.

D. Scope:
   1. Finish surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
      a. Exterior:
         1) Concrete: cast-in-place concrete.
         2) Drywall: Gypsum board and exterior drywall.
      b. Interior:
         1) Concrete, Walls and Ceilings: Cast-in-place concrete, precast concrete, unglazed brick, fiber cement board, tilt-up, and plaster.
         2) Concrete Masonry Units: Concrete, split face, scored, smooth, high density, low density, and fluted.
         3) Metal, Galvanized: Ceilings and ductwork.
         4) Metal: Structural steel columns, joists, trusses, beams, miscellaneous and ornamental iron, structural iron, and other ferrous metal.
         5) Wood: Locker Room bench.
         6) Drywall: Walls, ceilings, gypsum board, and similar items.
         7) Concrete: Floors, non-vehicular.
   2. Do not paint or finish the following:
      a. Items fully factory finished unless specifically noted..
      b. Fire rating labels, equipment serial numbers and capacity.
      c. Aluminum and Stainless Steel items not called for paint.

### 1.02 REFERENCE

A. 40 CFR 59, Subpart D- National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency.

B. SSPC V1 (PM1)- Good Painting Practice: Painting Manual, Volume 1.

C. SSPCV2 (PM2)- Systems and Specifications: Steel Structures Painting Manual, Volume 2.

D. SSPC-PA 1- Shop, Field, and Maintenance Painting of Steel.

E. SSPC-Paint 15- Steel Joist Shop Primer/Metal Building Primer.

F. SSPC-Paint 20- Zinc-Rich Primers (Type1, "Inorganic, and Type II, "Organic".

G. SSPC-SP 1- Solvent Cleaning.

H. SSPC-SP 2- Hand Tool Cleaning.

I. SSPC-SP 3- Power Tool Cleaning.

J. SSPC-SP 13- Surface Preparation of Concrete.

## 1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide complete list of products to be used, with the following information for each:
   1. Product characteristics.
   2. Surface preparation instructions and recommendations.
   3. Primer requirements and finish specification.
   4. Storage and handling requirements and recommendations.
   5. Application methods.
   6. Clean-up information.
   7. Storage and handling requirements and recommendations.
   8. Application methods.
   9. Clean-up information.

# PART 2 PRODUCTS

## 2.01 MANUFACTURERS

A. Basis of Design Products: Subject to compliance with requirements, provide Sherwin-Williams Company (The) products indicated; www.sherwin-williams.com/#sle.

B. Comparable Products: Products of approve manufacturers wil lbe considered in accordance with 01 6000- Product Requirements, and the following:
   1. Products that meet or exceed performance and physical characteristics of basis of design products.
   2. Basis of Design Products: Subject to compliance with requirements, provide Sherwin-Williams Company (The) products indicated; www.sherwin-williams.com/#sle.

## 2.02 PAINTINGS AND COATINGS

A. General:
   1. Provide factory-mixed coatings unless otherwise indicated.
   2. Do not reduce, thin, or dilute coatings or add materials to coatings unless specifically indicated in manufacturer's instructions.
   3. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials and clean-up materials as required for final completion of painted surfaces.

B. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.

## 2.03 PAINT SYSTEMS - EXTERIOR

A. Concrete: precast or poured-in-place cement.
   1. Latex Systems:
      a. Flat Finish:
         1) 1st Coat: Sherwin-Williams Loxon Concrete and Masonry Primer Sealer LX02W50: www.sherwin-williams.com/#sle.
         2) 2nd and 3rd Coat: Sherwin-Williams A-100 Exterior Latex Flat, A6 Series: www.sherwin-williams.com/#sle.

## 2.04 PAINT SYSTEMS - INTERIOR

A. Concrete, Walls and Ceilings: Poured concrete, precast concrete, unglazed brick, cement board, tilt-up, cast-in-place concrete, and plaster.
   1. Latex Systems:
      a. Eg-Shel Finish High Performance (HP):

1) 1st Coat: Sherwin-Williams Loxon Concrete and Masonry Primer Sealer, LX02W50 Series: www.sherwin-williams.com/#sle.
2) 2nd and 3rd Coat: Sherwin-Williams ProMar 200 HP Zero VOC Eg-Shel, B20-1950 Series: www.sherwin-williams.com/#sle.

B. Masonry CMU: Concrete, split face, scored, smooth, high density, low density, and fluted.
1. Latex Systems:
a. Eg-Shel/Satin Finish High Performance (HP):
1) 1st Coat: Sherwin-Williams PrepRite Block Filler, B25W25: www.sherwin-williams.com/#sle.
2) 2nd and 3rd Coat: Sherwin-Williams ProMar 200 HP Zero VOC Eg-Shel, B20-1950 Series: www.sherwin-williams.com/#sle.

C. Metal, Galvanized: Ceilings and ductwork.
1. Multi-Surface Acrylic Coating System:
a. Gloss Finish High Performance:
1) 1st and 2nd Coat: Sherwin-Williams Pro Industrial Multi-Surface Acrylic, B66-1500 Series: www.sherwin-williams.com/#sle.
2. Dryfall Waterborne Topcoats:
a. Eg-Shel Finish:
1) 1st and 2nd Coat: Sherwin-Williams Pro Industrial Waterborne Acrylic Dryfall, B42-82 Series: www.sherwin-williams.com/#sle.

D. Metal: Structural steel columns, joists, trusses, beams, miscellaneous and ornamental iron, structural iron, and ferrous metal.
1. Latex Systems:
2. Alkyd Systems, Water-Based:
a. Low Sheen Finish:
1) 1st Coat: Sherwin-Williams Pro Industrial Pro-Cryl Universal Primer, B66-1310 Series: www.sherwin-williams.com/#sle.
2) 2nd and 3rd Coat: Sherwin-Williams Pro Industrial Water Based Alkyd Urethane Enamel Low Sheen, B53-1250 Series: www.sherwin-williams.com/#sle.

E. Wood: Locker Room benches.
1. Alkyd Systems, Water-Based:
2. Stain and Varnish System:
a. Satin Finish:
1) 1st Coat: Sherwin-Williams Minwax Performance Series Tintable Wood Stain 250 VOC: www.sherwin-williams.com/#sle.
2) 2nd and 3rd Coat: Sherwin-Williams Minwax Waterbased Oil-Modified Polyurethane: www.sherwin-williams.com/#sle.

F. Drywall: Walls, ceilings, gypsum board, and similar items.
1. Latex Systems:
a. Eg-Shel Finish High Performance (HP):
1) 1st Coat: Sherwin-Williams ProMar 200 Zero VOC Interior Latex Primer, B28W2600: www.sherwin-williams.com/#sle.
2) 2nd and 3rd Coat: Sherwin-Williams ProMar 200 HP Zero VOC Eg-Shel, B20-1950 Series: www.sherwin-williams.com/#sle.

G. Concrete: (SC) Floors, non-vehicular.
1. Sealer:
a. Clear Concrete Sealer:

1) 1st and 2nd Coat: Basis of Design: Prosoco Consolideck LS Concrete Sealer and Densifier.
2) Follow manufacturers recommendation for preparation and installation based on concrete type.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

C. Test shop-applied primer for compatibility with subsequent cover materials.

### 3.02 PREPARATION

A. Clean surfaces thoroughly and correct defects prior to application.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Remove or repair existing coatings that exhibit surface defects and are detrimental to paint finish.

D. Remove or mask surface appurtenances, including electrical face plates, hardware, light fixture trim, escutcheons and other fittings prior to preparing for paint finishes.

E. Seal surfaces that might cause bleed-through or staining of topcoat.

F. Concrete:
1. Remove release agents, curing compounds, efflourescence, and chalk.
2. Fill bug holes, air pockets, and other voids with cement patching compound.
3. Remove oil and grease from surfaces.
4. Remove stains caused by weathering or corroding of metals.
5. Prepare concrete in accordance to SSPC-SP 13.

G. Masonry:
1. Remove efflouresence and chalk.
2. Remove dirt, scale, loose mortar and foreign material.

H. Gypsum Board: Fill minor defects with filler compound; sand smooth and remove dust prior to painting.

I. Plaster: Fill hairline cracks, small holes and imperfections with patching plaster. Make smooth and flush with adjacent surfaces. Treat textured soft, porous, or powdery surfaces in accordance with manufacturer's instructions.

J. Galvanized Surfaces:
1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
2. Prepare surface according to SSPC-SP 2.

K. Ferrous Metal:
1. Corroded Ferous Metal Surfaces: Prepare using SSPC-SP 2 or SSPC-SP 3, followed by solvent cleaning in accordance with SSPC-SP 1; if required.
2. Shop-Primed Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Prime bare steel surfaces.
3. REmove rust, loose mill scale and other foreign substances using mentods recommended by paint manufacturer and SSPC-SP 10. Protect from corrosion until coated.

4. Shop Primed Steel: Sand and scrape to remove loose finish paint, primer and rust. Feather edges to make touch-up paint patches as inconspicuous as possible. Clean primed and reprimed surfaces as recommended by finish paint manufacturer.
5. Metal Doors: Prime metal door top, bottom and edges.

**3.03 APPLICATION**

A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

B. Remove unfinished louvers, grilles, covers and access panels on mechanical and electrical components and paint separately.

C. Apply products in accordance with manufacturer's written instructions.

D. Apply coatings at spread rate required to achieve manufacturer's recommended dry film thickness.

E. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.

F. Do not apply finishes to damp or wet surfaces. Allow applied coats to dry thoroughly before next coat is applied.

G. Apply each coat in uniform appearance.

H. Apply one coat of flat balck paint to interior duct dampers where dampers are visible through the grilles and louvers.

I. Apply one coat of flat balck paint to interior ductwork surfaces where interior ductwork is visible through grilles

J. Paint all exposed conduit and ductwork occuring in finished areas to match background surface unless other as directed by Architect.

K. Regardless of number of coats specified, apply additional coats until complete hide is acheived.

**3.04 PRIMING**

A. Apply primer to all surfaces unless specifically not required by coating manufacturer. Apply in accordance with coating manufacturer's instructions.

B. Primers specified in painting schedules may be omitted on items factory primed or factory finished items if acceptable to top coat manufacturer.

**3.05 CLEANING**

A. Collect waste material that could constitute a fire hazard, place in closed metal containers and remove daily from site.

B. Clean surfaces immediately of overspray, splatter, and excess material.

C. After coating has cured, clean and replace finish hardware, fixtures, and fittings previously removed.

**3.06 PROTECTION**

A. Protect finished coating from damage until completion of project.

B. Touch-up damaged finishes after Substantial Completion.
1. Primers specified in painting schedules may be omitted on items factory primed or factory finished items if acceptable to top coat manufacturers.

**END OF SECTION**

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**SECTION 10 1100**
**VISUAL DISPLAY UNITS**

## PART 1 GENERAL

### 1.01 REFERENCE STANDARDS

A. ANSI A208.1 - American National Standard for Particleboard 2022.

B. ASTM A424/A424M - Standard Specification for Steel, Sheet, for Porcelain Enameling 2018.

C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

D. ASTM F793/F793M - Standard Classification of Wall Coverings by Use Characteristics 2020.

### 1.02 SECTION INCLUDES

A. Porcelain Enamel Steel Markerboards.

B. Tackboards.

C. Exhibit Rail.

### 1.03 RELATAED REQUIREMENTS

A. Section 09 2116- Gypsum Board Assemblies: Concealed supports in metal stud walls.

### 1.04 REFERENCE STANDARDS

A. ANSI A208.1- american National Standard for Particleboard 2016.

B. ASTM A424/A424M- Standard Specification for Steel, Sheet, for Porcelain Enameling 2018.

C. ASTM E84- Standard Test Method for Surface Burning Characteristics of Building Materials 2021a.

D. ASTM F793/F793M- Standard Classification of Wall Coverings by Use Charachteristics 2020.

### 1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide manufacturer's data on porcelain enamel steel markerboard, glass markerboard, tackboard, tackboard surface covering, trim, and accessories.

C. Shop Drawings: Indicate wall elevations, dimensions, joint locations , special anchor details.

### 1.06 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

B. Provide five year warranty for chalkboard and markerboard to include warranty against discoloration due to cleaning, crazing or cracking, and staining.

## PART 2 PRODUCTS

### 2.01 VISUAL DISPLAY UNITS

A. Porcelain Enamel Steel Markerboards:
   1. Manufacturer: Basis of Design: Claridge LCS Series 8 with tackable map rail and flat marker tray.
   2. Color: White.
   3. Core: Particleboard, manufacturer's standard thickness, laminated to face sheet.
   4. Backing: Aluminum foil, laminated to core.
   5. Size: As indicated by Types below.
   6. Frame: Extruded aluminum , with concealed fasteners.
   7. Frame Finish: Anodized, natural.
   8. Accessories: Provide marker tray and map rail.

B. Tackboards: Fine-grained, homogeneous natural cork.

1. Manufacturer: Basis of Design: Claridge Edge Wrapped Tackboard with Fabricork.
2. Fabric: Vinyl-coated fabric.
3. Color: As selected from manufacturer's full range.
4. Backing: Hardboard, 1/4 inch thick, laminated to tack surface.
5. Surface Burning Characteristics: Flame spread index of 25, maximum, and smoke developed index of 450, maximum, when tested in accordance with ASTM E84.
6. Size/Type: As indicated on drawings.
7. Frame Finish: Anodized, natural.

C. Exhibit Rail:
1. Basis of Design: Claridge (EDR) Exhibit Rail; 3" high with Fabricork tackable insert with standard trim colors.

**2.02 MATERIALS**

A. Porcelain Enameled Steel Sheet: ASTM A424/A424M, Type I, Commercial Steel, with fired-on vitreous finish.

B. Vinyl-Coated Fabric: ASTM F793 Category VI.

C. Particleboard: ANSI A208.1; wood chips, set with waterproof resin binder, sanded faces.

D. Foil Backing: Aluminum foil sheet, 0.005 inch thick.

**2.03 ACCESSORIES**

A. Map Rail: Extruded aluminum, manufacturer's standard profile, with cork insert and runners for accessories; 1 inch wide overall , full width of frame.

B. Flag Holders: Cast aluminum bored to receive 1 inch diameter flag staff, bracketed to fit top rail of board.

C. Marker Tray: Aluminum, manufacturer's standard profile, one piece full length of markerboard, molded ends, concealed fasteners, same finish as frame.

D. Mounting Brackets: Concealed.

**PART 3 EXECUTION**

**3.01 INSTALLATION**

A. Install boards in accordance with manufacturer's instructions.

B. Secure units level and plumb.

**3.02 CLEANING**

A. Clean board surfaces in accordance with manufacturer's instrucitons.

B. Cover with protective cover taped to frame until date of substantial completion.

**3.03 DISPLAY BOARD TYPES**

A. Type- A: 72"w x 48"h- Dry-Erase White Board.

B. Type- B: 48"w x 48"h- Dry-Erase White Board.

C. Type -C: 72"w x 48"h- Dry-Erase Whiteboard with Staff lines.

D. Type -D: 36"w x 48"h- Tack Board.

E. Type- E: Exhibit Rail. Length as noted on drawings.

**END OF SECTION**

**SECTION 10 1400**
**SIGNAGE**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Room and door signs.

B. Interior directional and informational signs.

C. Vinyl Wall Graphics at Band And Chorus.

### 1.02 RELATED REQUIREMENTS

### 1.03 REFERENCE STANDARDS

A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines current edition.

B. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

C. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.

C. Signage Schedule: Provide information sufficient to completely define each sign for fabrication, including room number, room name, other text to be applied, sign and letter sizes, fonts, and colors.
   1. When room numbers to appear on signs differ from those on drawings, include the drawing room number on schedule.
   2. When content of signs is indicated to be determined later, request such information from Owner through Architect at least 2 months prior to start of fabrication; upon request, submit preliminary schedule.
   3. Submit for approval by Owner through Architect prior to fabrication.

D. Samples: Submit two samples of each type of sign, of size similar to that required for project, illustrating sign style, font, and method of attachment.

E. Selection Samples: Where colors are not specified, submit two sets of color selection charts or chips.

F. Manufacturer's Installation Instructions: Include installation templates and attachment devices.

G. Manufacturer's Qualification Statement.

H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 6000 - Product Requirements, for additional provisions.

### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

### 1.06 DELIVERY, STORAGE, AND HANDLING

A. Package signs as required to prevent damage before installation.

B. Package room and door signs in sequential order of installation, labeled by floor or building.

C. Store tape adhesive at normal room temperature.

### 1.07 FIELD CONDITIONS

A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.

B. Maintain this minimum temperature during and after installation of signs.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Flat Signs:
   1. Basis of Design: Mohawk Sign Systems, Inc: www.mohawksign.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

B. Vinyl Wall Graphics: Oracal 751C- High Performance Cast Film mfg. by Orafol Americas: www.orafol.com

### 2.02 SIGNAGE APPLICATIONS- FLAT SIGNS

A. Accessibility Compliance: Signs are required to comply with ADA Standards and ICC A117.1 2017, unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.

B. Room and Door Signs: (Type 1, Type 2, Type 3, Type 4 and Type 9) Provide a sign for every doorway, in areas of renovation, including corridors, lobbies, and similar open areas.
   1. Sign Type: Flat signs with engraved panel media as specified.
   2. Provide "tactile" signage, with letters raised minimum 1/32 inch and Grade II braille.
   3. Character Height: 1 inch.
   4. Sign Height: 2 inches, unless otherwise indicated.
   5. Classroom Signs: Dimensions to match existing adjacent classrooms.
   6. Office Doors: Identify with room numbers to be determined later, not the numbers indicated on drawings; in addition, provide "window" section for replaceable occupant name.
   7. Conference and Meeting Rooms: Identify with room numbers to be determined later, not the numbers indicated on drawings; in addition, provide "window" section with sliding "In Use/Vacant" indicator.
   8. Service Rooms: Identify with room names and numbers to be determined later, not those indicated on drawings.
   9. Rest Rooms: Identify with pictograms, the name "GENDER NEUTRAL", room numbers to be determined later, and braille. Dimensions: Minimum 8"x8" with New York State 4" accessibility symbol, gender symbol and verbal desceiption. Grade 2 braille to follow directly below the text.
      a. Sign Dimensions: Minimum 8"x8" with New York State 4" accessibility symbol, gender symbol and verbal description. Grade 2 braille to follow directly below the text.
         1) Gender Neutral Single Occupancy Toilet Room Signage: provide gender neutral single-occupancy toilet room signage in accordance with new York State Education Law Section 409-m.
         2) Gender Neutral signage to comply with the Building Code of New York State and ANSI A117.1 Standards.
         3) Gender Neutral signage location to be coordinated (if required) during shop drawing review.

C. Room Occupancy Signs (Type 8):
   1. Provide Room Occupancy Signs in all rooms where the rooms are calculated to have greater than 50 occupants or spaces of 1,000 square feet or more.
   2. Room Occupancy signs shall state: MAXIMUM OCCUPANCY # PERMITTED and the number (#) of room occupants permitted within the space.
      a. Comply with The State Education Department, Educational Faciliites Manual of Planning Standards.
      b. Comply with the New York State Building Code 2020, Section 1004.9.
      c. Place sign near the main exit or exit access dorrway from the room or space and as directed by the Owner & Architect.

d. Sign Type: Same as room and door signs.
e. Sign Size: 12 inches x 7 inches.
f. Coordinate with Owner & Architect during shop drawing phase.
g. Locate in Band, Chorus and Cafeteria.

D. Accessible Exit Door Signs (Type 5):
1. Provide tactile signs at exit passageway doors, exit discharge doors, exit doors leading directly to the exterior, horizontal exits, exit stairways and exit ramp doors.
2. Comply with ADA 216.4.1-Exit Doors and ANSI 117.1; section 504.9.
3. Comply with New York State Building Code 2020, Section 1013.4.
4. Sign Type: Same as room and door signs.
5. Sign size: to match existing adjacent of similar type.

E. Accessible Entrance Signs (Type 6):
1. Provide signs with NYS Symbol of Accessibility at accessible entrances withere not all entrances are accessible.
2. Provide directional signs with NYS Symbol of Accessibility indicating the route to the nearest accessible building entrance at all non-accessible building entrances.
3. Provide directioneal signs with NYS Symbol of Accessibility indicating the route to the accessible exit.
4. Sign Type: same as room and door signs.
5. Comply with the New York State Building Code 2020, Section 1111.1.

F. Door Alarm Sign (Type 7)- See Drawing A902.

**2.03 VINYL WALL GRAPHICS**

A. For Custom Graphic Shapes as shown on Drawing A203; provide one of the two options below:
1. Option A: Cut Vinyl from Individual cut pieces- assembled and installed on-site by signage/graphics company.
2. Option B: Sheet Printed & Cut Vinyl- assembled and installed on-site by signage/graphics company.
3. Color Selections: to be made from the manufacturer's standard color range and may contain not more than (4) separate colors, with no metallics to be selected.
4. Recommended signage/graphics company for design coordination and installation: Signarama- 33 South Street, Warwick, NY. Phone: 845-986-9846.

**2.04 SIGN TYPES**

A. Flat Signs: Signage media without frame.
1. Edges: Squareg.
2. Corners: Square (in District Administration areas only) Radiused in other areas to match existing adjacent signage.
3. Wall Mounting of One-Sided Signs: Tape adhesive.
4. Wall and Ceiling Mounting of Two-Sided Signs: Aluminum wall bracket, powder coated, color selected from manufacturer's standard colors, attached with screws in predrilled mounting holes, set in clear silicone sealant.
5. Suspended Mounting: Stainless steel suspension cables, cable clamps, and ceiling fastener suitable for attachment to ceiling construction indicated.

B. Color and Font: Unless otherwise indicated:
1. Character Font: Helvetica, Arial, or other sans serif font.
2. Character Case: Upper case only.
3. Background Color: Clear.
4. Character Color: Contrasting color.

## 2.05 TACTILE SIGNAGE MEDIA

A. Engraved Panels: Laminated colored plastic; engraved through face to expose core as background color:
   1. Total Thickness: 1/8 inch.
   2. Material: Plaque material shall be melamine plastic laminate with contrasting color core.
      a. The melamine shall be non-static, fire-retardant and self-extinguishing.
         1) Flame Spread: Less than 25.
         2) Smoke Developed Values: 95-120.
         3) Auto-Ignition Temperature: Greater than 450 degrees F.
      b. The plastic laminate is to be impervious to most acids, alkalies, alcohol, solvents, abrasives and boiling water.

## 2.06 ACCESSORIES

A. Concealed Screws: Stainless steel, galvanized steel, chrome plated, or other non-corroding metal.

B. Tape Adhesive: Double sided tape, permanent adhesive.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify that substrate surfaces are ready to receive work.

## 3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install neatly, with horizontal edges level.

C. Protect from damage until Date of Substantial Completion; repair or replace damaged items.

**END OF SECTION**

**SECTION 10 1419**
**DIMENSIONAL LETTER SIGNAGE**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Dimensional letter signage.

B. Board for exterior mount dimensional letters- Exterior.

### 1.02 REFERENCE STANDARDS

A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines current edition.

B. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

C. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

### 1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Manufacturer's product literature for each type of dimensional letter sign, indicating style, font, colors, locations, and overall dimensions of each sign.

C. Shop Drawings:
   1. Include dimensions, locations, elevations, materials, text and graphic layout, and attachment details.

D. Samples: Submit one sample of each type of dimensional letter sign of size similar to that required for project, indicating sign style, font, and method of attachment.

E. Selection Samples: Where materials, colors, and finishes are not specified, submit two sets of selection charts or chips.

F. Manufacturer's Installation Instructions: Include installation templates and attachment devices.

G. Manufacturer's qualification statement.

### 1.04 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. Package dimensional letter signs as required to prevent damage before installation.

B. Store under cover and elevated above grade.

C. Store tape adhesive at a normal room temperature of 68 to 72 degrees F.

### 1.06 FIELD CONDITIONS

A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.

B. Maintain minimum ambient temperature during and after installation.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Dimensional Letter Signs:
   1. Inpro Corporation: www.inprocorp.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

## 2.02 REGULATORY REQUIREMENTS

A. Accessibility Requirements: Comply with ADA Standards and ICC A117.1 and applicable building codes, unless otherwise indicated; in the event of conflicting requirements, comply with the most restrictive requirements.

## 2.03 DIMENSIONAL LETTERS

A. Applications: Building identification.
   1. Use individual metal letters.
   2. Mounting Location: Exterior as indicated on drawings.
   3. Allow for total of 35 letters.

B. Metal Letters:
   1. Material: Aluminum casting.
   2. Thickness: 1/8 inch minimum.
   3. Letter Height: As indicated on drawings.
   4. Text and Typeface:
      a. Character Font: Helvetica, Arial, or other sans serif font.
   5. Finish: Brushed, satin.
   6. Color: As selected.
   7. Mounting: Concealed screws.

## 2.04 ACCESSORIES

A. Board for Exterior Mounting of Dimensional letters.
   1. DiBond aluminum composite material with solid polyethylene core mfg. by 3A Composites.
   2. Finish/ Color: to be selected from manufacturers standard color options.

B. Concealed Screws: Noncorroding metal; stainless steel, galvanized steel, chrome plated, or other.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify that substrate surfaces are ready to receive work.

B. Notify Architect if conditions are not suitable for installation of signs; do not proceed until conditions are satisfactory.

## 3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install with horizontal edges level.

C. Locate dimensional letter signs and mount at heights indicated on drawings and in accordance with ADA Standards and ICC A117.1.

D. Protect from damage until installation; repair or replace damaged items.

**END OF SECTION**

**SECTION 10 2113.19**
**PLASTIC TOILET COMPARTMENTS - ASI ACCURATE/GLOBAL**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Solid plastic toilet compartments.

### 1.02 RELATED REQUIREMENTS

A. Section 10 2800 - Toilet, Bath, and Laundry Accessories.

### 1.03 ABBREVIATIONS AND ACRONYMS

A. HDPE: High-density polyethylene.

### 1.04 REFERENCE STANDARDS

A. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

B. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

C. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth 2019.

### 1.05 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate work with placement of support framing and anchors in walls and ceilings.

B. Note that these campartments will be an extension to existing compartments. GC is to ensure components match in size, type, color and finish to the existing.

### 1.06 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data on panel construction, hardware, accessories, and finishes.

C. Shop Drawings:
   1. Indicate plans, elevations, and dimensions. Include door swings, toilet fixture centerlines, and floor drains on plans.

D. Samples:
   1. For Initial Selection: Submit color charts and samples for each type of toilet compartment material.

E. Manufacturer's qualification statement.

### 1.07 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least three years of documented experience.

### 1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle materials and products in accordance with manufacturer's instructions and recommendations and industry standards.

### 1.09 FIELD CONDITIONS

A. Ambient Conditions: Maintain environmental conditions such as temperature, humidity, and ventilation within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

B. Existing Conditions: Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication.

## 1.10 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Manufacturer Warranty: Provide 25-year manufacturer warranty for HDPE material against breakage, corrosion, and delamination.

# PART 2 PRODUCTS

## 2.01 MANUFACTURERS

## 2.02 PLASTIC TOILET COMPARTMENTS

A. Toilet Compartments: Solid plastic (HDPE), standard privacy, floor and wall anchored.

B. Design Criteria:
   1. Accessibility: Design compartments indicated on drawings to comply with ICC A117.1 and ADA Standards.
   2. Fire Performance: Provide assemblies that pass when tested in accordance with NFPA 286.

C. Fabrication:
   1. Fabricate toilet compartment components to sizes indicated.
   2. Coordinate requirements and provide cutouts for through-partition toilet accessories.
   3. Provide manufacturer's standard corrosion-resistant supports, leveling mechanisms, anchors, and anchoring assemblies for pilasters and posts.

## 2.03 COMPONENTS

A. Doors and Panels: Single sheets of solid molded homogenous high-density polyethylene (HDPE).
   1. Finish:
      a. Color: Provide match to existing plastic compartments in Locker Rooms..
      b. Texture: Manufacturer's standard for selected color.
   2. Edges: 1/4-inch radius machined edges.
   3. Heat Sink: Extruded aluminum attached to bottom of doors and panels.

B. Door and Panel Dimensions:
   1. Thickness: 1 inch.
   2. Door Panel Height: 55 inches.
   3. Door Height Above Floor: 14 inches.

## 2.04 MATERIALS

## 2.05 HARDWARE AND ACCESSORIES

A. Brackets:

B. Attachments, Screws, and Bolts: Stainless steel , tamper-resistant type..

**END OF SECTION**

**SECTION 10 2600**
**WALL AND DOOR PROTECTION**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Corner guards.

### 1.02 RELATED REQUIREMENTS

A. Section 05 5000 - Metal Fabrications: Corner guards fabricated from rolled metal sections or bent plate.

### 1.03 REFERENCE STANDARDS

A. ASTM D256 - Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics 2023, with Editorial Revision.

B. ASTM D543 - Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents 2021.

C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

D. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials 2022.

E. ASTM F476 - Standard Test Methods for Security of Swinging Door Assemblies 2023.

F. ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi 2015, with Editorial Revision (2021).

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Indicate physical dimensions, features, wall mounting brackets with mounted measurements, anchorage details, and rough-in measurements.

C. Samples: Submit samples illustrating component design, configurations, joinery, color and finish.
   1. Submit two sections of corner guards, 24 inches long.

D. Manufacturer's Instructions: Indicate special procedures, perimeter conditions requiring special attention, and _____.

E. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

F. Maintenance Data: Manufacturer's instructions for care and cleaning of each type of product. Include information about both recommended and potentially detrimental cleaning materials and methods.

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver wall and door protection items in original, undamaged protective packaging. Label items to designate installation locations.

B. Do not deliver products to project site until areas for storage and installation are fully enclosed, and interior temperature and humidity are in compliance with manufacturer's recommendations for each type of item.

### 1.06 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Manufacturer Warranty: Provide 5-year manufacturer warranty for metal crash rails. Complete forms in Owner's name and register with manufacturer.

C. Installer Warranty: Provide 5-year warranty for metal crash rails commencing on Date of Substantial Completion. Complete forms in Owner's name and register with installer.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Corner Guards (Stainless Steel):
   1. Construction Specialties, Inc: www.c-sgroup.com/#sle.
   2. Inpro: www.inprocorp.com/#sle.
   3. Koroseal Interior Products: www.koroseal.com/#sle.
   4. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 PERFORMANCE CRITERIA

A. Impact Strength: Unless otherwise noted, provide protection products and assemblies that have been successfully tested for compliance with applicable provisions of ASTM D256 and/or ASTM F476.

B. Chemical and Stain Resistance: Unless otherwise noted, provide protection products and assemblies with chemical and stain resistance complying with applicable provisions of ASTM D543.

C. Fungal Resistance: Unless otherwise noted, provide protection products and assemblies which pass ASTM G21 testing.

### 2.03 PRODUCT TYPES

A. Corner Guards - Flush Mounted:
   1. Material: Type 304 stainless steel, No. 4 finish.
   2. Performance: Resist lateral impact force of 100 lbs at any point without damage or permanent set.
   3. Fire Resistance: Where fire rating is specified for the wall in which the guard is mounted, provide assemblies that have been tested in accordance with ASTM E119 for the same rating as the wall.
   4. Surface Burning Characteristics: Provide assemblies with flame spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
   5. Width of Wings: one inches.
   6. Corner: Square.
   7. Color: As selected from manufacturer's standard colors.
   8. Length: One piece.

### 2.04 FABRICATION

A. Fabricate components with tight joints, corners and seams.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify that rough openings, concealed blocking, and anchors are correctly sized and located.

B. Verify that substrate surfaces for adhered items are clean and smooth.

C. Start of installation constitutes acceptance of project conditions.

### 3.02 INSTALLATION

A. Install components in accordance with manufacturer's instructions, level and plumb, secured rigidly in position to supporting construction.

B. Position corner guard 4 inches above finished floor to height shown on drawings.

### 3.03 TOLERANCES

A. Maximum Variation From Required Height: 1/4 inch.

B. Maximum Variation From Level or Plane For Visible Length: 1/4 inch.

### 3.04 CLEANING

A. See Section 01 7419 - Construction Waste Management and Disposal, for additional requirements.

B. Clean wall and door protection items of excess adhesive, dust, dirt, and other contaminants.

**END OF SECTION**

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**SECTION 10 2800**
**TOILET, BATH, AND LAUNDRY ACCESSORIES - ASI**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Grab bars.

B. Mirrors.

### 1.02 REFERENCE STANDARDS

A. ASTM C1036 - Standard Specification for Flat Glass 2021.

B. ASTM C1503 - Standard Specification for Silvered Flat Glass Mirror 2018.

### 1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Basis of Design Manufacturer: American Specialties, Inc: www.americanspecialties.com/#sle.

B. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 GRAB BARS

A. Grab Bars: Type 304 stainless steel.
   1. Standard Duty Grab Bars:
      a. Push/Pull Point Load: 250 lbf, minimum.
      b. Clearance: 1-1/2 inch clearance between wall and inside of grab bar.
      c. Length and Configuration: As indicated in product listing.
      d. Products:
         1) Model 3001-18 - 18 inch length - Grab Bar - Concealed Mounting, 1 inch OD.
         2) Model 3401-36 - 36 inch length - Exposed Flange, 1-1/4 inch OD, Smooth - Straight Grab Bar.
         3) Model 3801-48 - 48 inch length - Snap Flange, 1-1/2 inch OD, Smooth - Straight Grab Bar.
         4) Substitutions: Section 01 6000 - Product Requirements.

### 2.03 MIRRORS

A. Mirrors: Stainless steel framed, 1/4 inch thick annealed float glass, ASTM C1036.
   1. Annealed Float Glass: Silvering, protective and physical characteristics in compliance with ASTM C1503.
   2. Size: 24 inches wide by 36 high..
   3. Angle Frame: 0.05 inch angle shapes, with mitered and welded and ground corners, and tamperproof hanging system; satin finish.
   4. Products:
      a. Model 0600 Series - Stainless Steel Inter-Lok Angle Frame - Plate Glass Mirror.
      b. Substitutions: Section 01 6000 - Product Requirements.

### 2.04 MATERIALS

A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.

**2.05 FINISHES**

A. Stainless Steel: Satin finish, unless otherwise noted.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify existing conditions before starting work.

B. Verify exact location of accessories for installation.

C. For electrically-operated accessories, verify that electrical power connections are ready and in the correct locations.

D. Verify that field measurements are as indicated on drawings.

**3.02 INSTALLATION**

A. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.
   1. Grab Bars: As indicated on drawings.

**END OF SECTION**

**SECTION 10 5113**
**METAL LOCKERS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Metal lockers.

### 1.02 RELATED REQUIREMENTS

A. Section 03 3000 - Cast-in-Place Concrete: Concrete base construction.

### 1.03 REFERENCE STANDARDS

A. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

B. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable 2021a.

C. ASTM F1267 - Standard Specification for Metal, Expanded, Steel 2018 (Reapproved 2023).

D. ICC A117.1 - Accessible and Usable Buildings and Facilities 2017.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Manufacturer's published data on locker construction, sizes, and accessories.

C. Shop Drawings: Indicate locker plan layout, numbering plan and combination lock code.

D. Samples: Submit two samples 3 by 6 inches in size showing color and finish of metal locker material.

E. Manufacturer's Installation Instructions: Indicate component installation assembly.

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect locker finish and adjacent surfaces from damage.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Metal Lockers:
   1. Basis of Design: Art Metal Products; Heavy-Duty Corridor type: www.artmetalproducts.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 LOCKER APPLICATIONS

A. Student Lockers: Metal lockers, recessed mounted.
   1. Width: 15".
   2. Depth: 12".
   3. Height: 60".
   4. Configuration: Two tier.
   5. Fittings: Size and configuration as indicated on drawings.
      a. Single shoe shelf.
      b. Hooks: One single prong.
   6. Ventilation: Louvers at top and bottom of door panel.
   7. Locking: Padlock hasps, for padlocks provided by Owner.
   8. Provide sloped top.
   9. Color: To be selected from manufacturer's full range by Architect.

## 2.03 METAL LOCKERS

A. Accessibility: Design units indicated on drawings as 'accessible' to comply with ICC A117.1 and ADA Standards.

B. Locker Case Construction:
   1. Heavy-Duty, Welded Construction: Made of formed and welded together sheet steel; metal edges finished smooth without burrs; baked enamel or powder coat finished inside and out.
      a. Assembly: Do not use bolts, screws, or rivets to assemble locker bodies.
      b. Locker Body Components: Formed and flanged from steel sheet of the following type and minimum thicknesses:
         1) Unperforated Steel Sheet: Commercial Steel (CS), Type B, supplied for exposed applications and complying with ASTM A1008/A1008M and the following:
         2) Body and Shelves: 24 guage solid body components.
         3) Doors: 14 gauge louvered doors.
         4) Backs: 18 gauge, 0.0478 inch.
         5) Base: 18 gauge, 0.0478 inch.
            (a) Height: 4 inches.
      c. Frames: Formed channel shape, welded and ground flush, welded to body, resilient gaskets and latching for quiet operation.
         1) Door Frame: 16 gauge, 0.0598 inch, minimum.
      d. Where ends or sides are exposed, provide flush panel closures.

C. Latches and Door Handles: Manufacturer's standard.

D. Hinges: Continuous piano hinge with powder coat finish to match locker color.

E. Sloped Top: 20 gauge, 0.0359 inch, with closed ends.

F. Coat Hooks: Stainless steel or zinc-plated steel.

G. Number Plates: to match existing- numbered as per directed by district..

H. Locks: Locker manufacturer's standard type indicated in Applications article above.

# PART 3 EXECUTION

## 3.01 EXAMINATION

A. Verify that prepared bases are in correct position and configuration.

B. Verify bases and embedded anchors are properly sized.

## 3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Place and secure on prepared base.

C. Install lockers plumb and square.

D. Secure lockers with anchor devices to suit substrate materials. Minimum Pullout Force: 100 pounds.

E. Install end panels, filler panels, and sloped tops.

F. Install fittings if not factory installed.

G. Replace components that do not operate smoothly.

## 3.03 CLEANING

A. Clean locker interiors and exterior surfaces.

**END OF SECTION**

**SECTION 11 3013**
**RESIDENTIAL APPLIANCES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Kitchen appliances for FACS Culinary Classroom.

### 1.02 RELATED REQUIREMENTS

A. Section 26 0583 - Wiring Connections: Electrical connections for appliances.

### 1.03 REFERENCE STANDARDS

A. UL (DIR) - Online Certifications Directory Current Edition.

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's data indicating dimensions, capacity, and operating features of each piece of residential equipment specified.

C. Copies of Warranties: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.

B. Electric Appliances: Listed and labeled by UL (DIR) and complying with NEMA Standards (National Electrical Manufacturers Association).

### 1.06 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

## PART 2 PRODUCTS

### 2.01 KITCHEN APPLIANCES

A. Cooking Exhaust, Type ____: Range hood.
   1. Size: 30 inches wide.
   2. Fan: 380 CFM.
   3. Exhaust: Recirculating.
   4. Filters: Dishwasher safe ARC-FLOW filters.
   5. Ductless Filter Kit: #CFK1-TM.
   6. Features: Include cooktop light, removable grease filter, and push button controls.
   7. Exterior Finish: Stainless steel.
   8. Manufacturers:
      a. Basis of Design: Cosmo Appliances; Range Hood model# COS-63175. www.cosmoappliances.com/#sle..

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Verify utility rough-ins are provided and correctly located.

### 3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

### 3.03 ADJUSTING

A. Adjust equipment to provide efficient operation.

**3.04 CLEANING**

A. Remove packing materials from equipment and properly discard.

B. Wash and clean equipment.

**END OF SECTION**

**SECTION 11 4000**
**FOODSERVICE EQUIPMENT**

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 01 Specifications Sections, apply to this Section.

### 1.2 SUMMARY

A. Supply, deliver and set in place all food service equipment at identified locations, and level before and after final connections by others. FEC to coordinate with authorized service agents any start up requirements called out in this written specification as well as provide prompt demonstrations to owner

### 1.3 DEFINITIONS

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
   1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, which is current as of date of the Contract Documents.
   2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
   3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

C. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by Contract Documents. Substitutions require approval by Architect for use or implementation.
   1. Substitutions provisions are handled under Division 01 Section.

## 1.4 REFERENCES

A. All Food Service Equipment provided and installed must comply with below agencies, state department of health and county or local laws and ordinance.

B. American Society for Testing Materials (ASTM):
   1. ASTM A167, Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip.
   2. ASTM A446, Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Structural (Physical) Quality.
   3. ASTM C1036, Specification for Flat Glass.
   4. ASTM C1048, Specification for Heat Treated Flat Glass-Kind HS, Kind FT Coated and Uncoated Glass.

C. American Welding Society (AWS).

D. National Electrical Manufacturers Association (NEMA).

E. National Fire Protection Association (NFPA 96).

F. National Sanitation Foundation (NSF).

G. Underwriters Laboratories Listing (UL).

H. Reference Standard AGS grease hoods, ductwork and fire extinguishing system per NYSBC 904.2.1

## 1.5 SUBMITTALS

A. Within sixty (60) days after award of contract (before equipment is purchased) the flowing shall be submitted in accordance with Section 013300 SUBMITAL PROCEDURES.
   1. The submittal package will include the following: Product data book (cut sheet book) this product data book should account for all item numbers in this contract up to and including spare numbers and existing equipment. Product data cut sheets shall be marked up in a way that indicates model and accessories included with the item.
   2. Submittal drawings will consist of the following: Custom shop drawings (hoods, walk-ins, millwork, serving lines custom fabrication, etc.) Equipment layout drawings, Plumbing connection drawings, electrical connection drawings, HVAC layout drawings and Special condition drawings (Wall backing, floor depressions, etc.)
   3. Submittal package shall be at least 98% complete at submission unless pre-approved by architect and CKC.

B. Electronically submit (PDFs) assembly drawings, electrical and mechanical rough-in connection plans, details for plumbing, electrical, air conditioning and ventilation services for all kitchen equipment and brochures, catalog cut-sheets, specifications and operating characteristics for buy-out equipment. Clearly indicate any deviations from contract Documents, such as arrangement of piping, connections, wiring method of fabrication, manner of structural conditions, standard shop practices, or other reasons, and note in Cover Sheet accompanying submittals.

C. Drawing of fabricated equipment shall not be less than ¾" equal one-foot scale.

D. Rough-in drawings shall not be less than ¼" equal one-foot scale.

E. Product Data: Provide data on appliances; indicate configuration, sizes, materials, finishes, locations, utility connections and locations.

F. Samples: Submit samples of stainless steel and other finish materials for color selection.

G. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

H. Manufacturer's Certificate: Certify that exhaust system and tests meet or exceed specified requirements.

I. It shall be the FEC responsibility to coordinate all color selections that are not already selected with the Architect. Any Color selections stated in written specifications shall be confirmed by the FEC with Architect prior to ordering.

**1.6** CLOSEOUT SUBMITTALS

A. Within thirty (30) days after completion of contract the following shall be submitted.
   1. Operation and Maintenance Data:
      a. Operation Data: Provide manuals with a sequence of operation and utility connection diagram explaining system operation and corresponding to actual devices. After approval, submit 2 sets of three ring binders and an electronic copy.
      b. Maintenance Data: Provide lubrication and periodic maintenance requirement schedules.
      c. Within this manual Provide serial numbers on all equipment including walk in boxes and refrigeration when manual covers more than one model, indicate model provided
   2. Warranty letter by the FEC (Foodservice Equipment Contractor) stating date of completion of installation for warranty issues.
   3. Demonstration sign in sheet listing what was demonstrated and all parties that attended this demonstration
   4. Equipment keys and spare parts list to include what was turned over and to whom.
   5. Signed by owner or owner's representative the punch list determining that all punch list items have been completed and to the owner's satisfaction.

6. Provide documentation on all cooking equipment startups performed by an authorized service agent.

**1.7** QUALITY ASSURANCE

A. Regulatory Requirements:
   1. Conform to applicable State and local codes for utility requirements.
   2. Products Requiring Electrical Connection: Listed and classified by Underwriters' Laboratories, Inc. as suitable for the purpose specified and indicated.

B. Energy Ratings: Provide appliances with energy guide labels with energy cost analysis (annual operating costs) and efficiency information as required by Federal Trade Commission.
   1. Provide all appliances that are Energy Star Rated.

**1.8** QUALIFICATIONS

A. Installer: Must have a minimum of 5 years documented installation experience with projects similar to this project.

B. Fabricator: Must specialize in manufacture of commercial food services equipment with minimum 5 years documented experience.

C. Manufacturer: Must specialize in manufacturing products specified in this section with a minimum of 5 years documented equipment manufacturing experience.

D. One qualified full-time site superintendent all be satisfactory to the Owner and Architect in all respects, and owner shall have the right to require Contractor to dismiss from the project any superintendent whose performance is not satisfactory to Owner and Architect except with another superintendent satisfactory to the Owner and Architect in all respects. At the request of the Architect, the Contractor's superintendent shall attend project meetings, whether the project meetings are prior to the start of the Contractor's work.
   1. Contractor shall provide a superintendent with experience in managing project of this size and complexity with minimum three (3) projects including projects completed on time per contract. Experience shall be documents in writing from end user and design consultant.

**1.9** DELIVERY, STORAGE AND HANDLING

A. Store products clear of floor in a manner to prevent damage.

B. Coordinate size of access and route to place of equipment installation.

C. Coordinate equipment delivery and installation with all other trades.

D. Contractor takes all responsibility for equipment damage incurred before, during and after installation, until Substantial Completion has been determined by Architect.

E. One site superintendent all be satisfactory to the Owner and Architect in all respects, and owner shall have the right to require Contractor to dismiss from the project any superintendent whose performance is not satisfactory to Owner and Architect except with another superintendent satisfactory to the Owner and Architect in all respects. At the request of the Architect, the Contractor's superintendent shall attend project meetings, whether the project meetings are prior to the start of the Contractor's work.

1. Contractor shall provide a superintendent with experience in managing project of this size and complexity with minimum three (3) projects including projects completed on time per contract. Experience shall be documents in writing from end user and design consultant.

**1.10** COORDINATION

A. Coordinate existing equipment with Owner per Part 3 Existing Equipment.

B. Coordinate with other trades to ensure existing equipment is disconnected prior to removal by this contractor. Supply and install all necessary drain traps, steam traps, vents, shut-offs, valves, pipe fittings, and/or other materials to complete final plumbing and electrical or steam connections between the rough-in and the connection or connections on each piece of equipment.

C. Ductwork and ductwork connections from hoods collars to duct work provided by HVAC unless otherwise indicated.

D. Install all drain fittings, tailpieces, faucets, operating switches, and/or starters.

E. Coordinate sequencing of equipment installation with other trades prior to installing any piece of equipment.

F. Coordinate special conditions with other trades, i.e. floor depression, soda line conduit requirements, roof curbs, control wiring, etc.

**1.11** WARRANTY

A. Provide a one (1) year parts and labor guarantee on all new equipment.

B. Components of equipment subject to replacement prior to one year's use and those items which may fail due to improper or inadequate periodic maintenance by the Owner/Operator are not intended to be included within the scope of warranty.

C. For all equipment that has refrigeration systems and semi-hermetic compressors, furnish an additional four (4) year warranty on all compressors.

D. Guarantee/Warranty period shall commence with the date of Substantial Completion.

E. Warranty includes all costs incurred for removal and re-installation of the replacement component or equipment.

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
   1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
   2. All products shall be new. Use salvaged materials only where specifically directed to do so.
   3. 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.
   4. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
   5. Where products require color selection the Architect will make the selection.
   6. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
   7. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:
   1. Products:
      a. Non-restricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
   2. Manufacturers:
   3. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

### 2.2 COMPARABLE PRODUCTS

A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
   1. Evidence that the proposed product does not require revisions to the Contract Documents that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
   2. Detailed comparison of significant qualities of proposed product with those named in the

Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.

3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

## 2.3 MATERIALS

A. Sheet Steel: ASTM A446; 1.25 ounce per square foot galvanized coating.

B. Stainless Steel: ASTM A167; Type 304 commercial grade, No. 4 finish.

C. Glass: 3/16-inch float conforming to ASTM C1036 and ASTM C1048; exposed edges ground; cut or drilled to receive hardware.

D. Plastic Laminate: NEMA LD3; 0.050-inch-thick; color as selected by Architect.

E. Laminate Backing Sheets: LD3-BK20, 0.020-inch-thick, unfinished plastic laminate.

F. Finish Hardware: Manufacturer's standard.

G. Work Surfaces: As specified.

H. Fittings: Sink drains with crumb cup and waste fittings, faucets, and electrical outlets.

I. Service Outlet Covers and Escutcheons: Stainless steel.

J. Service Accessories and Connections:

1. Provide control switch or starter on each motor-driven appliance or heating element, under provisions of UL requirements.
2. Provide internal wiring for equipment, including electrical devices, wiring controls, and switches to a common junction box.
3. Provide suitable length of 4 wire cord with plugs to match building receptacles.
4. Provide lamps for fixtures in equipment.
5. Provide equipment with connection terminals, so that connections of plumbing, gas, steam, electrical, ventilation, and refrigeration services can be made. Where receptacles are specified for custom equipment, supply cut-outs and outlet boxes set in place accessible for connections of electrical work.

## 2.4 EQUIPMENT

A. Provide rough-in hardware, supports and connections, attachment devices, closure panels, trim strips, and all accessories required for proper operation of equipment.

B. Standard of Comparison: The specified equipment has been established to set a standard of quality and features.

C. If substitutions require different utility/building conditions, electrical, plumbing, ventilation, etc., from those specified, a complete list of those changes for each item shall be included with the request for substitution. Any costs associated with these changes will become the responsibility of this Contractor.

D. Verify direction of door swings.

## 2.5 FABRICATION

A. General Requirements:
1. Stainless Steel Fastenings and Fittings: Bolts and screws with countersunk flat heads at interior and exterior visible or accessible surfaces. Use concealed fastenings where possible
2. Form edges smooth. Fabricate sheet material for work surfaces, facings, shelves, and drainboards of straight length in one continuous sheet when not over 12 feet in length.
3. Fix leg-mounted units by dowelling to floor with 1/4-inch stainless steel pins, where vibration or oscillation is anticipated.
4. Provide legs with stainless steel adjustable feet. Fasten legs to equipment securely and rigidly.
5. Install rubber or nylon button feet or other protective device on bearing surface of any item positioned on a finished surface.
6. Isolate rotating or reciprocating machinery to prevent noise and vibration.
7. Provide accommodation for installation of final connections by other trades and accessibility to components such as compressors, junction boxes, etc.…
8. Grind welds of stainless-steel smooth and flush; polish to match adjacent surfaces.
9. Cut and drill components for service outlets and fixtures.
10. Provide access panels where required to access utilities.
11. Shop assemble work where possible.

B. Load Carrying Counter Surfaces: Reinforce frame support system and surfaces so that surfaces may safely support a load of 200 pounds concentrated on one square foot in any area or surface with no indentation showing on surface, and with permanent set not exceeding 0.005 inches.

## 2.6 FINISHES

A. Metal (Except Stainless Steel): Degrease and phosphate etch followed by primer and minimum 2 coats factory baked epoxy enamel, color as selected by Architect from manufacturer’s full range of standard and custom colors.

B. Plastic Laminate: Color as selected by Architect from manufacturer’s full range of standard and custom colors.

C. Stainless Steel: Number 4 finish (unless indicated otherwise).

D. Bituminous Paint: Sound deaden internal surfaces of metal work and underside of metal counters and sinks.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Verify all existing conditions and existing equipment requirements.

B. Verify ventilation outlets, service connections, and supports are correct and in required location.

C. Verify operational condition of existing equipment.

D. Immediately upon finding Report equipment discrepancies or non-operational equipment to the Architect.

### 3.2 INSTALLATION

A. Pre-installation site visits are required to obtain field measurements, verify finish dimensions, examine rough in progress and to coordinate with trades on site.

B. Use anchoring devices approved by manufacture and are made with a material that will not rust and are appropriate for equipment and expected usage.

C. Verify equipment is installed in accordance with the manufacturer's recommendations and requirement.

D. Insulate to prevent electrolysis between dissimilar metals. Provide sealant to achieve clean joint without crevices.

E. Weld and grind joints in stainless steel work tight, without open seams, where necessary due to limitations of sheet sizes or installation requirements.

F. Sequence installation and erection to ensure mechanical, plumbing and electrical connections are achieved in an orderly and expeditious manner.

G. Cut, fit, and patch where necessary. Coordinate work with other trades.

H. Cut and drill tops, backs or other elements for service outlets, fixtures, and fittings.

I. Provide access panel or cutting and patching of items of this Section required for the installation or services of equipment.

J. Remove and reinstall existing equipment required under this Section. Foodservice Equipment contractor shall verify condition of existing equipment prior to removal, if being reinstalled by this contactor or reused by Owner.

K. Protect new and existing equipment during construction phase as required to prevent damage to equipment.

## 3.3 EXISTING EQUIPMENT

A. The Owner reserves the right to keep any existing equipment, coordinate with Owner on removal and transportation of equipment to a location of their choice. It shall be the responsibility of this contractor to salvage equipment the Owner chooses not to retain.
   1. Prior to removal from the kitchen any equipment that is labeled existing & relocate, Existing & remains or existing & reuse, the FEC shall verify that the equipment is in working order and document via photos any damage and cleanliness Any damaged or not working equipment should be reported to GC/CM or Architect prior to moving.

B. MEP disconnections by related trades, move, store and re-install equipment, ready for utility connection.

C. Coordinate scope of work and timeline with Owner and other trades prior to removal of existing equipment.

D. Clean and re-furbish existing equipment to be re-used to “like new” condition, as noted.

E. It is the responsibility of this contractor to provide storage as required until the piece of equipment is installed or re-installed.
   1. Prior to removal from the kitchen any equipment that is labeled existing & relocate, Existing & remains or existing & reuse, the FEC shall verify the cleanliness of existing equipment Any overly dirty/overly damaged equipment should be reported to the GC/CM or Architect prior to moving.

F. It is the responsibility of this contractor to evacuate refrigerant, dismantle and remove all refrigeration equipment associated with existing walk-in cooler, freezer or equipment with remote refrigeration components (if applicable).

## 3.4 ADJUSTING

A. Upon completion of installation, adjust new and existing equipment and apparatus to ensure proper working order and conditions.

B. If a new piece of equipment is not functioning properly and determined to be non-repairable in the field it shall be removed and replaced with a new piece of equipment.

C. Inspect all equipment and run each piece of equipment through a complete operating cycle to verify that equipment is fully operational.

## 3.5 CLEANING

A. Cleaning shall be conducted prior to the turnover of the kitchen to the owner

B. Remove masking or protective covering from stainless steel and other finished surfaces. Including walk in panels/ exhaust hoods, door handles and trim strips

C. Remove all packing materials and debris from jobsite.

D. Wash and clean new and existing equipment.

E. Polish glass, plastic, hardware and accessories, fixtures and fittings.

### 3.6 DEMONSTRATION AND TESTING

A. Demonstrations shall be coordinated by the FEC and conducted prior to the turnover of kitchen to the owner. FEC shall provide sign in sheet from the demonstration showing attendance and items demonstrated. This document to be included with closeout documents

B. Test existing and new equipment prior to demonstration.

C. At completion of work, provide qualified and trained personnel to demonstrate operation of each item of equipment and instruct Owner in operating procedures and maintenance.

D. Individuals performing demonstration shall be fully knowledgeable of all operating and service aspects of equipment.

E. Start-up, test, and adjust new equipment. Authorized factory technicians shall start-up equipment requiring testing and balancing, i.e. hoods, pulping systems, equipment with remote components, etc. IT SHALL BE THE RESPONSIBLY OF THIS CONTRACTOR TO PAY ANY SERVICE FEES TO RETURN TO SITE TO COMPLETE ANY START UPS THAT COULD NOT BE PREFORMED ON FIRST TRIP DUE TO INCOMPLETE FINAL CONNECTIONS

F. All equipment that qualifies for factory startups will be coordinated by FEC and completed prior to equipment turn over to owner.

G. All demonstrations/training to be performed by a qualified manufactures representative. Provide to Architect attendance records for all training on all equipment

## PART 4 - LISTING OF FOODSERVICE EQUIPMENT

### 4.1 Item 1 - Cash Registers (Existing & Relocate) - Two (2)

### 4.2 Item 2 – Cashier Station – One (1) Required

A. Piper Products/Servolift Eastern Model 2-CD Per drawing #7177 Dimensions: 36(h) x 30(w) x 28(d) Elite Cashier's Serving Counter, 30"L x 36"H, mobile modular design with interlocking mech., 14 gauge stainless steel top with register cord hole, locking drawer, 20 gauge stainless steel front & end panels, 5" casters. Provide with the following:

1. 1 ea. 1-year warranty parts and labor
2. 1 ea. 120v/60/1-ph, 12 amps, NEMA 5-15P
3. 1 ea. Model DOUT Duplex Outlet, 120V for Elite system
4. 1 ea. Model JC Unit to include 14-gauge stainless steel "J" channel cord chase to keep cords for interconnected wired units (IWU) off the floor

5. 1 ea. Model FLP Filler Strips, for Elite systems
6. 1 ea. Model TFR Tubular foot rest-cashier unit, Elite systems
7. 1 ea. Model FRMA-30 Formica laminate without doors, for Elite systems. FEC to coordinate color selections with Architect
8. 1 ea. Model SRTS-30-28"AFF Tray slide for Elite system, 12" solid ribbed, heavy gauge stainless steel, for (2) openings - 30"W, MOUNTED 28"AFF
9. 1 ea. Model TURN DOWN Modified turn down with special interlocks to connect 2 different height counters.

### 4.3 Item 3 -Solid Top Unit – One (1) Required

A. Piper Products/Servolift Eastern Model 3-ST Per Drawing #7177 Dimensions: 36(h) x 46(w) x 28(d)Elite Utility Serving Counter, 46"L x 36"H, mobile modular design with interlocking mech., 14 gauge stainless steel top, 20 gauge stainless steel front & end panels, 18 gauge stainless steel undershelf, 5" casters, NSF. Provide with the following:
   1. 1 ea. 1-year warranty parts and labor
   2. 1 ea. "Petite Elite" 30" high in lieu of standard height
   3. 1 ea. Model SOUT Single Outlet, 120V for Elite system, 5-15R FOR ITEM 4 HATCO HMXS-24D (12.5 AMPS)
   4. 1 ea. Model JC Unit to include 14-gauge stainless steel "J" channel cord chase to keep cords for interconnected wired units (IWU) off the floor
   5. 1 ea. Model CWB Cut out with bushing for cords & wires
   6. 1 ea. Model FLP Filler Strips, for Elite systems
   7. 1 ea. Model HD-46 Hinged doors for (3) openings Elite system
   8. 1 ea. Model LD Locks, for doors for Elite system
   9. 1 ea. Model FRMAD-46 Formica laminate with doors, for Elite systems. FEC to coordinate color selection with Architect
   10. 1 ea. Model SRTS-46 Tray slide for Elite system, 12" solid ribbed, heavy gauge stainless steel, for (3) openings - 46"W

### 4.4 Item 4 -Heated Sandwich Slide – One (1) Required

A. Hatco Model HZMS-24D Dimensions: 32.71(h) x 28(w) x 28.13(d) Spot On Slant Heated Zone Merchandising Warmer, countertop, dual shelf, (2) zones per shelf, (6) divider rods, thermostat, infrared heat, LED lighting, hardcoat aluminum base, tempered side glass hinged to post, designer panels, 1500 watts, 12.5 amps, cUL, UL, UL EPH Classified. Provide with the following:
   1. 1 ea. NOTE: Includes 24/7 parts & service assistance, call 800-558-0607
   2. 1 ea. One-year on-site parts & labor warranty, plus one additional year parts only warranty on all Glo-Ray metal sheathed elements
   3. 1 ea. 120v/60/1-ph, 1500 watts, 12.5 amps, NEMA 5-15P, standard
   4. 1 ea. Model BLACK Black, designer color (available at time of purchase only)
   5. 4 ea. Model HZM-DIV Additional stainless-steel divider rods
   6. FEC to coordinate with Piper

### 4.5 Item 5 - Two Tier Hot/Cold Frost Top Units – Two (1) Required

A. Delfield Model N8242-2FTP Dimensions: 7.25(h) x 28.75(w) x 40.65(d) FlexiTop™ Frost/Hot Top, drop-in, 41-7/10"W, accommodates (2) sheet pans, aluminum top, (3) position rocker switch, (hot) temperature range 100-180° F, (cold) temperature range 0° - 20° F, stainless steel construction, 1/5 HP, self-contained refrigeration, R290 Hydrocarbon refrigerant, 115v/60/1-ph, 4.0 amps, cord with NEMA 5-15P, cUL, UL, NSF (40.65" x 28.75" x 7.25 cutout required). Provide with the following:

1. 2 ea. Tempered glass for sneeze guards (Customer Side)
2. FEC to ship to Piper for factory installation

**4.6 Item 6 – Solid Top Unit – One (1) Required**

A. Piper Products/Servolift Eastern Model 6-ST-MOD Per Drawing #7177 Dimensions: 36(h) x 88(w) x 28(d) Elite Utility Serving Counter, 88"L x 36"H, mobile modular design with interlocking mech., 14 gauge stainless steel top, 20 gauge stainless steel front & end panels, 18 gauge stainless steel undershelf, 5" casters, NSF, MODIFIED TO 32"D. Provide with the following:

1. 1 ea. 1-year warranty parts and labor
2. 1 ea. "Petite Elite" 30" high in lieu of standard height
3. 1 ea. Model SOUT Single Outlet, 120V for Elite system, 5-15R FOR ITEM 5 DELFIELD N8242-2FTP (8 AMPS)
4. 1 ea. Model SOUT Single Outlet, 120V for Elite system, 5-20R FOR ITEM 8 LTI QSCHP-2-H (12.7 AMPS)
5. 1 ea. Model JC Unit to include 14-gauge stainless steel "J" channel cord chase to keep cords for interconnected wired units (IWU) off the floor
6. 1 ea. Model FLP Filler Strips, for Elite systems
7. 1 ea. Model HD-88 Hinged doors for (6) openings Elite system
8. 1 ea. Model LD Locks, for doors for Elite system
9. 1 ea. Model FRMAD-88 Formica laminate with doors, for Elite systems. FEC to coordinate color selection with Architect
10. 1 ea. Model SRTS-88 Tray slide for Elite system, 12" solid ribbed, heavy gauge stainless steel, for (6) openings - 88"W
11. 1 ea. Model INSTALL PACKAGE INSTALL PACKAGE - to include cut-out in the counter top, install for the drop-in provided by FEC, electrical hook-up, reinforced top, and louvered panels if required. ***Drop-in to be provided by FEC***
12. Item 5 Delfield N8242-2FTP to be provided by FEC and installed by Piper.
13. 1 ea. Model INSTALL PACKAGE INSTALL PACKAGE - to include cut-out in the counter top, install for the drop-in provided by FEC, electrical hook-up, reinforced top, and louvered panels if required. ***Drop-in to be provided by FEC.***
14. Item 8 LTI QSCHP-2-H to be provided by FEC and installed by Piper.
15. 1 ea. Model PG MOUNT Mounting of other manufacturer's sneeze guard.
16. ***ELECTRICAL TO EXIT OPERATOR RIGHT BACK LEG. ***
17. Item 7 PMG Guard to be provided by FEC and installed by Piper.

**4.7 Item 7 - Breath Protector – One (1) Required**

A. Premier Metal & Glass Model TM2S-A -Per Drawing #46413 1" OD gearless adjustable food shield with top shelf, rear supports and slanted front support; 3/8" clear tempered glass with polished edges and radius corners; both end panels included (fixed); surface mounting option; no heat/light included; brushed stainless finish; approx. 42" cl length; approx. 164 lbs. ea. (2 end supports) fully adjustable single tier to protect item #8
   1. FEC to ship to Piper for factory installation

**4.8 Item 8 - 2 Well Hot/Cold Unit – One (1) Required**

A. Low Temp Industries Model DI-QSCHP-2 Dimensions: 21.64(h) x 34.25(w) x 26.8(d)QuickSwitch™ Hot/Cold/Freeze Food Well, drop-in, 34-1/4"W x 26-3/4"D x 21-16/25"H, 14ga stainless steel top, accommodates (2) 12" x 20" pan size, wired remote, individual wired remote digital controls for hot or cold operation, manifold drain, stainless steel top & wells, galvanized exterior, cUL, UL, UL EPH Classified (ANSI/NSF 4, ANSI/NSF 7). Provide with the following
   1. 1 ea. 120/v/60/1-ph, 12.7 amps, NEMA 5-20P
   2. FEC to ship to Piper for factory installation

**4.9 Item 9 - Corner Solid Top Unit – One (1) Required**

A. Piper Products/Servolift Eastern Model 2-CR-MOD Per Drawing #7177 Dimensions: 36(h) x 28(w) x 28(d)Elite Corner Serving Counter, 28"L x 36"H, mobile modular design with interlocking mech., 14 gauge stainless steel top, 20 gauge stainless steel front & end panels, 18 gauge stainless steel undershelf, 5" casters, NSF, MODIFIED TO 32"D. Provide with the following:
   1. 1 ea. 1-year warranty parts and labor
   2. 1 ea. "Petite Elite" 30" high in lieu of standard height
   3. 1 ea. Model JC Unit to include 14-gauge stainless steel "J" channel cord chase to keep cords for interconnected wired units (IWU) off the floor
   4. 1 ea. Model FLP Filler Strips, for Elite systems
   5. 1 ea. Model HD-32 Hinged doors for (2) openings Elite system
   6. 1 ea. Model LD Locks, for doors for Elite system
   7. 1 ea. Model FRMAD-32 Formica laminate with doors, for Elite systems. FEC to coordinate color selection with Architect
   8. 2 ea. Model SRTS-32 Tray slide for Elite system, 12" solid ribbed, heavy gauge stainless steel, for (2) openings - 32"W
   9. 2 ea. Model ME Mitered end for tray slide for Elite system

**4.1 Item 10 - Single Door Refrigerator – One (1) Required**

A. Continental Refrigerator Model 1RNSA Dimensions: 82.25(h) x 26(w) x 35.38(d)Refrigerator, reach-in, one-section, 20 cu. ft., self-contained refrigeration, stainless steel exterior, aluminum interior, standard depth, full-height solid door, cylinder lock, electronic control with digital display, hi-low alarm, unit comes standard with expansion valve, electric condensate evaporator, R290 Hydrocarbon refrigerant, 1/4 HP, cETLus, NSF, ENERGY STAR®. Provide with the following:
   1. 1 ea Standard warranty: 3-year parts and labor; additional 4-year compressor part

2. 1 ea 115v/60/1-ph, 5.2 amps, cord, NEMA 5-15P, standard
3. 1 ea Door hinged on right, standard
4. 1 ea 5" Casters, standard
5. 1 ea Model 50-P008A Pan Slide Assembly, full section for 18 x 26 or (2) 18 x 14 pans on 3" centers, bottom support, stainless steel angle (holds 16 per full section)

### 4.2 Item 11 - Mobile Warming Cabinet - One (1) Required

A. Metro Model C589-SDS-U Dimensions: 74.75(h) x 29.13(w) x 32.63(d)C5™ 8 Series Controlled Temperature Holding Cabinet with 6.8" touch-screen controls, mobile, full height, insulated, solid dutch doors, universal wire slides, (17) 18" x 26" or (34) 12" x 20" x 2-1/2" pan capacity, 3" O.C. (adjustable on 1-1/2" increments), 5" casters, 304 stainless steel, 120v/60/1-ph, 2000 watts, 16.7 amps, NEMA 5-20P, cULus, NSF, Made in USA, ENERGY STAR®. Provide with the following:
1. 1 ea. 1-year warranty against manufacturing defects

### 4.3 Item 12 - Refrigerated Merchandisers – Two (2) Required

A. Structural Concepts Model CO35R Dimensions: 61.63(h) x 36.25(w) x 33(d) Oasis® Self-Service Refrigerated Open Air Screen Case, 36-1/4"W, 61-5/8"H, Breeze-E (Type II) with EnergyWise self-contained refrigeration system, Blue Fin coated coil, (2) non-lit adjustable metal shelves, top light, one piece formed ABS plastic tub, black interior, (2) full end panels, 4"D removable wall spacer brackets, casters, cETLus, ETL-Sanitation. Provide each with the following:
1. NOTE: If GFCI is required, a GFCI breaker MUST be used in lieu of a GFCI receptacle
2. NOTE: 34" Minimum entry door clearance required (without shipping skid & with rear spacer bracket removed)
3. 1 yr. parts & labor warranty, 5 yr. compressor warranty, standard
4. 1 ea. Breeze-E (Type II) with EnergyWise refrigeration - NSF Type II compliant, standard
5. 1 ea. 110-120v/60/1ph, 14.66 amps, standard
6. 1 ea. 6 ft straight blade power cord NEMA 5-20P (base exit), standard
7. 1 ea. NOTE: Compressor air intake from front & out rear, unit MUST remain 4" from wall & front panel cannot be blocked (Not applicable with remote refrigeration option)
8. 1 ea. Model CLEAN SWEEP Clean Sweep®, automatic condenser coil cleaner
9. 1 ea. Base Support: Casters, with levelers, standard
10. 1 ea. Interior: Stainless steel, in lieu of standard black
11. 1 ea. Exterior: Wilsonart® or Formica® PREMIUM laminates FEC to coordinate color selection with Architect
12. 1 ea. Lower front panel: Black, standard
13. 1ea Left end panel: Full with mirrored interior, vinyl edging, standard
14. 1 ea. Right end panel: Full with mirrored interior, vinyl edging, standard
15. 1 ea. Back Panel: Rear loading hinged doors, locking
16. 1 ea. Digital Fahrenheit thermometer, standard
17. 1 ea. Add Lights (LED) to standard shelves (2)
18. 1 ea. Roll-down security cover, locking (requires two end panels (full or cutaway) per

case) but CANNOT be used with Case to Case acrylic end panel) (must be chosen when case is ordered)

### 4.4 Item 13 – Tray Lowerators - One Lot (1 Lot) Required)

A. Piper Products/Servolift Eastern Model PT/1014MO Dimensions: 36.13(h) x 14.94(w) x 18.5(d) Mobile Tray Dispenser, solid bottom, self-leveling, single stack, holds (150) 10-3/4" x 15-1/8" trays, with corner bumpers, stainless steel all tubular frame, NSF. Provide each with the following:
   1. 1-year warranty parts and labor
   2. 1 set Model -WB Wheel brakes (set of 2)
   3. FEC to coordinate tray size with Owner

### 4.5 Item 14 – Milk Coolers – Two (2) Required

A. Continental Refrigerator Model MC3NSSD Dimensions: 47(h) x 34(w) x 33(d) Milk Cooler, 34" long, dual access, forced air cooling, (8) 13" x 13" x 11" or (4) 19" x 13" x 11" crate capacity, door cylinder security locks, electronic control with digital display, hi-low alarm, hi/low temperature alarm, stainless steel interior & exterior, floor drain, (4) 5" swivel casters with front locking brakes, R290 Hydrocarbon refrigerant, 1/4 HP, cETLus, NSF. Provide each with the following:
   1. Standard warranty: 3-year parts and labor; additional 4-year compressor part
   2. 115v/60/1-ph, 5.7 amps, cord, NEMA 5-15P, standard
   3. Custom finishes of laminate or powder coating. FEC to coordinate color selection. Must be factory installed
   4. Modify evaporator for rear loading

### 4.6 Item 15 - 4 Well Hot Food Unit – One (1) Required

A. Piper Products/Servolift Eastern Model 4-HF Per Drawing #7177 Dimensions: 36(h) x 60(w) x 28(d)Elite 500 Hot Food Unit, electric, 60"L x 36"H, (4) sealed wells with 1000w element with thermostatically controlled each, mobile, modular design with interlocking mechanism, 14 gauge stainless steel top, 20 gauge stainless steel front & end panels, 18 gauge stainless steel bottom shelf, manifold drains standard, 5" swivel plate casters (2 with brakes), 4kW, NSF, UL. Provide with the following:
   1. 1 ea. 1-year warranty parts and labor
   2. 1 ea. 208v/60/1-ph, 19.2 amps, 4000 watts, NEMA 6-30P
   3. 1 ea. Manifold drains, standard
   4. 1 ea. Model JC Unit to include 14-gauge stainless steel "J" channel cord chase to keep cords for interconnected wired units (IWU) off the floor
   5. 1 ea. Model FLP Filler Strips, for Elite systems
   6. 1 ea. Model HD-60 Hinged doors for (4) openings Elite system
   7. 1 ea. Model LD Locks, for doors for Elite system
   8. 1 ea. Model FRMAD-60 Formica laminate with doors, for Elite systems. FEC to coordinate color selection with Architect
   9. 1 ea. Model SRTS-60 Tray slide for Elite system, 12" solid ribbed, heavy gauge stainless steel, for (4) openings - 60"W

10. 1 ea. Model ME Mitered end for tray slide for Elite system
11. 1 ea. Model TURN DOWN Modified turn down with special interlocks to connect 2 different height counters.
12. 1 ea. Model PG MOUNT Mounting of other manufacturer's sneeze guard.
13. ***ELECTRICAL TO EXIT OPERATOR RIGHT BACK LEG. ***
14. Item 16 PMG Guard to be provided by FEC and installed by Piper.

**4.7 Item 16 - Breath Protector – One (1) Required**

A. Premier Metal & Glass Model TM2S-A – Per drawing #46413 1" OD gearless adjustable food shield with top shelf, rear supports and slanted front support; 3/8" clear tempered glass with polished edges and radius corners; both end panels included (fixed); surface mounting option; no heat/light included brushed stainless finish; approx. 60" cl length; approx. 220 lbs. ea. (2 end and 1 center supports) fully adjustable single tier to protect item #15
1. FEC to ship to Piper for factory installation

**4.8 Item 17 - Solid Top Unit – One (1) Required**

A. Piper Products/Servolift Eastern Model 4-ST-MOD Per Drawing #7177 Dimensions: 36(h) x 60(w) x 28(d) Elite Utility Serving Counter, 60"L x 36"H, mobile modular design with interlocking mech., 14 gauge stainless steel top, 20 gauge stainless steel front & end panels, 18 gauge stainless steel undershelf, 5" casters, NSF, MODIFIED TO 34"w. Provide with the following:
1. 1 ea. 1-year warranty parts and labor
2. 1 ea. "Petite Elite" 30" high in lieu of standard height
3. 1 ea. Model SOUT Single Outlet, 120V for Elite system, 5-15R FOR ITEM 5 DELFIELD N8242-2FTP (8 AMPS)
4. 1 ea. Model JC Unit to include 14-gauge stainless steel "J" channel cord chase to keep cords for interconnected wired units (IWU) off the floor
5. 1 ea. Model FLP Filler Strips, for Elite systems
6. 1 ea. Model HD-60 Hinged doors for (4) openings Elite system
7. 1 ea. Model LD Locks, for doors for Elite system
8. 1 ea. Model FRMAD-60 Formica laminate with doors, for Elite systems. FEC to coordinate color selection with Architect
9. 1 ea. Model SRTS-60 Tray slide for Elite system, 12" solid ribbed, heavy gauge stainless steel, for (4) openings - 60"W
10. 1 ea. Model INSTALL PACKAGE INSTALL PACKAGE - to include cut-out in the counter top, install for the drop-in provided by FEC, electrical hook-up, reinforced top, and louvered panels if required. ***Drop-in to be provided by FEC.***
11. Item 5 Delfield N8242-2FTP to be provided by FEC and installed by Piper.

**4.9 Item 18 - Snack Racks (By Owner) – Two (2)**

**4.10 Item 19 - Ice Cream Merchandiser – One (1) Required**

A. Master-Bilt Products Model MSC-31AN Dimensions: 33.5(h) x 31(w) x 27.38(d) COLDIN-3™

Display Freezer, 8.3 gross cu. ft. (6.0 net cu. ft.), curved tempered glass sliding lids, (3) standard baskets, (3) basket dividers, external analog thermometer and lock, white zinc-coated enamel steel exterior, painted white steel interior with LED lighting, defrost water drain, temperature range -18° to 10°F (-27° to -12° C), self-contained refrigeration, heavy duty 2" casters, R290 Hydrocarbon refrigerant, 1/3 hp, 115v/60/1-ph, 1.3 amps, 6-1/2' cord, NEMA 5-15P, cETLus, ETL-Sanitation. Provide with the following:

1. 1 ea. 1-year parts and labor warranty

### 4.11 Item 20 - False Front Unit – One (1) Required

A. Piper Products/Servolift Eastern Model C-3-FF-MOD Per drawing #7177 Dimensions: 30(h) x 36(w) x 4(d). Elite False front, 36" long, 4" wide, 30" high, stainless steel construction, MODFIED TO 34"L. Provide with the following:

1. 1 ea. 1-year warranty parts and labor
2. 1 ea. "Petite Elite" 30" high in lieu of standard height
3. 1 ea. Model FLP Filler Strips, for Elite systems
4. 1 ea. Model FRMA-32 Formica laminate without doors, for Elite systems
5. 1 ea. Model SRTS-32 Tray slide for Elite system, 12" solid ribbed, heavy gauge stainless steel, for (2) openings - 32"W
6. ***FEC to Verify length with item# 19. ***

### 4.12 Item 21 - Corner Solid Top Unit – One (1) Required

A. Piper Products/Servolift Eastern Model 2-CR Per drawing #7177 Dimensions: 36(h) x 28(w) x 28(d)Elite Corner Serving Counter, 28"L x 36"H, mobile modular design with interlocking mech., 14 gauge stainless steel top, 20 gauge stainless steel front & end panels, 18 gauge stainless steel undershelf, 5" casters, NSF. Provide with the following:

1. 1 ea. 1-year warranty parts and labor
2. 1 ea. "Petite Elite" 30" high in lieu of standard height
3. 1 ea. Model JC Unit to include 14-gauge stainless steel "J" channel cord chase to keep cords for interconnected wired units (IWU) off the floor
4. 1 ea. Model FLP Filler Strips, for Elite systems
5. 1 ea. Model HD-28 Hinged doors for (2) openings Elite system
6. 1 ea. Model LD Locks, for doors for Elite system
7. 1 ea. Model FRMAD-28 Formica laminate with doors, for Elite systems. FEC to coordinate color selection with Architect
8. 2 ea. Model SRTS-28 Tray slide for Elite system, 12" solid ribbed, heavy gauge stainless steel, for (2) openings - 28"W
9. 2 ea. Model ME Mitered end for tray slide for Elite system

### 4.13 Item 22 - Cashiers Station - One (1) Required

A. Piper Products/Servolift Eastern Model 2-CD Per Drawing #7177 Dimensions: 36(h) x 30(w) x 28(d) Elite Cashier's Serving Counter, 30"L x 36"H, mobile modular design with interlocking mech., 14 gauge stainless steel top with register cord hole, locking drawer, 20 gauge stainless steel front & end panels, 5" casters. Provide with the following:

1. 1 ea. 1-year warranty parts and labor

2. 1 ea. Model DOUT Duplex Outlet, 120V for Elite system for item# 1
3. 1 ea. Model JC Unit to include 14-gauge stainless steel "J" channel cord chase to keep cords for interconnected wired units (IWU) off the floor
4. 1 ea. Model FLP Filler Strips, for Elite systems
5. 1 ea. Model TFR Tubular foot rest-cashier unit, Elite systems
6. 1 ea. Model FRMA-30 Formica laminate without doors, for Elite systems. FEC to coordinate color selection with Architect
7. 1 ea. Model SRTS-30-28"AFF Tray slide for Elite system, 12" solid ribbed, heavy gauge stainless steel, for (2) openings - 30"W, MOUNTED 28"AFF
8. 1 ea. Model TURN DOWN Modified turn down with special interlocks to connect 2 different height counters.

**4.14 Existing Equipment**

A. It is the responsibility of this contractor to fully remove all existing foodservice equipment from the old Middle/High School Kitchen, this includes exhaust hoods and walk-in freezer & refrigeration systems (electric, plumbing & HVAC disconnections by related trades). Refer to 3.3 of this specification for existing equipment requirements.

**4.15 Reused Existing Equipment:**

A. This Kitchen Equipment Contractor (KEC) shall be responsible for identifying, tagging and/or removing all existing equipment, which will be reused. Verify and coordinate specific equipment with these plans and specifications, and the Owner. This shall include items existing, and the associated work necessary, at the time of the signing of the Contract for the Foodservice Equipment section; and shall not include any item(s) added, changed, or damaged (by other than the Kitchen Equipment Contractor (KEC)) after the signing; except to the extent of work which would have been included with the original existing item(s).

B. Remove from existing locations, clean and renovate as noted below, store and re-install existing equipment to be reused, in the new locations as shown on plans; ready for utility connections, as appropriate. Existing equipment to be reused, with utility connections, shall be removed after disconnection as noted in below paragraph.

C. Do work in cooperation with Owner, so that normal functioning of services is minimally interrupted. Coordinate all removal and replacement scheduling with the Construction Scheduling Manager (or similar responsible party), to ensure adequate time to complete the necessary work. If adequate time to properly relocate and reset the existing items and complete all cleaning and repair will not be available, due to continuing use of the existing item(s), or the allotted construction time; contact the Owner and obtain a written agreement as to what work is to be deleted or delayed; such as cleaning, repainting, or repairs.

D. All surface dirt, grease, oil, food residues, ingredients, extraneous matter and other soiling materials shall be removed in order to obtain minimum acceptable sanitation and food service standards. Thorough final rinsing of all cleaning agents shall be at a minimum temperature of 180 degrees F where possible without damage to equipment or controls. Otherwise, use USDA approved cleaning agents and/or cleaning agents, which are acceptable for use with commercial food service equipment. This shall include all exterior surfaces of the existing equipment to be reused, and interior work surfaces such as inside oven compartments, fryer vats, ware washers, etc.

E. All painted items with major paint blemishes shall be sanded, primed, and repainted to match the original color and type paint. Primer and paint shall be of a type approved for use with commercial food service equipment. All controls, lights, view windows, non-painted parts, etc. shall be protected as recommended by the Manufacturer. Minor paint blemishes shall be touched-up in a professional manner. This work shall be included in the Bid Submittal, as a separate line cost, at the end of the Bid Submittal.

F. Replace or repair minor broken parts to produce a cleanable and functional item, where possible. Repairs and/or parts shall be for minor required items such as control knobs, handles, pilot lamps, belts, oil changes, minor adjustments and recalibrations, etc. This shall not include addition or replacement of any wearing components such as cutters, blades, etc.; or any accessory components such as mixer beaters, hooks, whips, etc., except for presently existing accessory components which are broken and nonfunctional, or as noted in the itemized specifications.

**4.16 Existing Conditions:**

A. It is the responsibility of this contractor to fully review the existing conditions of the building and the new kitchen. This contractor shall be familiar with access to the kitchen location, including equipment access by elevators, stairwells, corridors, openings, including access around the exterior of the building for a crane or hoisting equipment (if required). It will be the responsibility of this contractor to coordinate equipment installation with the owner, CM, GC, etc.…

**4.17 Plumbing of Equipment**

A. The plumbing and food service equipment contractors are to comply with 1370-a and 1110, Subpart 67-4 of Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York. All outlet fixtures used for drinking or cooking shall be tested by Owner prior to being put into service. All test results in exceedance of the action level shall require the fixture to be replaced until satisfactory test results are obtained at no additional cost to Owner."

## PART 5 - DETAILS OF CONSTRUCTION

### 5.1 DETAIL DRAWINGS

A. The following details are a part of these specifications and shall be referred to for additional design requirements: None

END OF SECTION 11 4000

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**SECTION 12 2400**
**WINDOW SHADES**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Interior manual roller shades.

### 1.02 RELATED REQUIREMENTS

A. Section 06 1000 - Rough Carpentry: Concealed wood blocking for attachment of headrail brackets.

B. Section 26 2726 - Wiring Devices: Finish requirements for wall controls specified in this section.

### 1.03 REFERENCE STANDARDS

A. NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films 2023, with Errata.

B. WCMA A100.1 - Standard for Safety of Window Covering Products 2022.

### 1.04 ADMINISTRATIVE REQUIREMENTS

A. Sequencing:
   1. Do not fabricate shades until field dimensions for each opening have been taken with field conditions in place.
   2. Do not install shades until final surface finishes and painting are complete.

### 1.05 SUBMITTALS

A. Product Data: Provide manufacturer's standard catalog pages and data sheets, including materials, finishes, fabrication details, dimensions, profiles, mounting requirements, and accessories.

B. Shop Drawings: Include shade schedule indicating size, location and keys to details, head, jamb and sill details, mounting dimension requirements for each product and condition, and operation direction.

C. Selection Samples: Include fabric samples in full range of available colors and patterns.

D. Operation and Maintenance Data: List of all components with part numbers, sources of supply, and operation and maintenance instructions; include copy of shop drawings.

E. Warranty: Submit sample of manufacturer's warranty and documentation of final executed warranty completed in Owner's name and registered with manufacturer.

### 1.06 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing work of this type with minimum 5 years of documented experience with shading systems of similar size and type.

### 1.07 MOCK-UP

A. Mock-Up: Provide full size mock-up of window shade system complete with selected shade fabric including example of seams and batten pockets when applicable.
   1. Obtain Architect's approval of light and privacy characteristics of fabric prior to fabrication.
   2. Full-sized mock-up may become part of the final installation.

### 1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver shades in manufacturer's unopened packaging, labeled to identify each shade for each opening.

B. Handle and store shades in accordance with manufacturer's recommendations.

## 1.09 FIELD CONDITIONS

A. Do not install products under environmental conditions outside manufacturer's absolute limits.

## 1.10 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

B. Provide manufacturer's warranty from Date of Substantial Completion, covering the following:
   1. Shade Hardware: One year.
   2. Fabric: One year.
   3. Aluminum and Steel Coatings: One year.

# PART 2 PRODUCTS

## 2.01 MANUFACTURERS

A. Interior Manually Operated Roller Shades:
   1. Basis of Design: Draper, Inc; Clutch Operated FlexShade: www.draperinc.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

B. Interior Motorized Roller Shades, Motors and Motor Controls:
   1. Basis of Design: Draper, Inc; Motorized FlexShade: www.draperinc.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

## 2.02 ROLLER SHADES

A. General:
   1. Provide shade system components that are easy to remove or adjust without removal of mounted shade brackets.
   2. Provide shade system that operates smoothly when shades are raised or lowered.

B. Interior Roller Shades - Basis of Design: Draper, Inc; Clutch Operated FlexShade: www.draperinc.com/#sle.
   1. Description: Single roller, manually operated fabric window shade system complete with mounting brackets, roller tubes, hembars, hardware, and other components necessary for complete installation.
      a. Mounting: Wall mounted.
   2. Mounting Hardware: As recommended by manufacturer for mounting indicated and to accommodate shade fabric roll-up size and weight.
   3. Roller Tubes: As required for type of shade operation; designed for removal without removing mounting hardware.
      a. Material: Extruded aluminum or steel, with wall thickness and material selected by manufacturer.
      b. Size: As recommended by manufacturer; selected for suitability for installation conditions, span, and weight of shades.
   4. Hembars: Designed to maintain bottom of shade straight and flat, selected from manufacturer's standard options.
   5. Manual Operation:
      a. Clutch Operator: Manufacturer's standard material and design, permanently lubricated.
      b. Drive Chain: Continuous loop stainless steel beaded ball chain, 95 lb minimum breaking strength. Provide upper and lower limit stops.
      c. Chain Retainer:
         1) Chain tensioning device complying with WCMA A100.1.
         2) Manufacturer's standard clip.
   6. Accessories:
      a. Light Gap Reduction Channels: Provide extruded aluminum channels to reduce light leakage at sides of shades.

b. Fascia: Extruded aluminum, size as required to conceal shade mounting, attachable to mounting end caps, without exposed fasteners; clear anodized finish.
c. End Cap Covers: Match fascia or headbox finish.
d. Fasteners: Noncorrosive, and as recommended by shade manufacturer.

**2.03 SHADE FABRIC**

A. Fabric - Type A: Nonflammable, color-fast, impervious to heat and moisture, and able to retain its shape under normal operation. Openness: 3%.
   1. Manufacturers:
      a. Phifer, Inc: Sheerweave- Style# 2410- Color: match owner's exisiting. www.phifer.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.
   2. Material: Vinyl coated polyester.

B. Fabric-Type B- non-flammable color-fast, impervious to heat and moisture, able to retain its shape under normal operation. Openness: Blackout.
   1. Manufacturers:
      a. Draper, Inc.; "Aspen" series- Color: Linen Light- Blackout.
      b. Substitutions: See Section 01 6000- product Requirements.

C. Locations: Provide Fabric type A in all locations other than Art Room 300, which will be provided with Fabric Type-B.

**2.04 ROLLER SHADE FABRICATION**

A. Field measure finished openings prior to ordering or fabrication.

B. Dimensional Tolerances: Fabricate shades to fit openings within specified tolerances.
   1. Vertical Dimensions: Fill openings from head to sill with 1/2 inch space between bottom bar and window stool.
   2. Horizontal Dimensions - Inside Mounting: Fill openings from jamb to jamb.

C. At openings requiring continuous multiple shade units with separate rollers, locate roller joints at window mullion centers; butt rollers end-to-end.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Examine finished openings for deficiencies that may preclude satisfactory installation.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Start of installation shall be considered acceptance of substrates.

**3.02 PREPARATION**

A. Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under the project conditions.

B. Coordinate with window installation and placement of concealed blocking to support shades.

**3.03 INSTALLATION**

A. Install in accordance with manufacturer's instructions and approved shop drawings, using mounting devices as indicated.

B. Adjust level, projection, and shade centering from mounting bracket. Verify there is no telescoping of shade fabric. Ensure smooth shade operation.

**3.04 CLEANING**

A. Clean soiled shades and exposed components as recommended by manufacturer.

B. Replace shades that cannot be cleaned to "like new" condition.

## 3.05 CLOSEOUT ACTIVITIES

A. See Section 01 7800 - Closeout Submittals, for closeout submittals.

B. Demonstration: Demonstrate operation and maintenance of window shade system to Owner's personnel.

C. Training: Train Owner's personnel on operation and maintenance of system.
   1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
   2. Provide minimum of two hours training by manufacturer's authorized personnel at location designated by the Owner.

## 3.06 PROTECTION

A. Protect installed products from subsequent construction operations.

B. Touch-up, repair, or replace damaged products before Substantial Completion.

## 3.07 MAINTENANCE

A. See Section 01 7000 - Execution and Closeout Requirements, for additional requirements relating to maintenance service.

**END OF SECTION**

**SECTION 12 3200**
**MANUFACTURED WOOD CASEWORK**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Manufactured standard and custom plastic-laminate-clad casework, with cabinet hardware.

B. Special purpose units.

C. Countertops.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6000 - Product Requirements: Requirements for sustainably harvested wood.

B. Section 01 6116 - Volatile Organic Compound (VOC) Content Restrictions: VOC limitations for adhesives and sealants.

### 1.03 DEFINITIONS

A. Exposed: Portions of casework visible when drawers and cabinet doors are closed, including end panels, bottoms of cases more than 42 inches above finished floor, tops of cases less than 72 inches above finished floor and all members visible in open cases or behind glass doors.

B. Semi-Exposed: Portions of casework and surfaces behind solid doors, tops of cases more than 72 inches above finished floor and bottoms of cabinets more than 30 inches but less than 42 inches above finished floor.

C. Concealed: Sleepers, web frames, dust panels and other surfaces not generally visible after installation and cabinets less than 30 inches above finished floor.

### 1.04 REFERENCE STANDARDS

A. AWI (QCP) - Quality Certification Program Current Edition.

B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition 2014, with Errata (2016).

C. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards 2021, with Errata.

D. BHMA A156.9 - Cabinet Hardware 2020.

E. ISFA 2-01 - Classification and Standards for Solid Surfacing Material 2013.

F. NEMA LD 3 - High-Pressure Decorative Laminates 2005.

### 1.05 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Conduct a preinstallation meeting one week prior to the start of the work of this section; require attendance by all affected installers.

B. Keying Conference: Conduct conference prior to ordering keys. Incorporate conference decisions into keying submittal.

### 1.06 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Shop Drawings: Indicate casework types, sizes, and locations, using large scale plans, elevations, and cross sections. Include rough-in and anchors and reinforcements, placement dimensions and tolerances, clearances required, and keying information.

C. Samples for Finish Selection: Fully finished, for color selection. Minimum sample size: 2 inches by 3 inches.
   1. Plastic laminate samples, for color, texture, and finish selection.
   2. Solid surface samples, for color, texture, and finish selection.

D. Manufacturer's Qualification Statement.

E. Installer's Qualification Statement.

F. Maintenance Data: Manufacturer's recommendations for care and cleaning.

G. Finish touch-up kit for each type and color of materials provided.

**1.07 QUALITY ASSURANCE**

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

B. Quality Certification: Comply with AWI (QCP) woodwork association quality certification service/program in accordance with requirements for work specified in this section.
   1. Provide labels or certificates indicating that the installed work complies with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade or grades specified.
   2. Provide designated labels on shop drawings as required by certification program.
   3. Provide designated labels on installed products as required by certification program.
   4. Submit certifications upon completion of installation that verifies this work is in compliance with specified requirements.
   5. Replace, repair, or rework all work for which certification is refused.

C. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience and approved by manufacturer.

**1.08 DELIVERY, STORAGE, AND HANDLING**

A. Protect items provided by this section, including finished surfaces and hardware items during handling and installation. For metal surfaces, use polyethylene film or other protective material standard with the manufacturer.

B. Acceptance at Site:
   1. Do not deliver or install casework until the conditions specified under Part 3, Examination Article of this section have been met. Products delivered to sites that are not enclosed and/or improperly conditioned will not be accepted if warping or damage due to unsatisfactory conditions occurs.

C. Storage:
   1. Store casework in the area of installation. If necessary, prior to installation, temporarily store in another area, meeting the environmental requirements specified under Part 3, "Site Verification of Conditions" Article of this section.

**1.09 MOCK-UPS**

A. Provide full size base cabinet complete with drawers, door, adjustable shelf and countertop.

B. See Section 01 4000 - Quality Requirements for additional requirements.

C. Locate where directed.

D. Mock-up may remain as part of the work.

**1.10 WARRANTY**

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Correct defective Work within a five year period after Date of Substantial Completion, at no additional cost to Owner. Defects include, but are not limited to:
   1. Ruptured, cracked, or stained finish coating.
   2. Discoloration or lack of finish integrity.
   3. Cracking or peeling of finish.
   4. Delamination of components.
   5. Failure of adhesives.
   6. Failure of hardware.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Plastic Laminate Casework:
   1. Basis of Design: Case Systems: www.casesystems.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

### 2.02 CASEWORK, GENERAL

A. Quality Standard: AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.

B. Plastic Laminate Faced Cabinets: Custom Grade.

### 2.03 FABRICATION

A. Assembly: Shop assemble casework items for delivery to site in units easily handled and to permit passage through building openings.

B. Construction: As required for selected grade.

C. Structural Performance: Safely support the following minimum loads:
   1. Base Units: 500 pounds per linear foot across the cabinet ends.
   2. Suspended Units: 300 pounds static load.
   3. Drawers: 125 pounds, minimum.
   4. Hanging Wall Cases: 300 pounds.
   5. Shelves: 100 pounds, minimum.

D. Seismic Performance: Casework, including attachments to other work, able to withstand the effects of earthquake motions determined according to ASCE/SEI 7.
   1. Component Importance Factor: 1.0.

E. Fittings and Fixture Locations: Cut and drill components for fittings and fixtures.

F. Hardware Application: Factory-machine casework members for hardware that is not surface applied.

G. Access Panels: Where indicated, for maintenance of utility service and mechanical and electrical components.

H. Removable back panels on indicated base cabinets. Provide partial height back panels at sink cabinets.

I. Fixed panels at backs of open spaces between base cabinets.

J. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.

K. Scribes and Fillers: Panels of matching construction and finish, for locations where cabinets do not fit tight to adjacent construction.

L. Countertop Panel-Type Supports: Materials similar to adjacent casework, 1-1/2 inch in width, with front-to-back and toe space dimensions matching base cabinet. Designed to be secured in a concealed fashion to countertop material. Include two leveling devices per support panel.

### 2.04 PLASTIC-LAMINATE-CLAD CASEWORK

A. Plastic-Laminate-Clad Casework: Solid wood and wood panel construction; each unit self-contained and not dependent on adjacent units or building structure for rigidity; in sizes necessary to avoid field cutting except for scribes and filler panels. Include adjustable levelers for base cabinets.
   1. Style: Flush overlay. Ease doors and drawer fronts slightly at edges.
   2. Cabinet Nominal Dimensions: Unless otherwise indicated, provide cabinets of widths and heights indicated on drawings, and with following front-to-back dimensions:
      a. Base Cabinets: 24 inches.
      b. Tall Cabinets: 24 inches.

c. Wall Cabinets: 13 inches.

3. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline.
   a. Finish: Matte or suede, gloss rating of 5 to 20.
   b. Surface Color and Pattern: As selected by Architect from manufacturer's full line.
   c. Exposed Interior Surfaces: Thermally fused laminate.
      1) Color: White.
   d. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
   e. Cap exposed plastic laminate finish edges with material of same finish and pattern.

## 2.05 COUNTERTOPS

A. Fabricate in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 11 - Countertops, Custom Grade, unless otherwise noted.

B. Plastic Laminate Countertops: High pressure decorative laminate sheet bonded to substrate.
   1. Manufacturer's standard configuration for exposed edges, back and end splashes.
   2. Fabricate in accordance with manufacturer's standard requirements.

C. Solid Surfacing Countertops: Solid surfacing sheet or plastic resin casting over continuous substrate.
   1. Solid Surfacing Sheet and Plastic Resin Castings: Complying with ISFA 2-01 and NEMA LD 3; acrylic or polyester resin, mineral filler, and pigments; homogenous, non-porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
   2. Manufacturer's standard configuration for exposed edges, back and end splashes.
   3. Fabricate in accordance with manufacturer's standard requirements.

## 2.06 SPECIAL PURPOSE UNITS

A. Musical Instrument Storage Special Units.
   1. Basis of Design Manufacturer: Wenger.
   2. Style: "UltraStor" series without doors.
   3. Primary Construction: Plastic-laminate clad units.
      a. Design: Modular units with through-bolted fastening for reconfigurable assembly.
      b. Cabinet Hardware: Manufacturer's standard, types as required for drawers, doors, shelves, levelers and similar items.
      c. Finish, Surface Color and Pattern: As selected by Architect from manufacturer's standard line.
   4. Large and Small Instrument Storage Units: Manufacturer's standard; sizes and configurations indicated on drawings.
      a. Basis of Design: Model "UltraStor".
         1) Shelves: Perforated shelves to allow air circulation. High-density, one-piece, blow-molded or polyethylene, with radiused front edge.
   5. Stringed Instrument Storage Units: Manufacturer's standard; sizes and configurations indicated on drawings.

## 2.07 CABINET HARDWARE

A. Manufacturer's standard types, styles and finishes.

B. Comply with BHMA A156.9 requirements.

C. Locks: Provide locks on casework drawers and doors where indicated. Lock with 5 pin cylinder and 2 keys per lock.
   1. Hinged Doors: Cam type lock, bright chromium plated over nickel on base material.
   2. Tall Hinged Doors: Three-point latching system.
   3. Keying: Key locks alike within a space; key each room separately.
   4. Master Key System: All locks operable by master key.

D. Shelves in Cabinets:
   1. Shelf Standards and Rests: Vertical standards with rubber button fitted rests, satin chromium plated over nickel on base material.

E. Swinging Doors: Hinges, pulls, and catches.
   1. Hinges: Visible, number as required by referenced standards for width, height, and weight of door.
      a. Visible Hinges: Installed on framed cabinet face, and on door face, bright chromium plated over nickel on base material.
   2. Pulls: Chrome wire pulls, 4 inches wide.
   3. Catches: Magnetic.

F. Drawers: Pulls and slides.
   1. Pulls: Chrome wire pulls, 4 inches wide.
   2. Slides: Steel, full extension arms, ball bearings; self-closing; capacity as recommended by manufacturer for drawer height and width.

**2.08 MATERIALS**

A. Adhesives Used for Assembly: Comply with VOC requirements for adhesives and sealants; see Section 01 6116.

B. Wood-Based Materials:
   1. Certified as sustainably harvested; see Section 01 6000.
   2. Solid Wood: Air-dried to 4.5 percent moisture content, then tempered to 6 percent moisture content before use.
   3. Composite Wood Panels: Containing no urea-formaldehyde resin binders.

C. Concealed Solid Wood or Plywood: Any species and without defects affecting strength or utility.

D. High Pressure Decorative Laminate (HPDL): NEMA LD 3, types as recommended for specific applications. complying with Grade requirements, and standard with the manufacturer.

E. Thermally Fused Laminate (TFL): Melamine resin, NEMA LD 3, Type VGL laminate panels.

**2.09 ACCESSORIES**

A. Plastic Edge Banding: Extruded PVC, convex shaped; smooth finish; self locking serrated tongue; of width to match component thickness.
   1. Color: As selected by Architect from manufacturer's standard range.
   2. Use at exposed edges.
   3. Use at exposed shelf edges.

B. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; galvanized or chrome-plated finish in concealed locations and stainless steel or chrome-plated finish in exposed locations.

C. Concealed Joint Fasteners: Corrosion-resistant, standard with manufacturer.

D. Grommets: Standard plastic, painted metal, or rubber grommets for cut-outs, in color to match adjacent surface.

E. Sealant for Use in Casework Installation:

**PART 3 EXECUTION**

**3.01 PREPARATION**

A. Large Components: Ensure that large components can be moved into final position without damage to other construction.

**3.02 EXAMINATION**

A. Site Verification of Environmental Conditions:

1. Do not deliver casework until the following conditions have been met:
    a. Building has been enclosed (windows and doors sealed and weather-tight).
    b. An operational HVAC system that maintains temperature and humidity at occupancy levels has been put in place.
    c. Ceiling, overhead ductwork, piping, and lighting have been installed.
    d. Installation areas do not require further “wet work” construction.

B. For Base Cabinets Installation: Examine floor levelness and flatness of installation space. Do not proceed with installation if encountered floor conditions required more than 1/2 inch leveling adjustment. When installation conditions are acceptable, for each space, establish the high point of the floor. Set and make level and plumb first cabinet in relation to this high point.

C. For Wall Cabinets Installation: Examine wall surfaces in installation space. Do not proceed with installation if the following conditions are encountered:
1. Maximum variation from plane of masonry wall exceeds 1/4 inch in 10 ft and 1/2 inch in 20 ft or more, and/or maximum variation from plumb exceeds 1/4 inchper story.
2. Maximum Variation of finished gypsum board surface from true flatness: 1/8 inch in 10 feet in any direction.

D. Verify adequacy of support framing and anchors.

E. Verify that service connections are correctly located and of proper characteristics.

**3.03 INSTALLATION**

A. Perform installation in accordance with manufacturer's instructions.

B. Use anchoring devices to suit conditions and substrate materials encountered. Use concealed fasteners to the greatest degree possible. Use exposed fasteners only where allowed by approved shop drawings, or where concealed fasteners are impracticable.

C. Set casework items plumb and square, securely anchored to building structure.

D. Align cabinets to adjoining components, install filler and/or scribe panels where necessary to close gaps.

E. Fasten together cabinets in continuous runs, with joints flush, uniform and tight. Misalignment of adjacent units not to exceed 1/16 inch. In addition, do not exceed the following tolerances:
1. Variation of Tops of Base Cabinets from Level: 1/16 inch in 10 feet.
2. Variation of Faces of Cabinets from a True Plane: 1/8 inch in 10 feet.
3. Variation of Adjacent Surfaces from a True Plane (Lippage): 1/32 inch.
4. Variation in Alignment of Adjacent Door and Drawer Edges: 1/16 inch.

F. Base Cabinets: Fasten cabinets to service space framing and/or wall substrates, with fasteners spaced not more than 16 inches on center. Bolt adjacent cabinets together with joints flush, tight, and uniform.

G. Install hardware uniformly and precisely.

H. Countertops: Install countertops intended and furnished for field installation in one true plane, with ends abutting at hairline joints, and no raised edges.

I. Replace units that are damaged, including those that have damaged finishes.

**3.04 ADJUSTING**

A. Adjust operating parts, including doors, drawers, hardware, and fixtures to function smoothly.

**3.05 CLEANING**

A. Clean casework and other installed surfaces thoroughly.

**3.06 PROTECTION**

A. Do not permit finished casework to be exposed to continued construction activity.

B. Protect casework and countertops from ongoing construction activities. Prevent workmen from standing on, or storing tools and materials on casework or countertops.

C. Repair damage, including to finishes, that occurs prior to Date of Substantial Completion, using methods prescribed by manufacturer; replace units that cannot be repaired to like-new condition.

**3.07 REFERENCE NUMBERS TO CASE SYSTEMS MODEL NUMBERS:**

A. Casework Tags on drawings for Base Cabinets:
   1. Type 101- Blind Corner Cabinet- (B0210 or B0220)
   2. Type 152- Double Door Sink Base Cabinet- (B2100)
   3. Type 154C- Accessible Sink Base- (D1000)
   4. Type 211- Base Cabinet Single Door with Drawer (B3110)
   5. Type 222-Base Cabinet Double Door with 2 drawers (B3100)
   6. Type 260- Base Cabinet with (5) Drawers (B4050)

B. Casework Tags on drawings for Wall Cabinets:
   1. Type 301- Single Door (W0110)
   2. Type 302- Double Door (W0100)
   3. Type 309- Blind Corner Cabinet (W0210 or W0220)
   4. Type 324- Double Door with Glass (W0300)

C. Casework Tags on drawings for Tall cabinets:
   1. Type 400- Open Shelving with (4) adjustable shelves (T0030)
   2. Type 402- Double Door with (4) adjustable shelves (T0100)
   3. Type 424- Tall Storage with Doors (T0430)
   4. Type 402 (Kiln Room 300B) -Damp Storage (T0550)
   5. Type 444- Mail Slots (H1700)
   6. Type 531- Teacher Wardrobe (T2580)

**END OF SECTION**

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**SECTION 12 3216**
**MANUFACTURED PLASTIC LAMINATE CASEWORK**

## PART 1 – GENERAL

### 1.01 SUMMARY

A. Related Documents:
   1. Drawings and provisions of the contract including General Conditions Supplementary Conditions and Division 1, apply to this section.

B. Section Includes:
   1. Furnish and install plastic laminate casework and accessories as shown and listed on drawings and specified herein. Includes all countertops, sink cutouts, splashes, supports, shelving, and filler panels necessary for a complete casework installation.

C. Related Requirements to be Performed by Others:
   1. Division 06 Section: “Rough Carpentry” for blocking within walls to adequately support casework.
   2. Division 06 Section: “Finish Carpentry”/Millwork.
   3. Division 07 Section: “Preformed Joint Seals” for caulking of casework and/or countertops to abutting walls.
   4. Division 08 Section: “Finish Hardware” for cabinet locks keyed or master keyed to building locks.
   5. Division 09 Section: “Resilient Base and Accessories” for resilient base applied to manufactured casework.
   6. Division 22 Section: “Plumbing” for furnishing, installation, and hook-up of sinks, fixtures, outlets, strainers, tailpieces, traps, vacuum breakers, and stops shall be performed by the plumbing contractor to state and local codes. In all cases, sink cutouts shall be by the casework contractor.
   7. Division 23 Section: “Heating, Ventilating, and Air-Conditioning” for furnishings, installation, and final connections of all ductwork to range hoods and spray booths shall be by the HVAC contractor.
   8. Division 26 Section: “Electrical” for the electrical contractor to state and local codes shall perform electrical furnishing, installation, and final connections of wiring, conduit, and/or electrical items within casework.

### 1.02 REFERENCES

A. ANSI-A135: for all hardboard.

B. ANSI-A161.2-1998: for performance of fabricated high-pressure decorative laminate countertops.

C. ANSI-A208.1-2016: for grade M-3 mat-formed wood particleboard.

D. BHMA A156.9: for grade-1 hinge requirements.

E. NEMA 3 LD-2005: for performance requirements of high pressure laminates.

### 1.03 DEFINITIONS

A. Grain Direction:
   1. Wood grained and directionally grained laminates shall run vertically on doors, exposed cabinet ends, modesty panels, countertop supports and finished backs. Grain runs horizontally on drawer fronts, aprons and light valances.

B. Exposed Surfaces:

1. In casework, surfaces visible when drawers and opaque doors (if any) are closed; open cabinet interiors and interiors behind clear glass doors; exterior cabinet bottoms 42" or more A.F.F.; exterior cabinet tops 80" or less A.F.F. or seen from above; wall mounted shelving.
2. Exposed cabinet surfaces shall be: NEMA LD-3-2005 VGS High Pressure Decorative Laminate (HPDL).
    a. Choose from Formica, Wilsonart, Pionite and Nevamar non-premium, non-specialty laminates in Formica "58" finish, Wilsonart "60" or "38" matte finish and Nevamar "T" textured finish.

C. Semi-Exposed Surfaces:
1. In casework, surfaces that become visible when opaque doors are open or drawers are extended; bottoms of cabinets less than 42" A.F.F.; exterior cabinet tops more than 80" A.F.F. and not seen from above.
2. Semi-Exposed cabinet surfaces shall be: Low pressure decorative laminate (LPDL).
    a. Frosty white, natural almond or fashion grey.

D. Concealed Surfaces:
1. Exterior or interior surfaces that are covered or not normally exposed to view.
2. Surfacing material at manufacturer's option. No exposed (raw) cabinet surfaces are permitted.

**1.04 SUBMITTALS**

A. Shop Drawings:
1. Comply with Division 1.
2. Submit one digital copy of shop drawings, if not submitting pdf shop drawings, provide three sets of laser quality, 11 x 17 shop drawings consisting of:
    a. Finish, hardware, construction options selection sheet.
    b. Small scale floor plan showing casework in relation to the building.
    c. Large scale elevations and plan views.
    d. Cross-sections; service runs; locations of blocking within walls (blocking is done by others); rough-in requirements and, sink centerlines
3. Approved shop drawings to be returned to manufacturer by the contractor at least 60 days before production.
4. Architect must approve all items prior to fabrication and delivery of casework.
5. Manufacturer, Manufacturer's rep and Contractor verifies all critical building dimensions prior to fabrication.

B. Samples:
1. Submit one set of laminate color brochures from standard laminate manufacturers Wilsonart, Formica, Pionite, and Nevamar.
2. Submit one edge color sample chain.
3. Submit one set of interior colors samples.

C. LEED Submittals:
1. Not required. This project is not LEED certified.

D. AWI (Architectural Woodwork Institute) membership. Manufactured Plastic Laminate Casework manufacturer is to have current and active membership with AWI.

E. Warranty:
1. Provide sample warranty document stating specified terms as referenced in 1.8.

**1.05 QUALITY ASSURANCE**

A. Manufacturer Qualifications: Must have been engaged in the manufacture of institutional casework for a minimum of ten years.

## 1.06 DELIVERY, STORAGE, AND HANDLING

A. Delivery and Acceptance Requirements:
   1. Deliver casework once painting, and similar requirements have been completed that will not damage casework. This includes ensuring spaces are enclosed and weather tight.
   2. All casework shall be blanket wrapped for protection during shipping.

B. Storage and Handling:
   1. Casework must be protected from dust, dirt and/or other trades.
   2. Countertops are stacked, properly supported and spaced evenly to avoid warping. Large pieces are stacked first on the pallets with shorter pieces stacked on top.

## 1.07 SITE CONDITIONS

A. Ambient Conditions:
   1. Do not deliver or install the casework until concrete, masonry, and drywall/plaster work is dry; ambient relative humidity is maintained between 25 – 55% prior to delivery and throughout the life of installation; and the temperature is controlled above 55
   2. Casework shall not be stored or installed in non-climate controlled conditions.
   3. If ambient conditions are not met at the time of requested delivery, the general contractor or owner must provide the casework manufacturer a letter releasing manufacturer from any liability and responsibility from any warranty or damage resulting from not complying with required ambient conditions.

## 1.08 WARRANTY

A. The casework manufacturer shall offer a five year warranty to the owner against defective material and workmanship.
   1. The warranty specifically does not cover any product or hardware, which has been incorrectly installed, including poor climate conditions, exposed to excessive loads or abuse.
   2. All non-casework items supplied, but not manufactured, by the casework manufacturer including, but not limited to, sinks, fixtures, apparatus, fume hoods, keyboard trays, spray booths, lights, power outlets, and power strips shall be covered under the original manufacturers' warranty.

# PART 2– PRODUCTS

## 2.01 MANUFACTURERS

A. Basis of Design:
   1. Case Systems, 2700 James Savage Road, Midland, Michigan 48642 (989) 496-9510 and/or Case Systems approved dealers.

B. Substitution Limitations:
   1. Additional manufacturers may submit substitution requests in accordance with procurement substitution and/or substitution procedures, or provide a comparable product with the following support information detailed below:
      a. Written documentation stating specification compliance regarding construction, materials, and standard of quality and manufacturing techniques.
      b. Note all deviations to the drawings and/or specifications in writing.
      c. Provide the Architect with a full-scale base cabinet not less than ten days prior to bid date. The sample shall represent typical construction and materials for the product the casework manufacturer proposes, meeting the quality standards set forth by this specification. The sample may be impounded by the owner and retained until completion of the casework installation.

d. The owner, or its designated representative, reserves the right to reject any proposal that in his opinion fails to meet the criteria established by this specification. Such a decision shall be final.

**2.02 MATERIALS**

A. Provide Plastic Laminate Faced Cabinets Manufactured with:
   1. Particleboard Core:
      a. M-3 CARB2 compliant for emission levels of urea formaldehyde, and shall meet or exceed all requirements as set by ANSI A208.1-2016.

| | |
|---|---|
| Density | 40-45 lbs/cu.ft |
| Moisture Content | 10% Max |
| Modulus of Rupture | 2176 psi |
| Modulus of Elasticity | 362,600 psi |
| Internal Bond | 73 psi |
| Hardness | 500 pounds Min |
| Linear Expansion | <0.40% |
| Thickness Tolerance | +/- 0.008" |
| Face Screw Holding | 225 pounds (min) |
| Core Screw Holding | 202 pounds (min) |
| Formaldehyde Emission | <0.09 ppm (Carb 2) |

   2. MR (Moisture Resistant)/FSC Core shall be:
      a. Interior-Grade moisture resistant particleboard.
      b. Meet or exceed M-3 Grade, according ANSI-A208.1-20016.

B. Cabinet Joinery:
   1. Concealed Interlocking Mechanical Fasteners or Dowel construction: For cabinet body components. Manufacturer's discretion on best suited joinery method for project.
   2. Construction: Meets requirements in AWS Manual, Edition 2, including errata and appendix section.

C. Surface Material:
   1. Acceptable laminate color, pattern, and finish as either scheduled or otherwise indicated on drawings or as selected by Architect from manufacturer’s standards types and nominal thickness including:
      a. General purpose vertical grade VGS HPDL. Choose from Formica, Wilsonart, Pionite and Nevamar non-premium, non-specialty laminates in Formica “58” finish, Wilsonart “60” or “38” matte finish and Nevamar “T” textured finish.
      b. General purpose horizontal grade HGS HPDL. Choose full range of Formica, Wilsonart, and Nevamar laminates.
      c. Cabinet decorative liner grade CLS
      d. Non-decorative backer grade BKH
      e. Low pressure decorative laminate
      f. Chemical resistant decorative laminate

D. Edge banding:
   1. PVC
      a. Shall be applied utilizing hot melt adhesive and radiused by automatic trimmers. Edging shall be available in a variety of color options.

E. Adhesives:
   1. PVA
      a. Adhesive shall be mechanically applied.
      b. ULEF, no VOC

2. EVA
    a. Adhesive shall be mechanically applied.

**2.03 FABRICATION**

A. General Cabinet Body Construction:
    1. Cabinet Box Style shall be Reveal Overlay Fronts.
    2. Cabinet Box Core shall be standard M3 particleboard.
    3. Sink Cabinet Box Core shall be standard M3 particleboard.
    4. Bottoms and ends of cabinets, and tops of tall cabinets and tops and bottoms of wall cabinets (all structural components) shall be 3/4-inch thick.
    5. All panels shall be manufactured with balanced construction. Cabinet components may use CLS cabinet liner or BKH backer to balance VGS HPDL laminate at semi-exposed and non-exposed surfaces.
    6. Fixed interior components such as fixed shelves, dividers, and cubicle compartments shall be full 3/4" thick and attached with concealed interlocking mechanical fasteners.
    7. Fixed and adjustable shelves at open cabinets shall be 1” thick.
    8. Cabinet body exterior surfaces shall be considered Exposed Surfaces.
    9. Open cabinet interior surfaces and interiors behind clear glass doors shall be considered Exposed Surfaces.
    10. Closed cabinet body interior surfaces shall be considered Semi-Exposed Surfaces.
    11. Visible cabinet bottoms (e.g. wall cabinet bottoms) shall be considered Exposed if 42” or more A.F.F., Semi-Concealed between 24” and 42” and Concealed below 24”: A.F.F.
    12. Visible cabinet tops (e.g. wall cabinet tops, hutch cabinet tops, tall cabinet tops) shall be considered Exposed if 80” or less A.F.F. or if visible from above and Concealed if more than 80” A.F.F. and not visible from above.
    13. Cabinet edges:
        a. Cabinet body front edge shall be: 3mm Thick PVC.
        b. All other edges shall be: unfinished.
    14. Mounting stretchers are 3/4" thick structural components fastened to end panels and back by mechanical fasteners, and are concealed by the cabinet back.
    15. When the rear of a cabinet is exposed, a separate finished 3/4" thick decorative laminate back panel may be required.
    16. Backs of cabinets are 1/2" thick surfaced both sides for balanced construction and fully captured on both sides and bottom.
    17. A 5mm diameter row hole pattern 32mm (1-1/4") on center shall be bored in cabinet ends for adjustable shelves. This row hole pattern shall also serve for hardware mounting and replacement and/or relocation of cabinet components.

B. Base Cabinet Construction:
    1. Sink cabinets shall have a split removable back panel and be constructed in such a manner as to provide maximum clearance for sink installation. A formed metal front brace, and steel corner gussets, may be utilized to achieve maximum clearance and provides support and secure fastening for the top in all four corners. Front face shall be powder coated black.
    2. A minimum 4” wide stretcher shall be provided below drawers and shall be mechanically fastened to the end panels.

C. Tall Cabinet Construction:
    1. All tall cabinets shall be provided with an intermediate fixed shelf to maintain internal dimensional stability under heavy loading conditions as well as an intermediate 3/4" thick stretcher located behind the back panel, secured between the cabinet ends with mechanical fasteners. The stretcher shall be secured to the shelf through the back with #8 x 2" plated flat head screws.

D. Wall Cabinet Construction:
   1. All wall cabinet bottoms shall be 3/4-inch thick core (type specified above), mechanically fastened between end panels and secured to the bottom back stretcher. A lower 3/4" thick stretcher shall be located behind the back panel and attached between the end panels with mechanical fasteners. The stretcher is also secured through the back and into the cabinet bottom. Cabinets wider than 36” shall include a vertical partition mid-cabinet for added bottom and shelf support.
   2. All wall cabinet tops shall be ¾ -inch thick.

E. Tall and Wall Cabinet Top Edges shall be unfinished if not visible from above or nominal 1mm PVC edgeband matching the cabinet box edge if visible from above.

F. Tall, Wall and Hutch Tops shall be considered Exposed or Semi-Exposed based on visibility as previously defined. Semi-Exposed surfaces shall utilize BKL, LPDL or CLS. LPDL and CLS shall match the color selected for Semi-Exposed surfaces.

G. Reveal above the top door and drawer front shall be a maximum of 15mm for all cabinets.

H. Toe Base of Cabinet:
   1. Individual bases shall be constructed of: CDX plywood factory applied to base and tall cabinets and shall support and carry the load of the end panels, and the cabinet bottom, directly to the floor. The base shall be let in from the sides and back of the cabinet to allow cabinets to be installed tightly together and tight against a wall, also to conceal the top edge of applied vinyl base molding (not supplied by casework manufacturer). There shall be a front to back center support for all bases over 30" wide.
   2. Toe Base Height: 3-3/4” unless noted otherwise on the drawings to permit shimming to accommodate variances in the floor.
   3. Toe bases shall be securely attached to the base cabinet at the manufacturer.

I. Drawer Fronts and Solid Doors:
   1. All drawer fronts and solid door components shall be: 11/16” thick M-3 industrial particleboard surfaced both sides for balanced construction.
   2. Exterior of door and drawer fronts shall be surfaced with VGS HPDL, balanced with either VGS HPDL or CLS cabinet liner at Semi-Exposed interior surfaces and with VGS HPDL on Exposed interior surfaces. The interior surface of a glazed door is an Exposed Surface.
   3. Door and drawer front edge shall be: machine applied 3mm thick PVC radiused to eliminate sharp edges and corners.

J. Drawer Boxes:
   1. Drawer box core shall be M-3 industrial particleboard.
   2. Drawer box surface at finished interiors shall match semi-exposed interior finish.
   3. Drawer box sides, backs and sub-front shall be ½” thick, carried by a non-racking, non-deflecting ½” thick plant-on bottom mechanically fastened to the sides, sub-front and back 4” on center. The top edge shall be nominal 1mm (.020") PVC matching the drawer color. Drawer box corners shall be joined with fluted hardwood dowels and glue spaced at a minimum of 32mm on center.
   4. Bottom mount slides are secured with 1-1/4" long screws driven through the plant-on bottom up into the sides. Side-mount slides are secured with ½” long screws driven into the drawer box sides. Drawer box fronts shall be removable and attached to drawer box sub-front with screws from inside of drawer. Screws shall be located a maximum of 1-1/2” from the inside corner of the sub-front and shall be spaced a maximum of 12” on center. Horizontal parting rails between drawers shall be 3/4" thick core, with balanced surfaces, secured to and further reinforcing cabinet ends. File drawer box shall have full-height sides supporting a heavy-duty support rail for hanging file folders.

K. Doors:
   1. Solid Doors shall be surfaced both sides for balanced construction.

2. Glazed Doors, Framed shall be:
    a. Panels in hinged or sliding 3/4" thick, framed doors shall be clear laminated glass. Panels must be a minimum of ¼" thick. Glazing panel shall be set into the doorframe without the use of a separate molding. Glazing shall be held in place with removable stops.
3. Glazed Doors, Frameless shall be:
    a. Sliding, minimum of 1/4" thick clear laminated glass. All edges to be radius ground and polished.
4. Sliding Doors shall be:
    a. Extruded aluminum upper track with anodized finish. All tall cabinets shall receive two hanging brackets per door with two rollers per bracket. All other cabinets shall receive two hanging brackets per door with one roller per bracket. The bottom of door
5. Pocket Doors shall be:
    a. Zinc plated, self-closing, three-way adjustable geometric door hinge with precision steel ball bearing slides.
6. Grille Doors shall be:
    a. Single wide grille doors where shown or noted shall have individual, zinc plated stay-close wire door latches. The wire door latch is a robust, door/side-mounted design made of 13-gauge cold rolled steel. A self-latching lever smoothly travels over the hasp and falls into a positive latched, stay-close position. For security, the door can be locked with a padlock. This option is not available on cabinets with double door configurations.

L. Shelves:
1. Adjustable:
    a. Adjustable Shelf Core shall be: M-3 industrial particle board.
    b. Adjustable shelves in closed cabinets shall be: 3/4” shelves, 1" for shelves over 30" wide.
    c. All adjustable shelves in open cabinets shall be: 1" thick, except for special use cabinets such as mail, cubical, instrument or locker type units.
    d. Adjustable shelf edge on open cabinets shall be: nominal 1mm PVC at front edge ; nominal 1mm PVC at back edge
    e. Adjustable shelf edge on closed cabinets shall be: nominal 1mm PVC at front edge ; nominal 1mm PVC at back edge
    f. Adjustable shelf shall be set back a maximum of 15mm from the front of the cabinet.
2. Fixed:
    a. Fixed shelves shall be standard M3 particleboard. Top and bottom surfaces shall be the same.
    b. Fixed shelves shall be 3/4” thick at closed cabinets, 1” thick at open cabinets.
    c. Fixed shelf surfaces on closed cabinets shall be LPDL.
    d. Fixed shelf surfaces on open cabinets shall be HPDL.
3. Wall shelving on standards and brackets shall be:
    a. Fixed shelves shall be standard M3 particleboard. Top and bottom surfaces shall be the same.
    b. Edged all four edges with 3mm PVC
    c. Surfaced with HPDL
4. Wire Shelves shall be white, plastic coated.
5. Hardboard Shelves shall be ¼" thick tempered hardboard. All hardboard shall have a “S2S” surface finish.

M. Specialty Products:
1. Music Cabinets:
    a. Shelves:

1) Core shall be M-3 industrial particleboard Top and bottom surfaces shall be finished the same.
2) Heavy-Duty Shelves shall be core (specified above) with tempered hardboard top and bottom sandwich type construction. Front edge of shelves and cabinet end panels shall be: high impact radiused 3mm PVC.

b. Doors:
1) Grille doors where shown or noted shall have individual stay-close wire door latches. This wire door latch is a robust, door/side-mounted design made of 13-gauge cold rolled steel in a zinc finish. A self-latching lever smoothly travels over the hasp and falls into a positive latched, stay-close position. For security, the door can be locked with a padlock. This option is not available on cabinets with double door configurations. Grille doors shall be powder coated with a platinum finish and shall be attached to cabinet end panels by means of thru bolting.

c. Instrument Cabinet Interior Surface shall be HPDL.

2. Mobiles:
a. Mobile top shall have 3mm edging and shall have an overhang at front, sides and rear to act as a bumper. Mobile top shall be available in a variety of colors. Mobile unit shall be constructed of a 3/4" thick core, as specified, and platform with 3mm edging. Sides, back and casters will be securely fastened using mechanical fasteners.
b. Mobile units shall be available with either 4" or 6" nominal height casters.
c. Mobile back shall be 1" thick specified core.
d. Mobile unit shall have a maximum load rating of 500 pounds.
e. Mobiles will have a 3/4" thick finished top with material as specified below.

3. Locker construction shall match general casework section with the exception that all fixed shelves are 3/4" thick.
a. Locker top finish shall include a Finished Edge and Surface.

4. Countertops:
1) For dry countertops, HPDL bonded to M-2 industrial particleboard core with PVA rigid adhesives. Core shall be balanced with backing Grade BKL.
2) For wet countertops, HPDL bonded to M-2 moisture resistant particleboard core with PVA rigid adhesives. Core shall be balanced with backing Grade BKL.
3) All joints shall be secured with biscuits for alignment and tight joint fasteners.
4) Provide 4" high back splashes with thickness matching countertop thickness where shown and at all ends abutting walls and adjacent cabinets.
5) Exposed edges shall be 3mm PVC.

**2.04 FINISHES**

A. Plastic Laminate Casework Colors:
1. High Pressure Laminate is available in non-premium, non-specialty and manufacturers' standard suede finishes from our select laminate manufacturers, including:
a. VGS HPDL selected from Formica, Wilsonart, Pionite and Nevamar non-premium, non-specialty laminates in Formica "58" finish, Wilsonart "60" or "38" matte finish and Nevamar "T" textured finish
b. Color: Specialty and other manufacturer finishes are available with additional cost and longer lead times.

2. LPDL, where specified, that meets performance requirements of ANSI/NEMA 3 LD – 2005 for GP-28.
a. Natural Almond (Wilsonart D30)] or Fashion Grey (Wilsonart D381) or Frosty White (Wilsonart 1573) or equivalent.

3. Cabinet Liner, where specified, high-pressure cabinet liner conforming to ANSI/NEMA 3 LD – 2005, Grade CLS. Surface texture shall be similar to exterior finish.
    a. Almond, Grey or White closely matched to LPDL colors.

B. Plastic Laminate Countertop Colors:
1. Full range of Formica, Wilsonart, Pionite and Nevamar laminates.
2. Color: Specialty and other manufacturer finishes are available with additional cost and longer lead times.

C. Accessories:
1. Hinges:
    a. 5-Knuckle Reveal Overlay Hinge, offered in three epoxy powder coated finishes: Black, Almond, or Platinum,
2. Pulls:
    a. 8mm x 96mm Anodized aluminum wire pull.
    b. Epoxy Coated Wire Pulls available in: Almond, Platinum or Black.

D. Glazed Door Trim shall be Black, White, Almond or Grey.

E. Metal countertop supports and miscellaneous metals shall be available in: Light Grey, Light Neutral, Black or White.

F. Grommet shall be available in: Black, Almond, Grey or White

G. Trash chutes shall be available in: Black.

H. Vent grills/louvers shall be available in: Black, Almond or Grey.

**2.05 ACCESSORIES**

A. Hardware:
1. Hinges:
    a. Reveal Overlay 5-Knuckle Hinges shall be: .095" thick steel five-knuckle hospital-tip, institutional Grade (Grade 1 per ANSI/BHMA A156.9) quality with .187" diameter tight pin. Each hinge shall be secured with a minimum of nine No. 8 screws. Hinge shall permit door to swing 270 degrees without binding. Doors less than 48" in height shall have two hinges. Doors over 48" in height shall have three hinges.
2. Pulls:
    a. One pull shall be: located at the centerline of the drawer, regardless of width, to ensure ease of operation and maximize drawer slide life.
        1) Anodized aluminum wire pull, 8mm diameter with 96mm O.C. mounting holes
        2) Epoxy coated wire pull, 8mm diameter with 96mm O.C. mounting holes.
3. Drawer Slides:
    a. Pencil drawers: Grade 1, bottom mount, ¾ extension, 100lb load rated, epoxy coated, roller bearing.
    b. General purpose drawers: Grade 1, bottom mount, ¾ extension, 100lb load rated, epoxy coated, roller bearing.
    c. Letter and legal file drawers less than 20” wide: Grade 1, bottom mount, full extension, 100lb load rated, epoxy coated, roller bearing.
    d. Lateral file drawers less than 30" wide and paper storage drawers: Grade 1, side mount full extension, 150lb load rated, zinc finish, ball bearing.
    e. Lateral file drawers 30" or wider: Grade 1, side mount full extension, 150lb load rated, zinc finish, ball bearing.
4. Wall Shelving Hardware:
    a. Regular duty wall single track and heavy duty double track shelving hardware, including standards and brackets, are available in an anochrome finish.
    b. Bracket Mounted Shelf Core shall be M-3 industrial particleboard
    c. Bracket Mounted Shelf Edge shall be: 3mm PVC.

d. Bracket Mounted Shelf Surface shall be HPDL.

5. Shelf Clips:
   a. Shelf clips shall be injected molded clear plastic, with a double pin engagement 32mm on center and shall have 3/4" and 1" anti-tip locking tabs. Shelf clips for all 1/4" hardboard shelves shall be: single pin plastic with anti-tip locking tabs.
6. Coat Hooks shall be Zinc plated, single prong and double prong as detailed on the Architectural drawings.
7. Closet Rods shall be Zinc plated rod, 1" diameter with captive sockets.
8. Mirrors:
   a. Teacher wardrobe mirrors to be 8" x 10".
9. Label Holders shall be provided as detailed on the Architectural drawings.
10. Locks
    a. Lock Locations:
       1) Locks at all doors.
       2) Locks at all drawers.
    b. Lock Type:
       1) Manufacturer's standard 5 disc tumbler cam lock
    c. Keying:
       1) Locks keyed alike within a room, keyed differently between rooms.
11. Casters:
    a. Shall be available in both 4" (3" diameter wheel) and 6" (5" diameter wheel) nominal heights. 4" casters must have a minimum load rating of 165 lbs per caster and the 6" casters must have a minimum load rating of 200 lbs per caster. Shall be ball bearing with 360° swivel. Shall have non-marring wheels available in both locking and non-locking.
12. Catches:
    a. Chain Pulls shall be zinc plated, spring loaded door catch used to hold door securely shut.
    b. Chain Stops shall be zinc plated, looped chain used to limit door swing as specified, mounting plate at each end of chain shall use (4) #7 x 5/8" screws to secure to cabinet door and end panel. They shall be on cabinets at adjoining walls and where casework and countertops can interfere with the door swing of the tall cabinet.
    c. Elbow Catch shall be chrome plated, spring loaded, used to hold non-locking door securely shut.
    d. Roller Catch shall have a heavy-duty, spring-loaded roller, with molded plastic bumper mounted at door top to keep door securely shut.
    e. One (1) roller catch at base and wall cabinets, two (2) roller catches at tall cabinets.
13. Tote Tray shall be white, high impact resistant polystyrene, with label holder permanently attached to face of tray. Supported by individual polycarbonate channels mounted to cabinet ends and partitions with two integral 5mm diameter pins and secured with one-euro style screw. Height adjustable on 32mm (1-1/4") centers.
14. Metal Countertop Supports:
    a. Powder coated, formed metal supports. Must provide attachment points between countertop and wall.

B. Goggle Sanitizer Unit: Metal cabinet with weld seams and continuous tight fitting piano hinge and double latching doors with indicator light.
   1. Capacity: 35 Goggles, minimum.
   2. UV-Lamp Timer; unit will not operate unless cabinet doors are closed.
   3. Manufacturer:
      a. Ward's Science +.
      b. Eisco GGSN10.

## 2.06 SOURCE QUALITY TESTING

A. Cabinet Joinery:

1. Base Cabinet:
   a. Base cabinet testing shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 4.0 Base Cabinets. All testing shall be performed by SEFA certified independent testing facilities. The following tests shall be performed: The SEFA 8 test procedures are accessible on-line at www.sefalabs.com. The ANSI/NEMA 3 LD – 2005 test procedures are available on-line at www.global.ihs.com:

| Test | Paragraph |
|---|---|
| Cabinet Load | 4.2 |
| Cabinet Concentrated Load | 4.3 |
| Cabinet Torsion | 4.4 |
| Cabinet Submersion | 4.5 |

2. Doors:
   a. Door testing shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 5.0 Doors. The following tests shall be performed:

| Test | Paragraph |
|---|---|
| Door Hinge Test | 5.1 |
| Door Cycle Test | 5.2 |

3. Drawers:
   a. Drawer testing shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 6.0 Drawers. The following tests shall be performed:

| Test | Paragraph |
|---|---|
| Drawer Static Test | 6.1 |
| Drawer Impact Test | 6.2 |
| Drawer Internal Rolling Test | 6.3 |
| Drawer Cycle Test | 6.4 |

4. Cabinet Surface Finish:
   a. Cabinet surface finish tests shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 8.0, Cabinet Surface Finish Tests. The following testing shall be performed:

| Test | Paragraph |
|---|---|
| Chemical Spot Test | 8.1 |
| Boiling Water Resistance Test (ANSI/NEMA LD 3 -2005 Paragraph 3.5) | 8.2 |
| Ball Impact Resistance Test (ANSI/NEMA LD 3 -2005 Paragraph 3.8) | 8.3 |
| Dart Impact resistance Test (ANSI/NEMA LD 3 – 2005 Paragraph 3.9) | 8.4 |

5. Edge Delaminating Test:
   a. Edge delaminating tests shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 8.5, Edge Delaminating Test.
6. Wall, Counter Mounted, and Tall Cabinets Load Test:
   a. The wall mounted cabinet load test shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 9.0.

## PART 3 – EXECUTION

### 3.01 INSTALLERS

A. Installation shall be: by casework manufacturer's authorized representative.

### 3.02 INSTALLATION

A. Casework shall not be: installed until concrete, masonry, and drywall/plaster work is dry.
   1. If ambient conditions are not met at the time of requested delivery, the general contractor or owner must provide Case Systems a letter that releases manufacturer from any liability and responsibility from any warranty or damage resulting from not complying with required ambient conditions.

B. Casework shall be: installed plumb and true and is to be securely anchored in place.

C. The casework contractor shall verify all critical building dimensions prior to fabrication of casework.

D. Provide all labor for unloading, distribution, and installation of casework and related items as specified.

E. All casework shall be: securely anchored to horizontal wall blocking, not to plaster lathe or wall board.

F. The casework manufacturer shall re-configure the casework arrangements to dimensions requiring 2-1/2" or less of filler at each end of wall-to-wall elevations, and to ensure a complete and satisfactory installation.

G. The casework installer shall remove all debris, sawdust, scraps, and leave casework spaces clean.

H. All casework must be installed by casework installer plumb and level, adjust all doors, drawers and hardware to comply with manufacturers specifications and operate properly.

**END OF SECTION**

**SECTION 12 3553.19**
**WOOD LABORATORY CASEWORK**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Cabinet hardware.

B. Tables: Instructor's demonstration table.

C. Countertops.

D. Laboratory sinks.

E. Service fittings and outlets.

### 1.02 RELATED REQUIREMENTS

A. Section 01 6000 - Product Requirements: Requirements for sustainably harvested wood.

B. Section 06 1000 - Rough Carpentry: Blocking and nailers for anchoring casework.

C. Section 22 4000 - Plumbing Fixtures.

### 1.03 DEFINITIONS

A. Exposed: Portions of casework visible when drawers and cabinet doors are closed, including end panels, bottoms of cases more than 42 inches above finished floor, tops of cases less than 72 inches above finished floor and all members visible in open cases or behind glass doors.

B. Semi-Exposed: Portions of casework and surfaces behind solid doors, tops of cases more than 72 inches above finished floor and bottoms of cabinets more than 30 inches but less than 42 inches above finished floor.

C. Concealed: Sleepers, web frames, dust panels and other surfaces not generally visible after installation and cabinets less than 30 inches above finished floor.

D. "Eased" is a process of providing a slight radius on door and drawer fronts of a cabinet.

### 1.04 SYSTEM DESCRIPTION

A. Full Flush overlay with 1/8" reveal between intra-cabinet doors and drawers and 1/16" reveal at cabinet edge for offset of the hinge around the door and 1/8" reveal on adjacent cabinets. all door and drawer fronts will be adjusted to maintain these tolerances.

B. Door and drawer fronts are to be slightly eased at all edges.

C. No exposed fasteners are allowed without prior approval of the Architect.

D. Cabinet elevations will be in symetrical sizes as required to fill the area.

E. Maximum filler size is 4" and must be balanced on each end of wall to wall elevations.

F. All banded edges (cabinet faces, frames, end panels, tops, bottoms and shelving) to be stick stock 5mm hardwood edge banding. 3mm rolled edge banding is not acceptable.

### 1.05 REFERENCE STANDARD

A. ADA Standards - 2010 ADA Standards for Accessible Design 2010.

B. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass 2018.

C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

D. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials 2022.

E. AWI (QCP) - Quality Certification Program Current Edition.

F. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition 2014, with Errata (2016).

G. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards 2021, with Errata.

H. BHMA A156.9 - Cabinet Hardware 2020.

I. SEFA 1 - Laboratory Fume Hoods 2010.

J. SEFA 3 - Laboratory Work Surfaces 2010.

K. SEFA 7 - Laboratory Fixtures 2010.

L. SEFA 8W - Laboratory Grade Wood Casework 2016.

**1.06 ADMINISTRATIVE REQUIREMENTS**

A. Coordination: Coordinate installation of casework with related items.
   1. Service Fixtures: Coordinate location and characteristics of service connections.
   2. Equipment and Instruments: Coordinate installation of casework with equipment and scientific instruments.

B. Preinstallation Meeting: Conduct a preinstallation meeting one week prior to the start of the work of this section; require attendance by all affected installers.

C. Keying Conference: Conduct conference prior to ordering keys. Incorporate conference decisions into keying submittal.

**1.07 SUBMITTALS**

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Shop Drawings: Indicate casework types, sizes, and locations, using large scale plans, elevations, and cross sections. Include rough-in and anchors and reinforcements placement dimensions and tolerances, clearances required, and utility locations, if any. Include coordinated information for laboratory equipment specified in another section and/or furnished by Owner.

C. Certificate: Submit labels and certificates required by quality assurance and quality control programs.

D. Test Reports: From independent laboratory indicating compliance with referenced chemical-resistance standards for cabinet finish and liner materials.

E. Maintenance Data: Manufacturer's recommendations for care and cleaning.

F. Finish touch-up kit for each type and color of materials provided.

**1.08 QUALITY ASSURANCE**

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum 10 years of documented experience.

B. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than 5 years of documented experience and approved by manufacturer.

C. Quality Certification:
   1. Comply with AWI (QCP) woodwork association quality certification service/program in accordance with requirements for work specified in this section: www.awiqcp.org/#sle.
   2. Provide labels or certificates indicating that installed work complies with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade or grades specified.
   3. Provide designated labels on shop drawings as required by certification program.
   4. Provide designated labels on installed products as required by certification program.
   5. Submit certifications upon completion of installation that verifies this work is in compliance with specified requirements.

## 1.09 DELIVERY, STORAGE, AND HANDLING

A. Protect items provided by this section, including finished surfaces and hardware items during handling and installation. For metal surfaces, use polyethylene film or other protective material standard with the manufacturer.

B. Acceptance at Site:
   1. Do not deliver or install casework until the conditions specified under Part 3, Examination Article of this section have been met. Products delivered to sites that are not enclosed and/or improperly conditioned will not be accepted if warping or damage due to unsatisfactory conditions occurs.

C. Storage:
   1. Store casework in the area of installation. If necessary, prior to installation, temporarily store in another area, meeting the environmental requirements specified under Part 3, "Site Verification of Conditions" paragraph of this section.

## 1.10 MOCK-UPS

A. Provide full size base cabinet complete with drawers, door, adjustable shelf and countertop.

B. See Section 01 4000 - Quality Requirements for additional requirements.

C. Locate where directed.

D. Mock-up may remain as part of the work.

## 1.11 WARRANTY

A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.

B. Correct defective work within a five year period after Date of Substantial Completion, at no additional cost to Owner. Defects include, but are not limited to:
   1. Ruptured, cracked, or stained finish coating.
   2. Discoloration, or lack of finish integrity.
   3. Delamination of components or edge-banding.
   4. Cracking or peeling of finish.
   5. Slippage, shift, or failure of attachment to wall, floor or ceiling.
   6. Warping or unloaded deflection of components.
   7. Failure of hardware.

# PART 2 PRODUCTS

## 2.01 MANUFACTURERS

A. Wood Laboratory Casework:
   1. Institutional Casework Inc: www.iciscientific.com/#sle.
   2. Substitutions: See Section 01 6000 - Product Requirements.

B. Obtain casework, integral sinks and countertops from single source and manufacturer, unless otherwise indicated.

## 2.02 WOOD LABORATORY CASEWORK

A. Wood Laboratory Casework: Solid wood and wood panel construction; each unit self-contained and not dependent on adjacent units or building structure for rigidity; in sizes necessary to avoid field cutting except for scribes and filler panels. Include adjustable levelers for base cabinets.
   1. Style: Flush overlay. Ease doors and drawer fronts slightly at edges.
   2. Cabinet Nominal Dimensions: Unless otherwise indicated, provide cabinets of widths and heights indicated on drawings, and with following front-to-back dimensions:
      a. Base Cabinets: 22 inches.

3. Construction: Joints doweled, glued and screwed, except drawers may be lock-shoulder jointed; with interior of units smooth and flush; cabinet bottom flush with top of face frame; without gaps or inaccessible spaces or areas where dirt or moisture could accumulate.
4. Structural Performance: In addition to the requirements of SEFA 3, SEFA 7, and SEFA 8W, components safely support the following minimum loads:
    a. Base Units: 500 pounds per linear foot across the cabinet ends.
    b. Suspended Units: 300 pounds static load.
    c. Drawers: 125 pounds, minimum.
5. Fittings and Fixture Locations: Cut and drill counter tops, backs, and other components for service outlets and fixtures.
6. Access Panels: Where indicated, for maintenance of utility service and mechanical and electrical components.
7. Removable back panels on base cabinets. Provide partial height back panels at sink cabinets.
8. Fixed panels at backs of open spaces between base cabinets and at ends of utility spaces not otherwise enclosed.
9. Scribes and Fillers: Panels of matching construction and finish, for locations where cabinets do not fit tight to adjacent construction.
10. Factory-finish all exposed and semi-exposed surfaces with the same finish.
    a. Finish Performance: Provide finish on all surfaces having chemical resistance of Level 0 (no change) or Level 1 (slight change of gloss or slight discoloration) according to SEFA 8W and no visible effect when surface is exposed to:
        1) Hot water at temperature between 190 degrees F and 205 degrees F trickled down the test surface at 45 degree angle for 5 minutes.
        2) Constant moisture in the form of 2 by 3 by 1 inch thick cellulose sponge kept continually saturated with water and in contact with test surface for 100 hours.
    b. Preparation: Wood sanded smooth, free from dust and mill marks.
    c. Coating: Clear, superior-quality, chemical-resistant acyclic urethane; applied in accordance with manufacturer instructions, force-dried, sanded and wiped clean.
    d. Coats: Multiple coats as required to achieve minimum 1.5 mil dry film thickness.
    e. Appearance: Clear satin gloss; not cloudy or muddy.

**2.03 CABINET HARDWARE**

A. Manufacturer's standard types, styles, and finishes.

B. Comply with BHMA A156.9 requirements.

C. Finish of exposed stainless steel components: No.4 finish.

D. Locks: Provide locks on casework drawers and doors where indicated. Lock with 5 pin cylinder and 2 keys per lock.
    1. Hinged Doors: Cam type lock, bright chromium plated over nickel on base material.
    2. Tall Hinged Doors: Three-point latching system.
    3. Keying: Key locks alike within a space; key each room separately.
    4. Master Key System: All locks operable by master key.

E. Shelves in Cabinets:
    1. Shelf Standards and Rests: Vertical standards with rubber button fitted rests, satin chromium plated over nickel on base material.

F. Swinging Doors:
    1. Hinges: Offset pin, number as required by referenced standards for width, height, and weight of door.
        a. Butt Hinges for use in Chemistry Classrooms # for Inset Doors: five-knuckle, projecting barrel, minimum 2-1/2 inches long. Stainless steel with No. 4 finish.

b. European-Style Hinges: For overlay doors, concealed. Steel, nickel-plated, 110 degree opening angle.
2. Catches: Magnetic.
3. Pulls: Chrome wire pulls, 4 inches wide.
4. Drawers:
   a. Pulls: Chrome wire pulls, 4 inches wide.
   b. Slides: Steel, full extension arms, ball bearings; self-closing; capacity as recommended by manufacturer for drawer height and width.

**2.04 COUNTERTOPS**

A. Countertops:
1. Epoxy Resin Countertops: Filled epoxy resin molded into homogenous, non-porous sheets; no surface coating and color and pattern consistent throughout thickness; with integral or adhesively seamed components.
   a. Flat Surface Thickness: 1 inch, nominal.
   b. Surface Finish: Smooth, non-glare.
   c. Color: Black.
   d. Back and End Splashes: Same material, same thickness; separate for field attachment.
   e. Fabricate in accordance with manufacturer's standard requirements.
2. ***Note: If product cannot be supplied in time to meet the project schedule to open school and have the rooms ready for student use, contractor to provide temporary laminate plywood countertop at no additional cost to the Owner.***

**2.05 SINKS**

A. Laboratory sinks.
1. General: Manufacturer's adjustable support system for undermount sink installation.
2. Sink Integral : Single-bowl.
   a. Material: Epoxy
   b. Mounting: Undermount.
   c. Outlet: 1-1/2 inch NPS outlet with tailpiece.
      1) Placement: Center.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Site Verification of Environmental Conditions:
1. Do not deliver casework until the following conditions have been met:
   a. Building has been enclosed (windows and doors sealed and weather-tight).
   b. An operational HVAC system that maintains temperature and humidity at occupancy levels has been put in place.
   c. Ceiling, overhead ductwork, piping, and lighting have been installed.
   d. Installation areas do not require further “wet work” construction.

B. Verify adequacy of support framing and anchors.

C. Verify that service connections are correctly located and of proper characteristics.

**3.02 INSTALLATION**

A. Use anchoring devices to suit conditions and substrate materials encountered. Use concealed fasteners to the greatest degree possible. Use exposed fasteners only where allowed by approved shop drawings, or where concealed fasteners are impracticable.

B. Set casework items plumb and square, securely anchored to building structure.

C. Fasten together cabinets in continuous runs, with joints flush, uniform and tight. Misalignment of adjacent units not to exceed 1/16 inch. In addition, do not exceed the following tolerances:

1. Variation of Tops of Base Cabinets from Level: 1/16 inch in 10 feet.
2. Variation of Faces of Cabinets from a True Plane: 1/8 inch in 10 feet.
3. Variation of Adjacent Surfaces from a True Plane (Lippage): 1/32 inch.
4. Variation in Alignment of Adjacent Door and Drawer Edges: 1/16 inch.

D. Install hardware uniformly and precisely. Set hinges snug and flat in mortises.

E. Countertops: Install countertops in one true plane, with ends abutting at hairline joints, and no raised edges.

F. Replace units that are damaged, including those that have damaged finishes.

**3.03 ADJUSTING**

A. Adjust operating parts, including doors, drawers, hardware, and fixtures to function smoothly.

**3.04 CLEANING**

A. Clean casework and other installed surfaces thoroughly.

**3.05 PROTECTION**

A. Do not permit finished casework to be exposed to continued construction activity.

B. Protect casework and countertops from ongoing construction activities. Prevent installers from standing on or storing tools and materials on casework or countertops.

C. Repair damage that occurs prior to Date of Substantial Completion, including finishes, using methods prescribed by manufacturer; replace units that cannot be repaired to like-new condition.

**END OF SECTION**

**SECTION 12 3600**
**COUNTERTOPS**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Countertops for Manufactured Wood (Plastic Laminate Faced) Casework and retrofit for existing lab tables in Art Classroom (Epoxy Resin); Faculty 169 and FACS/Culinary Classroom (Solid Surface); FACS/Fashion (Plastic Laminate).

B. Wall-hung counters and vanity tops.

C. Sinks molded into countertops.

D. Epoxy resin sinks.

E. Partial wall top caps- solid surface.

### 1.02 RELATED REQUIREMENTS

A. Section 123200 - Manufactured Wood Casework.

B. Section 22 4000 - Plumbing Fixtures: Sinks.

### 1.03 PRICE AND PAYMENT PROCEDURES

A. See Section 01 2100 - Allowances, for cash allowances affecting this section.

### 1.04 REFERENCE STANDARDS

A. ASTM D635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position 2022.

B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023b.

C. AWI (QCP) - Quality Certification Program Current Edition.

D. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition 2014, with Errata (2016).

E. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards 2021, with Errata.

F. IAPMO Z124 - Plastic Plumbing Fixtures 2022.

G. ISFA 2-01 - Classification and Standards for Solid Surfacing Material 2013.

H. NEMA LD 3 - High-Pressure Decorative Laminates 2005.

I. NSF 51 - Food Equipment Materials 2023.

J. SEFA 2 - Installations 2010.

K. SEFA 3 - Laboratory Work Surfaces 2010.

### 1.05 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements for submittal procedures.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Specimen warranty.

C. Shop Drawings: Complete details of materials and installation ; combine with shop drawings of cabinets and casework specified in other sections.

D. Selection Samples: For each finish product specified, color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish product specified, minimum size 3 inches square, representing actual product, color, and patterns.

F. Test Reports: Chemical resistance testing, showing compliance with specified requirements.

G. Certificate: Submit labels and certificates required by quality assurance and quality control programs.

H. Installer's qualification statement.

I. Maintenance Data: Manufacturer's instructions and recommendations for maintenance and repair of countertop surfaces.

### 1.06 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than 5 years of documented experience.

B. Quality Certification:
   1. Comply with AWI (QCP) woodwork association quality certification service/program in accordance with requirements for work specified in this section: www.awiqcp.org/#sle.
   2. Provide labels or certificates indicating that the installed work complies with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade or grades specified.
   3. Provide designated labels on shop drawings as required by certification program.
   4. Provide designated labels on installed products as required by certification program.
   5. Submit certifications upon completion of installation that verifies this work is in compliance with specified requirements.

### 1.07 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

### 1.08 FIELD CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

## PART 2 PRODUCTS

### 2.01 COUNTERTOPS

A. Quality Standard: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.

B. Plastic Laminate Countertops qand backsplash where noted: High-pressure decorative laminate (HPDL) sheet bonded to substrate.
   1. Laminate Sheet: NEMA LD 3, Grade HGS, 0.048 inch nominal thickness.
      a. Manufacturers:
         1) Formica Corporation: www.formica.com/#sle.
         2) Lamin-Art, Inc: www.laminart.com/#sle.
         3) Panolam Industries International, Inc: www.panolam.com/#sle.
         4) Substitutions: See Section 01 6000 - Product Requirements.
      b. Surface Burning Characteristics: Flame spread index of 25, maximum; smoke developed index of 450, maximum; when tested in accordance with ASTM E84.
      c. Wear Resistance: In addition to specified grade, comply with NEMA LD 3 High Wear Grade requirements for wear resistance.
      d. Finish: Matte or suede, gloss rating of 5 to 20.
      e. Surface Color and Pattern: As selected by Architect from the manufacturer's full line.
   2. Back and End Splashes: Same material, same construction.

C. Epoxy Resin Countertops: Filled epoxy resin molded into homogenous, non-porous sheets; no surface coating and color and pattern consistent throughout thickness; with integral or adhesively seamed components. **(NOTE: due to lead times of expoxy resin tops, the GC shall supply laminate countertops for all locations noted at no added cost to the owner to allow for tops to be in place for school to open as per district's opening date. The GC shall coordinate a scheduled time with the district to allow for epoxy tops to be installed.)**
   1. Manufacturers:
      a. Durcon, Inc: www.durcon.com/#sle.
      b. Prime Industries, Inc: www.piilab.com/#sle.
      c. ICI Scientific, Inc.: www.iciscientific.com/#sle.
      d. Substitutions: See Section 01 6000 - Product Requirements.
   2. Flat Surface Thickness: 1 inch, nominal.
   3. Chemical-Resistance: Provide products that resist the following chemicals with not more than Moderate Effect when tested in accordance with NEMA LD 3:
   4. Flammability: Self-extinguishing, when tested in accordance with ASTM D635.
   5. Surface Finish: Smooth, non-glare.
   6. Color: Black.
   7. Exposed Edge Shape: 3/16 inch radius corner.
   8. Back and End Splashes: Same material, same thickness; separate for field attachment.
   9. Sinks: Same material, same color; integrally molded with counter; bottom sloped to outlet; molded outlets; drain outlet located in back corner.
      a. Sides and Ends: 1/2 inch minimum thickness.
      b. Bottoms: 5/8 inch minimum thickness.
      c. Interior Corners: 1 inch minimum radius.
      d. Clamping collars for 1-1/2 or 2 inch diameter waste pipe, for sealed but not permanent connection.
      e. Steel channel supports front to back on each side, fastened to underside of top to support twice full sink weight.
   10. Associated Reagent Shelves and Ledges: Same material.
   11. Fabricate in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 11 - Countertops, Premium Grade.
   12. Fabricate in accordance with manufacturer's standard requirements.

D. Solid Surfacing Countertops: Solid surfacing sheet or plastic resin casting over continuous substrate.
   1. Flat Sheet Thickness: 3/4 inch, minimum.
   2. Solid Surfacing Sheet and Plastic Resin Castings: Complying with ISFA 2-01 and NEMA LD 3; acrylic or polyester resin, mineral filler, and pigments; homogenous, non-porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
      a. Manufacturers:
         1) Basis of Design: Corian: www.corian.com/#sle.
         2) Substitutions: See Section 01 6000 - Product Requirements.
      b. Surface Burning Characteristics: Flame spread index of 25, maximum; smoke developed index of 450, maximum; when tested in accordance with ASTM E84.
      c. NSF approved for food contact.
      d. Finish on Exposed Surfaces: Matte, gloss rating of 5 to 20.
      e. Color and Pattern: "Silt".
   3. Other Components Thickness: 1/2 inch, minimum.
   4. Exposed Edge Treatment: Built up to minimum 1-1/4 inch thick; square edge.
   5. Back and End Splashes: Same sheet material, square top; minimum 4 inches high.

6. Fabricate in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 11 - Countertops, Premium Grade.

**2.02 MATERIALS**

A. Adhesives: Chemical resistant waterproof adhesive as recommended by manufacturer of materials being joined.

B. Cove Molding for Top of Splashes: Rubber with semi-gloss finish and T-spline to fit between splash and wall; 1/2 inch by 1/2 inch.

C. Joint Sealant: Mildew-resistant silicone sealant, white.

**2.03 ACCESSORIES**

A. Fixed Top-Mounted Countertop Support Brackets:
   1. Material: Steel.
   2. Finish: Manufacturer's standard, factory-applied, textured powder coat.
   3. Color: White.
   4. Products:
      a. Centerline Brackets; Front Mounting Countertop Support: www.countertopbracket.com/#sle.
      b. Substitutions: See Section 01 6000 - Product Requirements.

**2.04 FABRICATION**

A. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.
   1. Join lengths of tops using best method recommended by manufacturer.
   2. Fabricate to overhang fronts and ends of cabinets 1 inch except where top butts against cabinet or wall.
   3. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.

B. Provide back/end splash wherever counter edge abuts vertical surface unless otherwise indicated.
   1. Secure to countertop with concealed fasteners and with contact surfaces set in waterproof glue.
   2. Height: 4 inches, unless otherwise indicated.

C. Solid Surfacing: Fabricate tops and wall panels up to 144 inches long in one piece; join pieces with adhesive sealant in accordance with manufacturer's recommendations and instructions.

D. Wall-Mounted Counters: Provide skirts, aprons, brackets, and braces as indicated on drawings, finished to match.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Verify that wall surfaces have been finished and mechanical and electrical services and outlets are installed in proper locations.

**3.02 PREPARATION**

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

**3.03 INSTALLATION**

A. Install laboratory worksurface countertops in compliance with requirements of SEFA 2.

B. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; shim where required.

C. Attach plastic laminate countertops using screws with minimum penetration into substrate board of 5/8 inch.

D. Attach epoxy resin countertops using compatible adhesive.

E. Seal joint between back/end splashes and vertical surfaces.
   1. Where indicated use rubber cove molding.
   2. Where applied cove molding is not indicated use specified sealant.

**3.04 TOLERANCES**

A. Variation From Horizontal: 1/8 inch in 10 feet, maximum.

B. Offset From Wall, Countertops: 1/8 inch maximum; 1/16 inch minimum.

C. Field Joints: 1/8 inch wide, maximum.

**3.05 CLEANING**

**3.06 PROTECTION**

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

**END OF SECTION**

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