

# ISSUED FOR BID

SPECIFICATIONS

FOR

CONTRACT #5 – MEDIA CENTER ALTERATIONS

AT

HAMILTON ELEMENTARY SCHOOL

STATE PLAN #5400-020-20-1000

Voorhees Township Board of Education  
Administration Building  
329 Route 73  
Voorhees, NJ 08043

Attention: Ms. HelenG. Haley, CPA,  
Business Administrator / Board Secretary

Telephone #856-751-8446 (Ext. 6114)  
Fax #856-751-3666

**LAN Job #2.20321.05**

June 23, 2020

**LAN**

LAN ASSOCIATES

SINCE 1965

ENGINEERING • PLANNING • ARCHITECTURE • SURVEYING, INC.  
445 GODWIN AVE. STE. 9, MIDLAND PARK, NEW JERSEY 07432

P. 201-447-6400 ▪ F. 201-447-1233 ▪ WWW.LANASSOCIATES.COM



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**Responsible for preparation of  
Divisions 01, 02, 05, 06, 07, 09, 10, & 12**

---

Ronald W. Schwenke 3<sup>rd</sup>, RA  
Registered Architect  
NJ RA #21AI02051300

**LAN Job #2.20321.05**  
June 23, 2020

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Telephone #856-751-8446 (Ext. 6114)  
Fax #856-751-3666

**Responsible for preparation of  
Division 26**

---

Thomas Wighard, PE  
Professional Engineer  
NJ PE #24GE04901100

**LAN Job #2.20321.05**  
June 23, 2020

**LAN**  
LAN ASSOCIATES

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# VOORHEES BOARD OF EDUCATION

## REQUEST FOR BIDS

Contract #5 – Media Center Alterations at Hamilton Elementary School

### Bid Advertisement

The Voorhees Board of Education of Voorhees, New Jersey, hereby advertises for competitive bids in accordance with N.J.S.A. 18A:18A-21(a) (b) for a single overall contract in accordance with NJSA 18A:18A-18(b) (2):

**Contract:** #5 - Single Overall Contract for  
**Title of Bid:** Media Center Alterations at Hamilton Elementary School

Bidders shall be prequalified by the New Jersey Division Property Management and Construction in the trade categories listed below, or name such prequalified subcontractors:

| <u>Trade Category #</u> | <u>Title</u>   |
|-------------------------|--|
| C008 or C009            | General Construction or General Construction Additions and Alterations |

All necessary bid documents may be secured from the Architect, LAN Associates Engineering, Planning, Architecture, Surveying, Inc. (LAN). Bidding Documents will be transmitted through a web link provided to perspective bidder upon receipt of the request via email to the Architect. Email requests must reference the Media Center Alterations at Hamilton Elementary School and must include Bidders Company, Company Address, Point of Contact, Telephone and Facsimile numbers, and Bidder's email address. Contact LAN's Senior Architect: Jeff Potter via email at [jeff.potter@lanassociates.com](mailto:jeff.potter@lanassociates.com).

All questions shall be submitted in writing and will be responded to through Addenda sent to all bidders via email and/or facsimile.

Bidders are requested to submit in accordance with N.J.S.A. 18A: 18A – 18(b)(2) one Lump Sum Bid for all work and materials.

Due to the Covid-19 pandemic and for an unknown amount of time, the Voorhees Township Board of Education's offices, pursuant to NJ Executive Order, are currently closed. Provisions are being made to receive the submission of bids. All potential bidders are to either 1) send their responses through the US Postal Service certified mail or overnight mail which provides **certification of delivery to the sender** or 2) hand deliver their responses to the below address. A delivery drop box and bid delivery form will be available on site. Bidders will be required to drop their bids into the drop box, complete the pre-printed form, photograph the form, and email the completed form to LAN's Architect at the time of delivery of their bid. This email will serve as record of the bid submission and time. Bids must be sealed and mailed or hand delivered to Voorhees Board of Education Board Offices (Office of the Business Administrator/Board Secretary, Helen Haley) located at 329 Route 73, Voorhees, New Jersey **on or before** date and time indicated below. The envelope shall bear the following information:

Title: **Contract #5 – Media Center Alterations at Hamilton Elementary School**  
Name and Address of the Bidder  
Date: **July 9, 2020**  
Time: **2:00 p.m.**

Please note that the bid opening process will begin on the above advertised date at 2:00 p.m. To ensure there is "social distancing" amongst all parties in the bid opening, the bid opening will be conducted via online live streaming. The names of the vendors and their prices will be announced on the online live

streaming which may be viewed by the general public and interested parties on the advertised bid date and time.

All potential bidders are to complete the following Google Form (<https://forms.gle/eiyRVxqbxyCuLzgD9>) to attend the bid opening meeting. Once the form is complete, a Google Meet link for the Bid Opening will be sent to the potential bidder. No bids shall be received after the time designated in the advertisement as per N.J.S.A. 18A:18A-21(b). The Board of Education does not accept electronic (e-mail) submission of bids.

There will be a pre-bid meeting via Google Meet on Thursday, June 25, 2020 at 10:00 AM. The Google Meeting invitation will be sent to all registered bidders by the Architect, LAN Associates. Site walk-throughs can be scheduled with the Architect via email request and will be held as arranged on Thursday, June 25, 2020 between 1:00 PM and 3:00 PM. All prospective bidders are strongly encouraged to attend this important online Pre-Bid Google Meet and are urged to schedule a site walk-through. Due to the current pandemic, non-scheduled site walk-throughs will not be permitted. All bidders who visit the site are required to wear personal protection equipment in accordance with the State of New Jersey's Executive Order and to practice social distancing procedures. Failure to attend the Pre-Bid meeting will not excuse any bid mistake and/or omission due to bidder's ignorance of information disseminated at the meeting.

Additional time sensitive dates for the project are:

|  |                                   |
|--|-----------------------------------|
| Final day for Questions to the Architect:                      | Friday, June 26, 2020 by 5:00 PM  |
| Date of Issuance of Addendum (if necessary):                   | Monday, June 29, 2020 by 5:00 PM  |
| Receive Bids:  | Thursday, July 9, 2020 by 2:00 PM |
| Notice of Award/Notice to Proceed, on or about:                | Tuesday, July 14, 2020            |
| Site Mobilization:   | Tuesday, July 28, 2020            |
| Partial Substantial Completion (Occupancy):                    | Wednesday, September 2, 2020      |
| Substantial Completion<br>(balance of work & long lead items): | Friday, October 2, 2020           |

All bidders are required to comply with the requirements of N.J.S.A. 10:5-31 et seq., Affirmative Action Against Discrimination (N.J.A.C. 17:27-1 et seq.) An Initial Project Workforce Report will be required from the successful contractor. (Form AA-201).

Contractors bidding on this project are to comply with the requirements of the Prevailing Wage Rate Determination pursuant to N.J.S.A. 34:11-56.25.

A bidder on a public works project for a Board of Education where the cost of the work exceeds \$20,000.00 must first have been qualified by the Department of the Treasury, Division of Property Management and Construction, pursuant to N.J.S.A. 18A:18A-27 through 33, and shall submit with his bid a Prequalification Affidavit, a copy of a valid and active NOTICE OF CLASSIFICATION, a certified copy of a Total Amount of Uncompleted Contracts Form and an Affidavit that subsequent to the latest such statement submitted by him, there has been no material adverse change in his qualification information except as set forth in said Affidavit. Failure to submit these forms may result in the disqualification and rejection of the bid.

**Each bid shall be accompanied by a bid bond, cashier's check or certified check made payable to the Voorhees Board of Education, for ten percent (10%) of the amount of the total bid, however, not to exceed \$20,000.**

Corporate bidders are required by law (Chapter 33, Laws of 1977) to submit a list of names and addresses of all stockholders owning 10% or more of their stock.

The bid package will also include other documents that must be completed and returned with the bid. Failure to comply with Instructions to Bidders and to complete and submit all required forms, may be cause for disqualification and rejection of the bid.

All contractors named in this proposal, shall possess a valid Contractor's Registration Certificate pursuant to N.J.S.A. 34:11-56.48 et seq., at the time the proposal is received by the Board of Education.

***No bids may be withdrawn, except in accordance with the Public School Contracts Law, for a period of sixty (60) days after the date set for opening of bids.***

The Board of Education reserves the right to reject any or all bids, pursuant to N.J.S.A. 18A:18A-18, N.J.S.A. 18A:18A-2(s), (t), (x), (y), 18A:18A-4(a-c), and N.J.S.A. 18A:18A-22, and to waive any informalities that may be in the best interest of the board.

### **CONFIDENTIALITY OF ELECTRONIC FILE TRANSMISSIONS**

The Drawings, renderings, photographs, blueprints, specifications and bidding documents are considered proprietary and confidential property of the Voorhees School District. All electronic file transfers of this information to the bidders and/or contractors is specifically designated as "confidential" and "business proprietary," the receiving party shall keep such information strictly confidential and shall not disclose it to any other person except to (1) its employees, (2) those who need to know the content of such information in order to perform services or construction solely and exclusively for the Project, or (3) its consultants, contractors and subcontractors whose contracts include similar restrictions on the use of such confidential and proprietary information. The information transmitted in the bidding documents relates to a school construction project and the security and confidentiality of those documents is critical to the health and safety of the children. Therefore, any bidder and/or contractor and/or subcontractor discovered to have published or disseminated this information in the public domain, unless pursuant to the exceptions stated above, shall be subject to significant penalty and may not be permitted to bid on the instant project.

As a condition precedent to receipt of the Bid Documents, all bidders must agree to dispose of, destroy and/or return the information forwarded to it within three (3) days of the Bid submission date.

Helen G. Haley  
\_\_\_\_\_  
School Business Administrator/Board Secretary  
Voorhees Board of Education  
329 Route 73  
Voorhees, New Jersey 08043  
Fax: 856-751-3666  
Email: [Haley@voorhees.k12.nj.us](mailto:Haley@voorhees.k12.nj.us)

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Review all sections that may affect your work and include applicable requirements. All contracts are based on scope information within the whole document set and are not limited to “trade” drawings and specifications.

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# **Ethics in Purchasing**

## **School District Responsibility**

### **Recommendation of Purchases**

It is the desire of the Board of Education to have all Board employees and officials practice exemplary ethical behavior in the procurement of goods, materials, supplies, and services.

School district officials and employees who recommend purchases shall not extend any favoritism to any vendor. Each recommended purchase should be based upon quality of the items, service, price, delivery, and other applicable factors in full compliance with N.J.S.A. 18A:18A-1 et seq.

### **Solicitation/Receipt of Gifts – Prohibited**

School district officials and employees are prohibited from soliciting and receiving funds, gifts, materials, goods, services, favors, and any other items of value from vendors doing business with the Board of Education or anyone proposing to do business with the Board of Education.

## **Vendor Responsibility**

### **Offer of Gifts, Gratuities -- Prohibited**

Any vendor doing business or proposing to do business with the Board of Education, shall neither pay, offer to pay, either directly or indirectly, any fee, commission, or compensation, nor offer any gift, gratuity, or other thing of value of any kind to any official or employee of the Board of Education or to any member of the official's or employee's immediate family.

### **Vendor Influence -- Prohibited**

No vendor shall cause to influence or attempt to cause to influence, any official or employee of the Board of Education, in any manner which might tend to impair the objectivity or independence of judgment of said official or employee.

## **Vendor Certification**

Vendors or potential vendors will be asked to certify that no official or employee of the Board of Education or immediate family members are directly or indirectly interested in this request or have any interest in any portions of profits thereof. The vendor participating in this request must be an independent vendor and not an official or employee of the Board of Education.

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Helen G. Haley, CPA  
Business Administrator/Board Secretary

## VOORHEES TOWNSHIP BOARD OF EDUCATION

### ADVISORY INFORMATION FOR BIDDERS

#### PROMPTNESS OF BID SUBMITTAL

It is the responsibility of the bidder to ensure that their bid is presented in a sealed envelope to the Office of the School Business Administrator/Board Secretary of designee, prior to the advertised bid date and time. The advertised bid date and time for this bid is on **July 9, 2020** at **2:00 PM**. No bids shall be received after the time designated in the bid advertisement. No extensions or exceptions will be made.

Due to the Covid-19 pandemic and for an unknown amount of time, the Voorhees Township Board of Education's offices, pursuant to NJ Executive Order, are currently closed and there is no guarantee the district offices will be opened by the advertised submission date. The following procedures will be followed:

#### SUBMISSION OF BIDS

Provisions are being made to receive the submission of bids. All potential bidders are to either 1) send their responses through the US Postal Service certified mail or overnight mail which provides **certification of delivery to the sender** or 2) hand deliver their responses to the below address. A delivery drop box and bid delivery form will be available on site. Bidders will be required to drop their bids into the drop box, complete the pre-printed form, photograph the form, and email the completed form to LAN's Senior Architect at the time of delivery of their bid. This email will serve as a record of the bid submission and time. Bids must be sealed and submitted via mail or hand delivery up to **2:00 p.m.** on **Friday, July 9, 2020**, prevailing time, in a sealed envelope and plainly marked "**Contract #5 – Media Center Alterations at Hamilton Elementary School – General Contractor BID**" addressed to Helen G. Haley, Business Administrator/Board Secretary, Voorhees Township Board of Education, 329 Route 73, Voorhees, NJ, 08043.

#### OPENING OF BIDS—ONLINE LIVE STREAMING

The board of education is aware of N.J.S.A. 18A:18A-21 which states the following:

*At such time and place the purchasing agent of the board of education shall publicly receive the bids and thereupon immediately proceed to unseal them and publicly announce the contents, which announcement shall be made in the presence of any parties bidding or their agents who are then and there present.*

To ensure there is "**social distancing**" amongst all parties in the bid opening, the bid opening will be conducted via online live streaming. The names of the vendors and their prices will be announced on the online live streaming which may be viewed by the general public and interested parties on the advertised bid date and time.

All potential bidders are to visit the board of education website and click on the link pertaining to the Opening of Bids via Online Live Streaming. [www.voorhees.k12.nj.us](http://www.voorhees.k12.nj.us)

All bids must be submitted on the **bid form** included in the specifications or be subject to rejection.

Bids will be awarded on the basis of the lowest total bidder. All bid prices shall remain firm for a period extending sixty (60) days from the indicated submission date of the opening.

Sealed bids are being solicited through a fair and open process in accordance with N.J.S.A. 19:44a-20.5 et seq.

The Board of Education reserves the right to reject any and/or all bids and to waive any informalities in the bids if that is in the best interest of the school district.

Bids are required to comply with the Affirmative Action requirements (P.L. 1975,C.127).

By order of the Voorhees Township Board of Education.

Helen G. Haley, CPA  
Business Administrator/Board Secretary

Date: June 23, 2020

# VOORHEES TOWNSHIP BOARD OF EDUCATION

## BID CHECKLIST (A)

A. Bid packages must be submitted in duplicate on the proposed forms as provided, and in the manner designated. The Board of Education will accept one original bid package, one hard copy and one copy on a USB flash drive of the bid package. Please include all items, organized as follows:

Please include all items, organized as follows:

- Bid Form
- Non-Collusion Affidavit
- Bid Bond
- Consent of Surety
- Stockholder/Partnership Disclosure and Statement of Ownership Form
- Equipment Certification Form
- Contractor Certification Form
- Subcontractors Disclosure Statement
- Prevailing Wage Certification Form
- Political Contributions Disclosure Form
- Disclosure of Investment in Iran Form
- Affirmative Action Compliance Notice Form
- Exhibit B Form
- Appendix A Form
- Total Amount of Uncompleted Contracts Form (Bidder and Subcontractors)
- Statement of No Material Change Form
- Notice of DPMC Classification
- Business Registration Certificate
- Contractor Registration Act Certificate
- Certificate of Authority
- Acknowledgement of Addenda/Clarifications

For all named subcontractors the following must also be included:

- Contractor's Registration Certificate
- New Jersey Business Registration Certificate
- Political Contribution Disclosure Form
- Notice of DPMC Classification
- Total Amount of Uncompleted Contracts – Certified
- Statement of No Material Change Form

Failure to submit the above listed documents with the bid package may be cause for rejection of the entire bid for being non-responsive (N.J.S.A. 18A:18A:2(y)).

# VOORHEES TOWNSHIP BOARD OF EDUCATION

## BID CHECKLIST (B)

### B. Reminder Checklist

As a courtesy, the Office of the School Business Administrator/Board Secretary has prepared this reminder checklist to items pertaining to this bid. The checklist is not considered to be all-inclusive. Bidders are to read and become familiar with all instructions outlined in the bid package.

| <u>Item</u>   | <u>Yes</u> | <u>No</u> |
|---|------------|-----------|
| 1. Have you verified your pricing to ensure accuracy?   |            |           |
| 2. Have you answered every question fully and accurately?   |            |           |
| 3. Have you signed all your documents ( <b>blue ink</b> )? No facsimile signature.                                      |            |           |
| 4. Have you prepared all documents for submission?  |            |           |
| 5. Did you make a copy of the bid package for your records?   |            |           |
| 6. Did you make a duplicate copy of the bid for the Board of Education as well as include the bid on a USB Flash Drive? |            |           |
| 7. Did you submit a signed Bid Guarantee? Signed Consent of Surety?   |            |           |
| 8. Did you correctly address the envelope?  |            |           |
| 9. Have you allowed ample time for the bid to reach the Business Office?  |            |           |

**VOORHEES TOWNSHIP BOARD OF EDUCATION**

**GENERAL  
SPECIFICATIONS**

**HELEN G. HALEY, CPA**

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Business Administrator/Board Secretary

# VOORHEES TOWNSHIP BOARD OF EDUCATION

## Media Center Alterations at Hamilton Elementary School – General Contractor

### INSTRUCTIONS TO BIDDERS

#### 1. CONFIDENTIALITY OF ELECTRONIC FILE TRANSMISSIONS

The Drawings, renderings, photographs, blueprints, specifications and bidding documents are considered proprietary and confidential property of the Township School District. All electronic file transfers of this information to the bidders and/or contractors is specifically designated as “confidential” and “business proprietary,” the receiving party shall keep such information strictly confidential and shall not disclose it to any other person except to (1) its employees, (2) those who need to know the content of such information in order to perform services or construction solely and exclusively for the Project, or (3) its consultants, contractors and subcontractors whose contracts include similar restrictions on the use of such confidential and proprietary information. The information transmitted in the bidding documents relates to a school construction project and the security and confidentiality of those documents is critical to the health and safety of the children. Therefore, any bidder and/or contractor and/or subcontractor discovered to have published or disseminated this information in the public domain, unless pursuant to the exceptions stated above, shall be subject to significant penalty and may not be permitted to bid on the instant project.

As a condition precedent to receipt of the Bid Documents, all bidders must agree to dispose of, destroy and/or return the information forwarded to it within three (3) days of the Bid submission date.

2. **BIDS ARE TO BE SUBMITTED TO:** **Helen G. Haley, CPA**  
**Business Administrator/Board Secretary**  
**Voorhees Township Board of Education**  
**329 Route 73**  
**Voorhees, New Jersey 08043**

BY: **2:00 p.m.** PREVAILING TIME

ON: **July 9, 2020**

by mail, delivery service or in person. Bids that are submitted are to be sealed and will be unsealed and announced at the bid opening meeting.

3. **Bid Packages to be Submitted in Duplicate.** Bids must be placed in a *sealed* envelope/package marked as shown below on the front of the envelope/package. Bid packages must be submitted **in duplicate** on the proposed bid submittal forms as provided, and in the manner designated. The Board of Education requires one original bid package, one duplicate copy of the bid package and one USB Flash Drive of the bid. The extra copies are necessary for processing of the bids. Bidders should also keep a complete copy of the bid packet, exactly as submitted.

Envelope Label Information:

|               |   |
|---------------|---|
| District:     | <b><u>Voorhees Township Board of Education</u></b>                                    |
| Contract No.: | <b><u>5</u></b>   |
| Project:      | <b><u>Media Center Alterations</u></b><br><b><u>At Hamilton Elementary School</u></b> |
| Bid Date:     | <b><u>July 9, 2020</u></b>  |
| Bid Time:     | <b><u>2:00 p.m.</u></b>   |
| Bidder:       | <i>Name of Company</i><br><i>Address</i><br><i>City, State Zip</i>                    |

**Failure to properly label the bid envelope may be cause for the rejection of the bid.**

The Board of Education does not accept electronic (e-mail) submission of bids.

**4. BID OPENING MEETING (via Online Live Stream)**

All bids will be publicly received and unsealed by the Interim School Business Administrator opened at the above address and read beginning at **2:00 p.m. on July 9, 2020** via online live stream. Bidders and/or their authorized agents, and the general public are invited to be present for the online live stream bid opening. It is the responsibility of each bidder to ensure that their bid is complete and presented to the School Business Administrator/Board Secretary prior to the advertised bid date and time. No bids received after the advertised bid date and time shall be considered by the Board of Education. (N.J.S.A. 18A:18A:21(b))

**BIDDING REQUIREMENTS**

**5. AFFIRMATIVE ACTION REQUIREMENTS**

Pursuant to N.J.A.C. 17:27-3.6 (a) (1) after notification of award, but prior to signing a construction contract, the contractor shall submit to the Public Agency Compliance Officer and the Division of Contract Compliance an initial project workforce report (Form AA-201) provided to the public agency by the Division for distribution to and completion by the contractor, in accordance with N.J.A.C.17:27-7.

All bidders should familiarize themselves with N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27 et seq. MANDATORY AFFIRMATIVE ACTION LANGUAGE CONSTRUCTION CONTRACTS, if awarded a contract, your company/firm will be required to comply with the above requirements.

All relevant questions should be related to:      Division of Contract Compliance/EEO  
Department of the Treasury / P.O. 209  
Trenton, New Jersey 08625-0209  
(609) 292-5473

**6. AMERICAN GOODS**

In accordance with N.J.S.A. 18A:18A-20, only manufactured products of the United States, wherever available, and where possible are to be used with this project.

**7. AMERICANS WITH DISABILITIES ACT**

The contractor must comply with all provisions of the Americans with Disabilities Act (ADA), P.L 101-336, in accordance with 42 U.S.C. S121 01 et seq.

**8. ANTI-BULLYING BILL OF RIGHTS — REPORTING OF HARASSMENT, INTIMIDATION AND BULLYING — CONTRACTED SERVICE**

The contracted service provider shall comply with all applicable provisions of the New Jersey Anti-Bullying Bill of Rights Act—N.J.S.A. 18A:37-13.1 et seq., all applicable code and regulations, and the Anti-Bullying Policy of the Board of Education. The district shall provide to the contracted service provider a copy of the board’s Anti-Bullying Policy.

In accordance with N.J.A.C. 6A:16-7.7 (c), a contracted service provider, who has witnessed, or has reliable information that a student has been subject to harassment, intimidation, or bullying shall immediately report the incident to any school administrator or safe schools resource officer, or the School Business Administrator/Board Secretary.

## **9. ANTI-DISCRIMINATION PROVISIONS—N.J.S.A. 10:2-1**

N.J.S.A. 10:2-1. Antidiscrimination provisions. Every contract for or on behalf of the State or any county or municipality or other political subdivision of the State, or any agency of or authority created by any of the foregoing, for the construction, alteration or repair of any public building or public work or for the acquisition of materials, equipment, supplies or services shall contain provisions by which the contractor agrees that:

a. In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates;

b. No contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex;

c. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of \$50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract; and

d. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract.

No provision in this section shall be construed to prevent a board of education from designating that a contract, subcontract or other means of procurement of goods, services, equipment or construction shall be awarded to a small business enterprise, minority business enterprise or a women's business enterprise pursuant to P.L. [1985, c.490](#) (C.18A:18A-51 et seq.).

## **10. ALTERNATIVE DISPUTE RESOLUTION PROCESS**

All disputes relating to construction contracts or relating to contracts for engineers or architects, surveyors, design or skilled services relating to construction contracts for prompt payment issues shall be submitted to the following Alternative Dispute Resolution process (“ADR”):

All disputes shall first be submitted to the architect of record, if there is one, for a determination. If thirty (30) days pass without a determination by the architect or a determination is made that does not resolve the dispute, then the claims shall be submitted for non-binding mediation by a single mediator.

The mediation shall be held where the project is located before a mediator who is mutually acceptable to the parties. The parties shall share the mediator’s fees equally. If the dispute is submitted for mediation the neutral party involved must demonstrate knowledge of the Public School Contracts Law.

Nothing shall prevent either party from seeking injunctive or declaratory relief in a court of law at any time. The alternative dispute resolution practices required by this section shall not apply to disputes concerning the bid solicitation process, or to the formation of contracts.

The Bidder further agrees to include an identical provision in all agreements with independent contractors and consultants retained for the project and to require all independent contractors to include similar mediation provisions in all agreements with subcontractors, suppliers or fabricators so retained, thereby providing for mediation as the primary method for dispute resolution between the parties to those agreements. The arbitration of claims is expressly excluded under this Contract.



If the parties cannot resolve their dispute through the mediation process, the parties are free to file an action in Camden County Superior Court of New Jersey.

#### **11. BID GUARANTEE** (N.J.S.A. 18A:18A-24)

Bidders shall submit with their bid package a bid guarantee made payable to the Voorhees Township Board of Education (“Board”). The guarantee shall be in the form of a certified check, cashier’s check or bid bond in the amount of 10% of the bid, but not in excess of \$20,000. Such deposit shall be forfeited upon refusal of a bidder to execute a contract. Any bid in the form of a check shall be returned when the contract is executed and surety (performance) bond filed with the Board of Education. The bid guarantee check for unsuccessful bidders, if requested, will be returned as soon after the bid opening as possible, but in no event later than (10) days after the bid opening.

Please note: *Uncertified business checks, personal checks or money orders are not acceptable.*

All bid bonds submitted must be signed and witnessed with original signatures. The Board will not accept facsimile or rubber stamp signatures on the bid bond. **Failure to sign the bid bond by either the Surety or Principal shall be deemed cause for disqualification of the bid.**

The Attorney-in-Fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the Power of Attorney. The Board of Education will only accept bid bonds from companies that are licensed and qualified to do business in the State of New Jersey. Such a list may be available upon request to the State of New Jersey, Department of Banking and Insurance, P.O. 325, Trenton, New Jersey 08625. **Failure to submit a bid guarantee shall be cause for disqualification and rejection of bid.**

Please note: The name, address and phone number of the Bond Underwriter as well as the Bond Number shall be included with all bonds submitted to the Board of Education.

#### **12. BID PROPOSAL FORM**

All bids are to be written in by typewriter or ink in a legible manner on the official Bid Proposal Form. Any bid price showing any erasure or alteration must be initialed by the bidder in ink, at the right margin next to the altered entry. Failure to initial any erasure or alteration may be cause to disqualify that particular bid entry. If the disqualified entry is a required one, the entire bid may be subject to rejection, so please fill out all entries with care.

The Bid Proposal Form must be duly signed by the authorized representative of the company, at the end of the Bid Proposal Form. **Failure to sign the Bid Proposal Form may be cause to disqualify the entire bid.** If the Bid Proposal Form contains more than one sheet, then bidders are requested to affix the company name and address on each intervening sheet between the front sheet and the signature sheet which already bear the company information. The Board of Education will not consider any bid on which there is any alteration to, or departure from, the bid specifications. Bidders are not to make any changes on the Bid Proposal Form or qualify their bid with conditions differing from those defined in the contract documents. If bidders do make changes on the Bid Proposal Form, except as noted above for initialed clerical mistakes, it may be cause to disqualify that particular bid as non-responsive. (N.J.S.A. 18A:18A-2(y))

The bidder also conveys by submitting a bid that the company he represents is financially solvent, experienced in and competent to perform the type of work so specified.

#### **13. BIDDER COMMENT SHEET**

This form is for the Bidder’s use in offering voluntary alternates, or other comments intended to afford the Board information or opportunities to improve the quality of the project, without invalidating the bid proposal. It may *not* be used to take exception to specific conditions of the project defined in the contract documents which the Bidder does not like. The bid provided must be based upon the plans and specifications, and all contract conditions, as stated. If these documents or conditions contain some untenable item, or extremely expensive provision, for example, to which the Bidder wishes to raise objection, this must be done at the pre-bid meeting, or in writing to the

Architect through the question process outlined in the Instructions to Bidders. Such inquiries will have response issued by addendum only, and the resulting decision circulated to all bidders of record.

#### **14. BIDDER'S RESPONSIBILITY FOR BID SUBMITTAL**

It is the responsibility of the bidder to ensure that their bid is presented to the Board of Education and officially received before the advertised date and time of the bid. It is understood and agreed upon that any person in the Board of Education will be absolved from responsibility for the premature opening of any bid not properly labeled and sealed. Failure to properly label the bid envelope may be cause for the rejection of the bid.

#### **15. BUSINESS REGISTRATION CERTIFICATE (N.J.S.A. 52:32-44)**

Pursuant to N.J.S.A. 52:32-44 as amended, all bidders or companies providing responses for requested proposals, shall submit with their response package a copy of their "New Jersey Business Registration Certificate" as issued by the Department of Treasury of the State of New Jersey.

The Voorhees Township Board of Education requests that all respondents for this bid/proposal submit a current New Jersey Business Registration Certificate with the bid/proposal.

**Failure to provide the New Jersey Business Registration Certification prior to the award of contract, will be cause for the rejection of the entire bid or proposal.**

#### **Goods, Services and Construction Contracts**

N.J.S.A. 52:32-44 imposes the following requirements on contractors and all subcontractors:

A contractor shall provide the contracting agency with the business registration of the contractor and that of any named subcontractor prior to the time a contract, purchase order, or other contracting document is awarded or authorized. At the sole option of the contracting agency, the requirement that a contractor provide proof of business registration may be fulfilled by the contractor providing the contracting agency sufficient information for the contracting agency to verify proof of registration of the contractor, or named subcontractors, through a computerized system maintained by the State.

A subcontractor named in a bid or other proposal made by a contractor to a contracting agency shall provide a copy of its business registration to any contractor who shall provide it to the contracting agency pursuant to the provisions of subsection b. of this section. No contract with a subcontractor shall be entered into by any contractor under any contract with a contracting agency unless the subcontractor first provides the contractor with proof of a valid business registration. For bids and requests for proposals, the contracting agency must retain the proof of business registration in the file where documents relating to the contract are maintained. For all other contracts, proofs of business registration shall be maintained in an alphabetical file.

The contractor shall maintain and submit to the contracting agency a list of subcontractors and their addresses that may be updated from time to time during the course of the contract performance. A complete and accurate list shall be submitted before final payment is made for goods provided or services rendered or for construction of a construction project under the contract. A contracting agency shall not be responsible for a contractor's failure to comply with this subsection.

A contractor or a contractor with a subcontractor that has entered into a contract with a contracting agency, and each of their affiliates, shall collect and remit to the Director of the Division of Taxation in the Department of the Treasury the use tax due pursuant to the "Sales and Use Tax Act," P.L. [1966, c.30](#) (C.54:32B-1 et seq.) on all their taxable sales of tangible personal property delivered into this State.

**STATE OF NEW JERSEY**  
**BUSINESS REGISTRATION CERTIFICATE**  
**FOR STATE AGENCY AND CASINO SERVICE CONTRACTORS**

DEPARTMENT OF TREASURY  
 DIVISION OF REVENUE  
 PO BOX 252  
 TRENTON, N.J. 08646-0252

|   |   |
|---|---|
| TAXPAYER NAME:<br><b>TAX REGISTRATION TEST ACCOUNT</b>      | TRADE NAME:<br><b>CLIENT REGISTRATION</b> |
| TAXPAYER IDENTIFICATION#:<br><b>970-097-382/500</b>         | SEQUENCE NUMBER:<br><b>0107230</b>        |
| ADDRESS:<br><b>847 ROEBLING AVE<br/>   TRENTON NJ 08611</b> | ISSUANCE DATE:<br><b>07/14/04</b>         |
| EFFECTIVE DATE:<br><b>01/01/01</b>                          |   |
| FORM-BRC(08-01)   | <i>J.P. S. Tully</i><br>Acting Director   |

This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address.

**STATE OF NEW JERSEY**  
**BUSINESS REGISTRATION CERTIFICATE**

|                            |                                       |
|----------------------------|---------------------------------------|
| <b>Taxpayer Name:</b>      | TAX REG TEST ACCOUNT                  |
| <b>Trade Name:</b>         |                                       |
| <b>Address:</b>            | 847 ROEBLING AVE<br>TRENTON, NJ 08611 |
| <b>Certificate Number:</b> | 1093907                               |
| <b>Date of Issuance:</b>   | October 14, 2004                      |

**For Office Use Only:**  
 20041014112823533

**SAMPLES OF  
 NEW JERSEY  
 BUSINESS  
 REGISTRATION  
 CERTIFICATES**

All respondents are urged to submit with their response, a copy of their firm’s New Jersey Business Registration Certificate. Failure to submit the Certificate prior to the award of contract will result in the rejection of the proposal.

**16. CERTIFICATE FROM SURETY COMPANY (N.J.S.A. 18A:18A-25)**

Each bidder must submit with his bid a certificate from a surety company stating that the surety company will provide the contractor with a performance bond in an amount equal to the amount of the contract (N.J.S.A. 18A: 18A-25). Such surety company must be licensed and qualified to do business in the State of New Jersey. All certificate (consent) of surety documents must be signed with original signatures.

The Board will not accept facsimile or rubberstamp signatures. The certificate (consent) of surety, together with a power of attorney must be submitted with the bid.

**Failure to submit or failure to sign the certificate (consent) of surety shall be cause for disqualification and rejection of bid.**

## 17. CHALLENGES TO BID SPECIFICATIONS (N.J.S.A. 18A:18A-15)

Any prospective bidder who wishes to challenge a bid specification shall file such challenges in writing with the School Business Administrator/Board Secretary no less than three (3) days prior to the opening of bids. **Challenges filed after that date shall be considered void and having no impact on the Board of Education or the award of a contract.**

## 18. CHANGE ORDERS (N.J.A.C. 6A:26-4.9, 4.10 et seq.) (N.J.A.C. 5:30-11.1 et seq.)

### Board of Education Approval Required; Prior to Issuance of Change Order (N.J.A.C. 5:30-11.2)

Change orders may be approved by the Board of Education in an amount up to twenty percent (20%) when necessitated by one of the following:

- Emergencies consistent with N.J.S.A. 18A:18A-7;
- Unforeseeable physical conditions; or
- Minor modification to the project/scope that achieve cost savings, improve service or resolve construction conditions.

### Division of Finance (NJDOE) Approval

All other change orders shall be approved by the Division of Finance (NJDOE) when extraordinary circumstances exist such as:

- Change order amounts greater than twenty percent (20%);
- Change orders that eliminate or affect the project scope; or
- Change orders that affect the number, size, configuration, location or use of educational spaces.

**Contractors are prohibited to perform any change order unless so directed in writing by the Board of Education.**

## 19. CONTRACTS

### A. Award of Contract; Rejection of Bid

The contract shall be awarded, if at all, to the lowest responsible bidder as determined by the Board of Education, pursuant to N.J.S.A. 18A:18A-18 (c), 18A:18A-2(s), (t), (x), (y), 18A:18A-4(a), 18A:18A-22. The Board of Education reserves the right to reject any or all bids as authorized by the Public School Contracts Law, and to waive any nonmaterial defects and/or informalities the Board feels are in the best interests of the Board. Pursuant to N.J.S.A. 18A:18A-36 (a), the Board of Education shall award the contract or reject all bids within sixty (60) days of the advertised date and time noting the exception highlighted in the law. Contractors will be required to execute a form of contract similar to attached AIA A-101-2017 and General Terms and Conditions, AIA 201-2017.

### B. Equal Prices

Pursuant to N.J.S.A. 18A:18A-37(d) when two or more bidders submit equal prices and the prices are the lowest responsible bids, the Board may award the contract to the vendor whose response, in the discretion of the Board, is the most advantageous, price and other factors considered.

### C. Return of Contracts and Related Contract Documents

Upon written notification of award of contract by the Board of Education, the contractor shall sign and execute a formal contract agreement between Board of Education and Contractor and return the executed contracts along with:

1. Performance Bond in the total amount of the contract.
2. Insurance Certificate with the Board of Education named as an additional insured.
3. Affirmative Action Form AA-201 - Initial Project Workforce Report - Yellow copy.
4. Other required documents as may be outlined in bid specifications.

The above documents may also be required for submission with the official Notice to Proceed. The contracts and related documents shall be returned to the Office of the School Business Administrator/Board Secretary within **ten (10) days of receipt of notification**. Failure to execute the contract and return said contract and related required documents within the prescribed time may be cause for the annulment of award by the Board with the bid security becoming property of the Board of Education.

D. Alterations of Contract

The Board of Education reserves the right to alter or amend the contract by adding to or subtracting from the work herein specified, such additions or omissions being done under the general conditions of these specifications and the terms of the Contract. No changes shall be permitted from the specifications except that the same be in writing and the amount of the extra compensation or credit stipulated therein. Refer to Change Order Section #15.

E. Term of Contract

The contractor, to whom the contract is awarded, will be required to do and perform the work/services and to provide and furnish the materials in connection therewith in accordance with the plans and specifications on or before the date listed in the Technical Specifications.

F. Purchase Order Required

No contractor shall commence any public works project until he is in receipt of an approved purchase order authorizing work to begin. (See Notice (Authorization) to Proceed)

## **20. CONTRACTOR'S REGISTRATION EVIDENCE**

A. Valid Certificate – Receipt of Bid

All contractors must adhere to the provisions of the Public Works Contractor Registration Act – N.J.S.A. 34:11-56.48 et seq. The PWCRA requires that “*No contractor shall bid on any contract for public work . . . unless the contractor is registered pursuant to this act.*” The law requires that all contractors and sub-contractors named in the proposal possess a valid certificate at the time the proposal is received by the contracting unit, in this case the Board of Education.

B. Submission of Certificate – Receipt of Bid; Prior to Award

All bidders shall submit with the bid package or prior to the award of contract, a current Public Works Contractor Registration Certificate that was issued prior to the receipt of the bid.

The contractor who most likely is to be considered for the contract award, must submit a copy of the current Public Works Contractor Registration Certificate, and if applicable, copies of certifications of all listed subcontractors, prior to the award of contract. If the contractor fails to provide copies of certificates prior to the award of contract, the bid may be rejected as non-responsive.

For more information contact:

Contractor Registration Unit  
Division of Wage and Hour Compliance  
New Jersey Department of Labor & Workforce Development  
PO Box 389  
Trenton, New Jersey 08625-0389  
Tel: 609-292-9464  
Fax: 609-633-8591  
E-mail: [contreg@dol.state.nj.us](mailto:contreg@dol.state.nj.us)  
Web site: [www.nj.gov/labor/Isse/Ispubcon.html](http://www.nj.gov/labor/Isse/Ispubcon.html)

## **21. CONTRACTOR/VENDOR REQUIREMENTS—OFFICE OF THE NEW JERSEY STATE COMPTROLLER**

Contractors/vendors doing business with the board of education are reminded of the following legal requirements pertaining to the Office of the New Jersey State Comptroller:

### **A. Access to Relevant Documents and Information—N.J.S.A. 52:15C-14 (d)**

Private vendors or other persons contracting with or receiving funds from a unit in the Executive branch of State government, including an entity exercising executive branch authority, independent State authority, public institution of higher education, or unit of local government or board of education shall upon request by the State Comptroller provide the State Comptroller with prompt access to all relevant documents and information as a condition of the contract and receipt of public monies. The State Comptroller shall not disclose any document or information to which access is provided that is confidential or proprietary. If the State Comptroller finds that any person receiving funds from a unit in the Executive branch of State government, including an entity exercising executive branch authority, independent State authority, public institution of higher education, or unit of local government or board of education refuses to provide information upon the request of the State Comptroller, or otherwise impedes or fails to cooperate with any audit or performance review, the State Comptroller may recommend to the contracting unit that the person be subject to termination of their contract, or temporarily or permanently debarred from contracting with the contracting unit.

### **B. Maintenance of Contract Records—N.J.A.C. 17:44-2.2**

Relevant records of private vendors or other persons entering into contracts with covered entities are subject to audit or review by OSC pursuant to N.J.S.A. 52:15C-14(d).

The contractor/vendor to whom a contract has been awarded, shall maintain all documentation related to products, transactions or services under this contract for a period of five years from the date of final payment. Such records shall be made available to the New Jersey Office of the State Comptroller upon request.

## **22. CRIMINAL HISTORY BACKGROUND CHECKS--REQUIRED**

**STUDENT AND FACULTY SAFETY REQUIREMENTS:** During the performance of this contract, neither the Contractor nor any Subcontractor, where applicable, shall knowingly allow any employee registered pursuant to NJSA 2C:7-1, et seq “Megan’s Law” as a Tier 3 offender (“sex offenders determined to pose a relatively high risk of re-offense”) or a Tier 2 offender (“sex offenders determined to pose a moderate risk of re-offense”), upon the Owner’s property or the Project site. Accordingly, the Contractor will be required, at no additional cost to the Owner, to have all on-site Contractor or Subcontractor employees, screened via an Owner Provided Visitor Management screening and badging system (LobbyGuard, T-Pass or approved equal) in order to conduct security checks on its employees and subcontractors and to ensure compliance with these Student and Faculty Safety Requirements. All employees of the Contractor and any Subcontractor, where applicable, will be required to wear picture identification cards in a visible manner while working on the Owner’s premises. During the performance of this contract, neither the Contractor nor any Subcontractor, where applicable, shall knowingly allow any employee to enter any area of the Project where students or faculty are present, without first providing the Owner with a written list setting forth the identity of the employees.

1. The successful Bidder will be expected after contract award to comply with and complete all required forms, written authorizations and/or other information issued by the District for the disclosure of information in accordance with the mandates of N.J.S.A. 18A:6-7.7 et seq. which concerns prior acts and/or investigations of sexual misconduct and/or child abuse for those contracted service providers who are employed in positions which involve regular contact with students. The successful Bidder is further notified that failure to provide truthful information or willfully failing to disclose information required by N.J.S.A. 18A:6-7.7 et seq., may subject the successful Bidder to discipline up to, and including, termination or denial of employment; may be a violation of N.J.S.A. 2C:28-3; and may be subject to a civil penalty of not more than \$500, which shall be collected in proceedings in accordance with the “Penalty Enforcement Law of 1999,” P.L. 1999, c. 274.

**23. DEBARMENT, SUSPENSION, OR DISQUALIFICATION – (N.J.A.C. 17:19-4.1)**

The Board of Education will not enter into a contract for work with any person, company or firm that is on the State Department of Labor and Workforce Development; Prevailing Wage Debarment List, or the State of New Jersey Consolidated Debarment Report ([www.state.nj.us/treasury/debarred](http://www.state.nj.us/treasury/debarred)) or the Federal System for Award—SAM.gov.

All bidders are required to submit a sworn statement indicating whether or not the bidder is, at the time of the bid, included on the State Department of Labor and Workforce Development; Prevailing Wage Debarment List or the State of New Jersey Consolidated Debarment Report, or the Federal Debarred Vendor List--Excluded Parties List System, through the System for Award Management portal—SAM.gov.

**24. DOCUMENTS, MISSING/ILLEGIBLE**

The bidder shall familiarize himself with all forms provided by the Board that are to be returned with the bid. If there are any forms either missing or illegible, it is the responsibility of the bidder to contact the School Business Administrator/Board Secretary during regular business hours or the architect of the project as outlined in the bid advertisement for duplicate copies of the forms. This must be done before the bid date and time. The Board accepts no responsibility for duplicate forms that were not received by the bidder in time for the bidder to submit with his bid.

\*Forms provided by the Board of Education that must be returned with bid are referenced in the proceeding checklist.

**25. DOCUMENT SIGNATURES – ORIGINAL; BLUE INK**

All documents returned to the Board shall be signed in ink (blue) with an original signature. Failure to sign and return all required documents with the bid package may be cause for disqualification and for the bid to be rejected pursuant to N.J.S.A. 18A:18A-2(y) (non-responsive). The Board will not accept facsimile or rubber stamp signatures.

Checklist of Required Documents (Forms Provided in Bid Package)

- Acknowledgement of Addenda**
  - Bid Proposal Form
  - Bidder Comments Form
- Chapter 271 Political Disclosure Form
- Contractor Questionnaire/Certification  
Contractor’s Registration Certification
- Equipment Certification
- Iran Disclosure of Investment Activities
- Non-Collusion Affidavit
- Prequalification Affidavit  
Prevailing Wages Certification
- Stockholders’ /Partnership Disclosure Affidavit/Ownership Declaration
- Subcontractor’s Disclosure Statement

*Please check your bid package for these forms!*

**Reminder – Original Bid and One Copy of Bid Package and One USB Flash Drive**

Bid packages are to be submitted in duplicate on the proposed forms as provided and the manner designated. The Board of Education will accept one original bid package, one copy of the bid package and one USB Flash Drive.

**26. EQUIPMENT CERTIFICATION (N.J.S.A. 18A:18A-23)**

Each bidder shall provide a certification showing that he owns, leases or controls all the necessary equipment required by the specifications. If the bidder is not the actual owner or lessee of any such equipment, he shall submit a certificate stating the source from which the equipment will be obtained and shall obtain a certificate from the owner and person in control of the equipment, definitely granting to the bidder the control of the equipment required during such time as may be necessary for the completion of that portion of the contract for which it is necessary.

The certificates are to be submitted with the bid. If the contract involves the installation of a manufactured system which requires the contractor to have special knowledge or training, or to be specifically certified by the manufacturer to install their system, this form is used to submit such required evidence of the bidder's approval from the manufacturer.

**27. EXAMINATION OF SPECIFICATIONS, ACKNOWLEDGEMENT**

The bidder, by submitting a proposal, acknowledges that he has carefully examined the bid specifications, documents, addenda (if any), and the site; and that from his investigation, he has satisfied himself as to the nature and location of the work, the general and local conditions and all matters which may in any way affect the work or its performance, and that as a result of such examination, he fully understands the intent and purpose thereof, his obligations thereunder, and that he will not make any claim for, or have any right to damages, because of the lack of any information.

Each bidder submitting a bid for a service contract shall include in his bid price all labor, materials, equipment, services, and other requirements necessary, or incidental to, the completion of the work, and other pertinent work as hereinafter described, or work that can be reasonably inferred from the specifications and documents, in accordance with the bid specifications and documents.

**28. FALSE MATERIAL REPRESENTATION – (N.J.S.A. 2C:21-34-97(b))**

A person commits a crime if the person knowingly makes a material representation that is false in connection with the negotiation, award or performance of a government contract. If the contract amount is for \$25,000.00 or above, the offender is guilty of a crime of the second degree. If the contract amount exceeds \$2,500.00, but is less than \$25,000.00, the offender is guilty of a crime of the third degree. If the contract amount is for \$2,500.00 or less, the offender is guilty of a crime of the fourth degree.

**29. FORCE MAJEURE**

Neither party shall be liable in damages for any failure, hindrance or delay in the performance of any obligation under this Agreement if such delay, hindrance or failure to perform is caused by conditions beyond the control of either party, including, but not limited to, Acts of God, flood, fire, war or the public enemy, explosion, government regulations whether or not valid (including the denial or cancellation of any export or other necessary license), court order, state funding, or other unavoidable causes beyond the reasonable control of the party whose performance is affected which cannot be overcome by due diligence.

Vendors, and/or contractors who have a contract with the Board of Education to provide goods or services cannot unilaterally claim an increase in the cost of the contract because of Force Majeure.

**30. INSURANCE AND INDEMNIFICATION**

The bidder to whom the contract is awarded for any service work or construction work shall secure, pay the premiums for and keep in force until the contract expires, insurance of the types and amounts listed below:

- .1 Commercial General Liability, Each Occurrence
  - a. Each Occurrence: \$ 1,000,000.00
  - b. Damage to Rented Premises: \$ 300,000.00



- c. Medical Expense (Any one person): \$ 10,000.00
  - d. Personal & Adv Injury: \$ 1,000,000.00
  - e. General Aggregate: \$ 2,000,000.00
  - f. Products – Comp/Op Agg: \$ 1,000,000.00
- .2 Excess Umbrella Liability: \$ 4,000,000.00
- .3 Automobile Liability: (Hired autos, scheduled autos, non-owned autos)
- a. Combined Single Limit (each accident): \$ 1,000,000.00
- .4 Workers Compensation and Employers Liability:
- a. WC Statutory Limits:
    - 1. E.L. Each Accident: \$ 1,000,000.00
    - 2. E.L. Disease – Each Employee: \$ 1,000,000.00
    - 3. E.L. Disease – Policy Limit: \$ 1,000,000.00
- .5 Builder's Risk Insurance: The Contractor shall provide Builder's Risk Insurance for all risk of physical loss or damage to the property described hereunder in an amount equal to the Total Project Value, and furnished under Construction Contracts for the School Facilities Project; excepting excavations, foundations and other structures customarily excluded by such insurance. The Policy shall name the Owner, State of New Jersey, the New Jersey Department of Education, New Jersey Schools Development Authority, and the New Jersey Economic Development Authority as loss payee as their interests may appear on a primary and non-contributory basis. The Builders Risk Policy is to include coverage for the perils of Earthquake, Flood, Full Windstorm, Equipment Breakdown and Theft (excluding employee theft), contain an endorsement allowing permission to occupy and include coverage for both transit and offsite storage. The policy is also to include all contractors, subcontractors and sub-subcontractors as well as the Owner, State of New Jersey, the New Jersey Department of Education, New Jersey Schools Development Authority, and the New Jersey Economic Development Authority, LAN Associates as Additional Named Insureds on a primary and non-contributory basis. The contractor and all subcontractors are responsible for all policy deductibles and uninsured or underinsured losses.
- .6 The Policy shall name the following as Additional Insured:
- Voorhees Township Board of Education; LAN Associates Engineering, Planning, Architecture, Surveying, Inc.; the State of New Jersey; the New Jersey Department of Education; New Jersey Schools Development Authority; and the New Jersey Economic Development Authority as additional insureds on a primary and non-contributory basis**
- .7 Contractual liability insurance as applicable to the Contractor's obligations under Paragraph 3.18 of the AIA General Conditions.
- .8 Workers' Compensation Insurance of not less than statutory limits.
- .9 Completed Operations Insurance written to the limits specified for liability insurance specified under subparagraph .1 above. Coverage shall be required from the date of the start of Beneficial Occupancy until one year after the issuance date of Final Certificate for Payment.
- .10 Certificates of insurance must be submitted on the ACORD Form, Certificate of Insurance. Contractor's ACORD Certificate of Insurance must state "Contractual Liability Included" or it will be rejected.
- .11 The successful bidder shall either

- .1 require each of his subcontractors to procure and to maintain during the life of their subcontracts, Subcontractor's Public Liability and Property Damage, of the type and in the same amounts as specified in the preceding paragraph; or
- .2 insure the activities of their subcontractors under their respective policies.

**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 successful bidder shall provide notice to the District of such impending or actual cancellation or expiration.

**(B) Indemnification**

The contractor shall assume all risk of and responsibility for, and agrees to indemnify, defend, and save harmless the Board and its agents, employees and Board members, from and against any and all claims, demands, suits, actions, recoveries, judgments and costs and expenses (including, but not limited to, attorney's fees) in connection therewith on account of the loss of life or property or injury or damage to any person, body or property of any person or persons whatsoever, which shall arise from or result directly or indirectly from the work and/or materials supplied under this contract or the performance of services by the contractor under the agreement or by a party for the whole contract is liable. This indemnification obligation is not limited by, but is in addition to, the insurance obligations contained in this agreement.

The Contractor is to assume all liability of every sort incident to the work, including property damage caused by him or his men or by any subcontractor employed by him or any of the subcontractor's men.

**31. INTERPRETATIONS AND ADDENDA (N.J.S.A. 18A:18A-21(c) (2))**

No interpretation of the meaning of the specifications will be made to any bidder orally. Every request for such interpretations should be made in writing to the School Business Administrator/Board Secretary and must be received at least ten (10) business days, not including Saturdays, Sundays and holidays, prior to the date fixed for the opening of bids to be given consideration. Any and all interpretations and any supplemental instructions will be distributed in the form of written addenda to the specifications. The addenda will be provided in accordance with N.J.S.A. 18A:18A-21(c) (2) to the bidder by certified mail or certified fax no later than seven (7) days, Saturdays, Sundays, or holidays prior to the date for acceptance of the bids. All addenda so issued shall become part of the contract document.

**32. IRAN DISCLOSURE OF INVESTMENT ACTIVITIES- (N.J.S.A. 18A:18A-49.4)**

The Voorhees Township Board of Education, pursuant to N.J.S.A. 18A:18A-49.4, shall implement and comply with Public Law 2012, c.25, Disclosure of Investment Activities in Iran—N.J.S.A. 52:32-55 et seq.

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract, must complete a certification attesting, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran.

The Chapter 25 list is found on the Divisions website

<http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf>.

If the Board determines that a person or entity has submitted a false certification concerning its engagement in investment activities in Iran under section 4 of P.L.2012, c.25 (C.52:32-58), the board shall report to the New Jersey Attorney General the name of that person or entity, and the Attorney General shall determine whether to bring a civil action against the person to collect the penalty prescribed in paragraph (1) of subsection a. of section 5 of P.L.2012, c.25 (C.52:32-59).

In addition, bidders must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes on the lower portion of the enclosed form.

The Board has provided within the specifications, a Disclosure of Investments Activities certification form for all persons or entities, that plan to submit a bid, respond to a proposal, or renew a contract with the board, to complete, sign and submit with the proposal.

**Failure to complete, sign and submit the Disclosure of Investment Activities in Iran form with the bid/proposal shall be cause for rejection of the proposal.**

### **33. LIABILITY – COPYRIGHT**

The contractor (vendor) shall hold and save the Board of Education, its officials and employees, harmless from liability of any nature or kind for or on account of the use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of his contract.

### **34. LIQUIDATED DAMAGES**

The contractor agrees to substantially complete this public works project to the complete satisfaction of the Board of Education by the stated contract completion date or within the number of working days so specified in the contract.

Failure to complete the project within the specified time frame or contract completion date shall lead to the Board of Education assessing liquidated damages against the contractor in accordance with and pursuant to N.J.S.A. 18A:18A-41 and 18A:18A-19.

For each calendar day thereafter that the work included under this contract remains uncompleted in accordance with the provision of the contract or not completed to the satisfaction of the Board of Education, the Board shall assess liquidated damages in the amount of \$1,000.00 per calendar day.

The Board may assess liquidated damages by deducting the amount from monies which may due or become due to the contract.

The Board may also assess the contractor additional damages for costs the Board may incur because each day the project remains uncompleted. These costs include but are not limited to:

- Construction management fees
- Architect/engineer fees
- Legal Fees
- District administrative costs
- Any inspector or inspectors necessarily employed by the Board of Education on the work, for any number of days in excess of the number allowed in the specifications

The Board of Education may also assess against all monies owed to the contractor, liquidated damages for the violation of any terms and conditions of the contract or agreement by the contractor or the failure to perform said contract or agreement in accordance with its terms and conditions or the terms or conditions of the “Public School Contracts Law,” in accordance with and pursuant to N.J.S.A. 18A:18A-19 and 18A:18A-41.

**35. MAINTENANCE BONDS**

The successful bidder shall furnish a Maintenance Bond for the total sum of the contract price, indemnifying the Board of Education against defects in construction for a period of two (2) years after the completion of the work, general wear and tear excepted.

The condition of this obligation is such that if the successful contractor shall indemnify and hold harmless the Board of Education from and against all losses, costs, damages and expenses, whatsoever, which the Board may suffer or compelled to pay by reason of the failure of the successful contractor to indemnify the Board against defects in construction for a period of two (2) years after the completion of the work.

**36. NON-COLLUSION AFFIDAVIT (N.J.S.A. 52:34-15)**

A notarized Non-Collusion Affidavit shall be submitted with the bid/proposal. The bidder/respondent has to certify that he has not directly or indirectly, entered into any agreement, participated in any collusion, discussed any or all parts of this proposal with any potential bidders, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named bid, and that all statements contained in said Proposal and in this affidavit are true and correct, and made with full knowledge that the Board of Education relies upon the truth of the statements contained in said Proposal and in the statements contained in this affidavit in awarding the contract for the said bid.

The respondent has to further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees of bona fide established commercial or selling agencies maintained by the respondent.

The Voorhees Township Board of Education has provided a Non-Collusion Affidavit form here within the specifications package. All respondents are to complete, sign, have the signature notarized and submit the form with the proposal response.

**Failure to submit the Non-Collusion Affidavit with the proposal may be cause for the disqualification of the proposal.**

**37. NOTICE (AUTHORIZATION) TO PROCEED (N.J.S.A. 18A:18A-36(b))**

The contractor shall not perform any work, or provide any services, materials, supplies until a Notice (Authorization) to Proceed is received from the Office of the School Business Administrator/Board Secretary. (N.J.S.A. 18A:18A-36(b)).

The Board of Education only recognizes the receipt by the contractor of an approved signed purchase order as a Notice to Proceed. No word of mouth, phone, fax, e-mail, letter or other form of communication to proceed is a valid Notice to Proceed.

It is the intention of the Board to officially notify the Contractor, to whom the contract was awarded, through a Notice to Proceed letter issued by the School Business Administrator/Board Secretary. A purchase order will accompany the Notice to Proceed letter. The contractor shall submit certain documents to the Board as so requested in the Notice to Proceed letter.

**38. PAYMENTS**

Every effort will be made to pay vendors and contractors within thirty (30) to sixty (60) days provided the Board of Education receives the appropriate documentation including but not limited to:

- Signed voucher by vendor
- Packing slips
- Invoices

Payment will be rendered upon completion of services or delivery of full order to the satisfaction of the Board of Education, unless otherwise agreed to by written contract or mandated by N.J.S.A. 18A:18A-40.1. The Board may, at its discretion make partial payments.

All payments are subject to approval by the Board of Education at a public meeting. Payment may be delayed from time to time depending on the Board of Education meeting schedule.

### **39. PAYMENT, PARTIAL, WITHHOLDING**

#### **A. Contract Thresholds; Partial Payments/Withholding**

1. Contracts – Less than \$100,000 – Lump Sum Payment

Public works contracts less than \$100,000 shall be paid in one lump total sum, upon completion of the project and to the satisfaction of the Board of Education.

2. Contracts – Exceeding \$100,000 – Monthly Payments

Public works contracts that exceed \$100,000 shall be paid with partial payments on a monthly basis for work that was completed to the satisfaction of the Board of Education.  
(Ref. N.J.S.A. 18A:18A-40.1)

3. Withholding of Monies – Percentage to be Withheld

The Board of Education shall withhold the following percentages of outstanding balances of monies owed to contractors:

Balances Exceeding \$500,000 -- Two (2%) Per Cent  
Balances Less than \$500,000 -- Five (5%) Per Cent

The amounts withheld shall be returned to the contracts upon fulfillment of the terms of the contract.  
(Ref. N.J.S.A. 18A:18A-40.1)

#### **B. Prompt Payment**

The Board of Education will provide payment in accordance with the “Prompt Payment” law as codified in N.J.S.A. 2A:30A-1 et seq. All payments to contractors are subject to approval by the Board of Education at a public meeting.

The Board of Education generally holds its Regular Public Meeting on the 4<sup>th</sup> Thursday of each month. It is at these meetings that the Board of Education reviews payment of bills.

All bills submitted to the Board for approval and payment pursuant to N.J.S.A. 2A:30A-1 et seq. must comply with the following provisions. The “billing date” shall be the date that the contractor signs the certification on the voucher/purchase order that the work has been performed. These bills include all bills for improvements to real property and contracts for engineers, architects, surveyors, design or skilled services relating to construction work.

Bills that are required to be approved by an engineering or architecture firm (prior to submission to the Board for approval) for purposes of confirmation of successful completion of construction work, shall be approved or disapproved within twenty (20) days of submission of same to the architect or engineer. If bills are disapproved or monies withheld from payment, the notice of the reason for same shall be given within the same twenty (20) days to the contract.

The Board must approve payment of all bills. For the Board to consider a bill for approval it must be submitted to the School Business Administrator/Board Secretary at least two weeks prior to a scheduled/or re-scheduled Board meeting date. If the Board, or any agent or officer of the Board, determines that the bill is not approved then notice of the disapproval shall be sent to the contractor with five (5) days of the Board meeting on which the bill was listed for approval.

If the bill is approved by the Board, then payment shall be made to the contractor with seven (7) days of the Board meeting as per the “payment cycle.”

**40. PERFORMANCE BOND/CONTRACT AMOUNT (N.J.S.A. 2A:44-143/2A:44-147)**

- A. The contractor shall furnish a Performance, Payment and Completion Bond in a sum of at least one hundred percent (100%) of the total amount payable by the terms of his Contract. Such written guarantee shall be made payable to the Voorhees Township Board of Education and shall be in the form required by Statute. Attached to the performance bond shall be a Surety Disclosure Statement and Certification which shall be complete in all respects and duly acknowledged according to law. A model Surety Disclosure Statement and Certification is presented in the Appendix Section of this proposal.
- B. Such bond shall further carry a stipulation that no advance, premature, excessive or delayed payments by the Board shall in any way affect the obligation of the Surety on its bond.
- C. Such bond shall further stipulate that no payments made to the contractor, nor partial or entire use of occupancy of the work by the Board shall be an acceptance of any work or materials not in accordance with this Contract and the Surety shall be equally bound to the same extent as the Contractor.
- D. It is expressly stipulated that the Surety for the Contractor on the project shall be obligated to make periodic inquiries of the Board at reasonable times, to determine whether its Principal has performed or was performing the Contract in accordance with all of its terms and conditions, particularly in relation to the progress payments scheduled under said Contract with the Board.
- E. In the event the Contractor defaults or fails to perform or finish the work prescribed under the Contract for any reason whatsoever, it shall become the unqualified obligation the Surety for the defaulting contractor to complete the Contract in accordance with its terms following receipt of notice from the Board of such default.
- F. The Board shall only accept one payment and performance bond to cover this public works contract. The performance bond shall contain language as found in N.J.S.A. 2A:44-14. The bond form language is presented in the Appendix Section of this proposal.
- G. Such Performance, Payment and Completion Bond shall be executed and delivered to the Board of Education when so requested by the Notice to Proceed Letter or within ten (10) days after the award of contract.
- H. The Board of Education will only accept performance bonds from surety companies that are licensed and qualified to do business in the State of New Jersey, and if the amount of the bond is \$850,000 but not more than \$3.5 million, the surety shall hold a current certificate of authority, issued by the United States Secretary of the Treasury pursuant to 31 U.S.C. 9305. (N.J.S.A. 2A:44-143 (b))

Please note: The name, address, and phone number of the Bond Underwriter as well as the Bond Number shall be included with all bonds submitted to the Board of Education and must be duly signed with original signatures.

## **42. POLITICAL CONTRIBUTIONS DISCLOSURE – REQUIREMENTS**

### **Annual Disclosure**

A business entity as defined by law is advised of its responsibility to file an annual disclosure statement on political contributions with the New Jersey Election Law Enforcement Commission pursuant to N.J.S.A. 19:44A-20.13 (P.L. 2005 Chapter 271 section 3) if the business entity receives contracts in excess of \$50,000 from public entities in a calendar year. It is the business entity's responsibility to determine if filing is necessary. Additional information on this requirement is available from the New Jersey Election Law Enforcement commission at 1-888-313-3532 or at [www.elec.nj.us](http://www.elec.nj.us).

### **Chapter 271 Political Contribution Disclosure Form**

Business entities (contractors) receiving contracts from a public agency that are NOT awarded pursuant to a "fair and open" process (defined at N.J.S.A. 19:44A-20.7) are subject to the provisions of P.L. 2005, c. 271, s.2 (N.J.S.A. 19:44A-20.26). This law provides that 10 days prior to the award of such a contract, the contractor shall disclose contributions to:

- any State, county, or municipal committee of a political party
- any legislative leadership committee\*
- any continuing political committee (a.k.a., political action committee)
- any candidate committee of a candidate for, or holder of, an elective office:
  - of the public entity awarding the contract
  - of that county in which that public entity is located
  - of another public entity within that county
  - or of a legislative district in which that public entity is located or, when the public entity is a county, of any legislative district which includes all or part of the county.

The disclosure must list reportable contributions to any of the committees that exceed \$300 per election cycle that were made during the 12 months prior to award of the contract. See N.J.S.A. 19:44A-8 and 19:44A-16 for more details on reportable contributions.

The Voorhees Township Board of Education has provided a Chapter 271 Political Contribution Disclosure Form within the specifications package for use by the business entity. The Board has also provided a list of agencies to assist the contractor. The enclosed list of agencies is provided to assist the contractor in identifying those public agencies whose elected official and/or candidate campaign committees are affected by the disclosure requirement. It is the contractor's responsibility to identify the specific committees to which contributions may have been made and need to be disclosed. The disclosed information may exceed the minimum requirement.

The enclosed Chapter 271 Political Contribution Disclosure form, a content-consistent facsimile, or an electronic data file containing the required details (along with a signed cover sheet) may be used as the contractor's submission and is disclosable to the public under the Open Public Records Act.

### **POLITICAL CONTRIBUTIONS/AWARD OF CONTRACTS**

Pursuant to N.J.A.C. 6A:23A-6.3 (a) (1-4) please note the following:

#### **Award of Contract -- Reportable Contributions -- N.J.A.C. 6A:23A-6.3 (a) (1)**

"No board of education will vote upon or award any contract in the amount of \$17,500 or greater to any business entity which has made a contribution reportable by the recipient under P.L.1973, c83 (codified at N.J.S.A. 19:44A-1 et seq.) to a member of the board of education during the preceding one year period.

#### **Contributions During Term of Contract – Prohibited -- N.J.A.C. 6A:23A-6.3 (a) (2-3)**

"Contributions reportable by the recipient under P.L. 1973, c83 (codified at N.J.S.A. 19:44A-1 et seq.) to any member of the school board from any business entity doing business with the school district are prohibited during the term of the contract."

“When a business entity referred in 4.1(e) is a natural person, contribution by that person’s spouse or child that resides therewith, shall be deemed to be a contribution by the business entity. When a business entity is other than a natural person, a contribution by any person or other business entity having an interest therein shall be deemed to be a contribution by the business entity.”

Chapter 271 Political Contribution Disclosure Form – Required -- N.J.A.C. 6A:23A-6.3 (a) (4)

All business entities shall submit with their bid/proposal package a completed and signed Chapter 271 Political Contribution Disclosure Form. The Chapter 271 form will be reviewed by the Board to determine whether the business entity is in compliance with the aforementioned N.J.A.C. 6A:23A-6.3 (a) (2) Award of Contract.

**The Chapter 271 Political Contribution Disclosure form shall be submitted with the response to the bid/proposal or no later than ten (10) days prior to the award of contract. Failure to provide the completed and signed form shall be cause for disqualification of the bid/proposal.**

**42. PRE-BID MEETINGS**

The pre-bid meeting is an important part of the bidding process. It allows all bidders to have an equal understanding of the procurement requirements and of the scope of work involved. Although pre-bid meetings are not mandatory, all potential bidders are strongly encouraged to attend. Please review the General Specifications for a pre-bid meeting announcement. Any or all changes to the bid specifications discussed as a result of the Pre-Bid Meeting will be formalized in the form of any written addenda to the specifications and distributed in accordance with N.J.S.A. 18A:18A-21(c) (2).

**43. PRE-QUALIFICATION OF BIDDERS**

- A. Pursuant to N.J.S.A. 18A:18A-26, 27 et seq., all bidders on any contract for public work(s) which the entire cost of the contract exceeds \$20,000.00, must be pre-qualified by the Department of Treasury, Division of Property Management and Construction, as to character and amount of public work on which they may submit bids. No person shall be qualified to bid on any public work contract with the Board if he has not submitted a statement to the Department of Treasury, Division of Property Management and Construction which fully develops the financial ability, adequacy of plant and equipment, organization and prior experience of the prospective bidder, and such other pertinent and material facts, within a period of one year preceding the date of opening of the bids for such contract.
- B. Every pre-qualified bidder must submit with his proposal, a notarized affidavit setting forth the type of work and the amount of work for which he has been qualified, that there has been no material adverse change in his qualification information, the total amount of completed work on contracts at the time and date of the classification. Any bid not including a copy of this affidavit shall be rejected as being non-responsive to bid requirements. (N.J.S.A. 18A:18A-32) (**Prequalification Affidavit**)
- C. All bidders shall furnish satisfactory evidence that he and his subcontractors have sufficient means and experience in the type of work to complete the project in accordance with the bid specifications. A subcontractor listing and bidder’s personnel and experience sheet shall be submitted to the Board as part of the bidding documents. Where the bidder intends to subcontract any portion of the project, the cost of which will exceed \$20,000.00, the sub-contractor shall be pre-qualified to perform the work and the bidder shall submit the requisite documentation pertaining to the sub-contractor in accordance with Paragraphs A and B above. The Board may make such additional investigations as it deems necessary to determine the ability, competence and financial responsibility of the bidder to perform the work. The bidder shall furnish the Board with the information and data for this purpose upon request. The Board reserves the right to reject any bid if the information fails to establish to the Board’s satisfaction that the bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated here.
- D. **Notice Of Classification** (For Contracts Exceeding \$20,000) (N.J.S.A. 18A:18A-26 et seq.)

Each bidder shall submit with his/her bid a copy of a valid and active Notice of Classification letter issued by the Department of Treasury, Division of Property Management and Construction as appropriate to the nature of the bid. Any bid submitted to a school board under the terms of New Jersey Statutes not including



a copy of a valid and active classification letter shall be rejected as being non-responsive to bid requirements.

“The Board of Education, through its authorized agent, shall upon completion of the contract report to the State agency listed on the pre-qualification/classification letter as to the contractor’s performance and shall furnish such report from time to time during performance if the contractor is then in default”.

- E. **Uncompleted Contracts** (For Contracts Exceeding \$20,000) (N.J.A.C. 17:19-2.13)  
The Board also requires that each bidder submit with his bid a certified Total Amount of Uncompleted Contracts form as prescribed by law. (Form DPMC 701)
- F. **Prequalification Affidavit** (For Contracts Exceeding \$20,000)  
Pursuant to N.J.S.A. 18A:18A-32, every bidder shall submit with his bid a prequalification affidavit.

#### **44. PREVAILING WAGES: CONSTRUCTION, ALTERATIONS, REPAIRS**

The State of New Jersey Prevailing Wage Act, Chapter 150 Laws of 1963 with applicable wage rates for Camden County as published by the Department of Labor and Workforce Development in conformance with N.J.S.A. 34:1156:25, is hereby made a part of these Contract Documents. Copies of these wage rates may be obtained from the State Department of Labor and Workforce Development, and/or viewed at [www.state.nj.us/labor](http://www.state.nj.us/labor), the Prevailing Wages Determination Section.

##### **Certified Payrolls**

Contractor agrees to submit to the Board of Education a certified payroll for each payroll period within ten (10) days of the payment of wages. Contractor further agrees that no payments will be made to the Contractor if certified payrolls are not received. It is the Contractor's responsibility to insure timely receipt by the district of certified payrolls.

Before final payment, the contractor shall furnish the Board of Education with an affidavit stating that all workers have been paid the prevailing rate of wages in accordance with State of New Jersey requirements. The contractor shall keep an accurate record showing the name, craft, or trade and actual hourly rate of wages paid to each workman employed by him in connection with this work. Upon request, the Contractor(s) and each Subcontractor shall file written statements certifying to the amounts then due and owing to any and all workmen for wages due on account of the work. The statements shall be verified by the oaths of the Contractor or Subcontractor, as the case may be.

##### **Posting of Prevailing Wages**

The contractor shall post the prevailing wage rates for each craft and classification involved in the work, including the effective date of any changes thereof, in prominent and easily accessible places at the Site of the work and in such place or places as used to pay workmen their wages. (Ref. 18A:7G-23 and N.J.S.A. 34:11-56.32. The bidder shall submit a Prevailing Wages Certification with its bid package.

#### **45. QUALIFICATION OF BIDDERS** - Contractor Questionnaire Certification Form

The Board of Education may make such investigations as it seems necessary to determine the ability of the bidder to perform the terms of the contract. The bidder shall complete a Contractor Questionnaire Certification Form and return same with the bid and shall furnish all information to the Board as the Board may be required to determine the contractor’s ability to perform the duties and obligations as outlined in these specifications.

All bidders are reminded that bids may be rejected as not being responsive pursuant to N.J.S.A. 18A:18A-2(y) and therefore bidders are asked to complete the Questionnaire and to provide any supporting documentation with the bid package.

#### **46. RESIDENT CITIZENS; PREFERRED IN EMPLOYMENT ON PUBLIC WORKS CONTRACTS**

All bidders are to familiarize themselves with N.J.S.A. 34:9-2, which requires the contractor of any public work project to give preference in employment on the project, to citizens of the state of New Jersey. If the terms and

conditions of N.J.S.A. 34:9-2 are not complied with, the contract shall be voidable. The Board is obligated to file with the Commissioner of Labor, the names and addresses of all contractors holding contracts with this project.

**47. RENEWAL OF CONTRACT; AVAILABILITY AND APPROPRIATION OF FUNDS**

The Board of Education may, at its discretion, request that a contract that is subject to renewal, be renewed in full accordance with N.J.S.A. 18A:18A-42. The School Business Administrator/Board Secretary may negotiate terms for a renewal of contract proposal and present such negotiated proposal to the Board of Education. The Board of Education is the final authority in awarding renewals of contracts. All multi-year contracts and renewals are subject to the availability and appropriation annually of sufficient funds as may be needed to meet the extended obligation.

**48. RIGHT TO KNOW LAW**

All potentially hazardous materials or substances must be properly labeled in full accordance with the New Jersey Right to Know Law - N.J.S.A. 34:5A-1 et seq. All contractors or vendors who need additional information about the New Jersey Right to Know Law are to contact the:

New Jersey Department of Health  
Right to Know Program  
CN 368  
Trenton, New Jersey 08625-0368  
[rtk@doh.state.nj.us](mailto:rtk@doh.state.nj.us)

**49. STOCKHOLDERS' DISCLOSURE (N.J.S.A. 52:25-24.2)**

No corporation, partnership or limited liability company, shall be awarded any contract nor shall any agreement be entered into for the performance of any work or the furnishing of any materials or supplies, the cost of which is to be paid with or out of any public funds, by the State, or any county, municipality or school district, or any subsidiary or agency of the State, or of any county, municipality or school district, or by any authority, board, or commission which exercises governmental functions, unless prior to the receipt of the bid or accompanying the bid, of said corporation, said partnership, or said limited liability company, there is submitted a statement setting forth the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock, of any class or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. If one or more such stockholder or partner or member is itself a corporation or partnership, or limited liability company, the stockholders holding 10 percent or more of that corporation's stock, or the individual partners owning 10 percent or greater interest in that partnership, or the members owning 10 percent or greater interest in that limited liability company, as the case may be, shall also be listed. The disclosure shall be continued until names and addresses of every non corporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established in this act, has been listed.

To comply with this section, a bidder with any direct or indirect parent entity which is publicly traded may submit the name and address of each publicly traded entity and the name and address of each person that holds a 10 percent or greater beneficial interest in the publicly traded entity as of the last annual filing with the federal Securities and Exchange Commission or the foreign equivalent, and, if there is any person that holds a 10 percent or greater beneficial interest, also shall submit links to the websites containing the last annual filings with the federal Securities and Exchange Commission or the foreign equivalent and the relevant page numbers of the filings that contain the information on each person that holds a 10 percent or greater beneficial interest. N.J.S.A. 52:25-24.2—as amended P.L. 2016 c.43

The Voorhees Township Board of Education has provided within the specifications, a two (2) page form entitled:  
**STOCKHOLDER/PARTNERSHIP DISCLOSURE AND STATEMENT OF OWNERSHIP**

All bidders/respondents are to complete, sign and submit both pages for the form.

Failure to complete, sign and submit the Stockholders' Disclosure Form with the bid/proposal, shall be cause for the disqualification of the bid/proposal.

**50. SUBCONTRACTING: Subcontractor Disclosure Statement**

Pursuant to N.J.S.A. 18A:18A-18(b) any bidder who bids for the overall contract and who will subcontract the following work:

- Plumbing and gas fitting work;
- Refrigeration, heating and ventilating systems and equipment;
- Electrical work, tele-data, fire alarm or security systems; and
- Structural steel and ornamental iron work;

The bidder shall identify the subcontractor that will be used on the form provided by the school district

**Qualified Subcontractors**

If the cost of the work done by the subcontractors exceeds \$20,000.00, then said contractor shall be qualified in accordance with Article 6 N.J.S.A. 18A:18A-26 et seq. For those subcontractors in the four branches listed above, the bidder shall supply proof that the subcontractor is qualified by submitting with the bid the subcontractor's:

- Notice of Classification Form
- Total Amount of Uncompleted Contractor's Form—Certified (Form DPMC 701)

For all other subcontractors who will perform work valued in excess of \$20,000.00, the bidder shall submit the evidence of the subcontractor's qualifications listed above within ten (10) days of receipt of notice of the award of contract.

**Documents to be Submitted: All Subcontractors**

The prime contractor (bidders) who will be using a subcontractor on any part of this bid, shall identify the subcontractor(s) on the appropriate form and submit with the bid package the following subcontractor documents at the time indicated in the box below:

| <b><u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u></b> |   |   |
|--|---|---|
| Estimated Value of Contract<br>– Subcontractor   | For Subcontractors in the four major<br>branches listed above:<br><br><i><u>Submit With Bid</u></i>   | For all other Subcontractors:<br><br><i><u>Submit Within ten (10 Days of<br/>Receipt of Notice of Award</u></i> |
| \$2,000 through \$5,999                          | Contractor's Registration Certificate   |   |
| \$6,000 through \$17,499                         | Contractor's Registration Certificate<br>New Jersey Business Registration Certificate   |   |
| \$17,500 through \$19,999                        | Contractor's Registration Certificate<br>New Jersey Business Registration Certificate<br>Chapter 271 Political Contribution Disclosure Form   |   |
| \$20,000 or more                                 | Contractor's Registration Certificate<br>New Jersey Business Registration Certificate<br>Chapter 271 Political Contribution Disclosure Form<br>Notice of Classification<br>Total Amount of Uncompleted Contracts -- Certified |   |

Failure to identify in the Subcontractor's Disclosure Statement the names and addresses of any or all subcontractors required to be named in the bid, or to submit with the bid the appropriate documents for each such subcontractor, may be cause for the bid to be rejected as being non-responsive.

Contractors are reminded that the subcontractors listed on the forms provided by the school district may not be changed later, except in the case of failure in performance or other contract breach where a change is needed to protect the school district.

#### **51. SUBCONTRACTING: PROHIBITIONS: HOLD HARMLESS**

Prime contractors, with whom the Board of Education have an executed contract, may not subcontract any part of any work done for the Board without first receiving written approval from the Board. Contractors seeking to use subcontractors must first complete the Request to Subcontract Form as provided by the Building Services Department.

##### Subcontractors Prohibited to Subcontract

It is the responsibility of the prime contractor to ensure that no subcontractor who has received written permission to do work for the Board, subcontracts any of its/their work without first receiving written approval from the prime contractor **and** the Board or their designee.

The prime contractor assumes all responsibility for work performed by subcontractors. The prime contractor must also provide to the Board Business Office the following documents secured from all approved subcontractors:

- Insurance Certificate as outlined in the bid specifications;
- Affirmative Action Evidence as outlined in the bid specifications;
- Written certification that the subcontractor shall adhere to prevailing wages as provided through New Jersey State Law;
- Evidence of Performance Security;
- Documents listed in the Subcontractor Document Submissions list.

In cases of subcontracting, the Board of Education shall only pay the prime contractor. It is the sole responsibility of the prime contractor to ensure that all subcontractors are paid. The Board of Education shall not be responsible for payments to subcontractors and shall be held harmless against any or all claims generated against prime contractors for non-payment to subcontractors.

##### **Penalties – Unauthorized Subcontractors**

The Board of Education shall deduct the amount of \$1,000.00 (one thousand dollars) per day as a penalty, for each day a prime contractor uses a subcontractor without first receiving **written** permission from the Building Services Department.

#### **52. TAXES; Contractor's Use of Board's Tax Exempt Status**

As a New Jersey governmental entity, the Board of Education is exempt from the requirements under New Jersey state sales and use tax (N.J.S.A. 54:32B-1 et seq.) and does not pay any sales or use taxes. Bidders should note that they are expected to comply with the provisions of said statute and the rules and regulations promulgated thereto to qualify them for examinations and reference to any and all labor, services, materials and supplies furnished to the Board of Education. Contractors may not use the Board's tax identification number to purchase supplies, materials, service or equipment, for this project.

A contractor may qualify for a New Jersey Sales Tax Exemption on the purchase of materials, supplies and services when these purchases are used exclusively to fulfill the terms and conditions of the contract with the Board of Education. All contractors are referred to New Jersey Division of Taxation–Tax Bulletin S&U-3 for guidance. Again, contractors are not permitted to use the Board's tax identification number to purchase supplies, materials, services of equipment.

#### **53. TERMINATION OF CONTRACT**

If the Board determines that the contractor has failed to comply with the terms and conditions of the bid and/or proposal upon which the issuance of the contract is based or that the contractor has failed to perform said service, duties and or responsibilities in a timely, proper, professional and/or efficient manner, then the Board shall have

the authority to terminate the contract upon written notice setting forth the reason for termination and effective date of termination.

Termination by the Board of the contract does not absolve the contractor from potential liability for damages caused the District by the contractor's breach of this agreement. The Board may withhold payment due the contractor and apply same towards damages once established. The Board will act diligently in accordance with governing statutes to mitigate damages. Damages may include the additional cost of procuring said services or goods from other sources.

The contractor further agrees to indemnify and hold the District harmless from any liability to subcontractors or suppliers concerning work performed or goods provided arising out of the lawful termination of this agreement.

#### **54. WITHDRAWAL OF BIDS**

##### *Before The Bid Opening*

The School Business Administrator/Board Secretary may consider a written request from a bidder to withdraw a bid if the written request is received by the School Business Administrator/Board Secretary before the advertised time of the bid opening. Any bidder who has been granted permission by the School Business Administrator/Board Secretary to have his/her bid withdrawn cannot re-submit a bid for the same advertised bid project. That bidder shall also be disqualified from future bidding on the same project if the project is re-bid.

##### *After The Bid Opening*

The Board of Education may consider a written request from a bidder to withdraw a bid, if the written request is received by the School Business Administrator/Board Secretary within five (5) business days after the bid opening. A request to withdraw a bid after the specified number of days will not be honored.

The contractor/vendor who wishes to withdraw a bid must provide a certification supported by written factual evidence that an error or omission was made by the contractor and that the error or omission was a substantial computational error or an unintentional omission or both.

The request to withdraw a bid after the bid opening may be reviewed by the School Business Administrator/Board Secretary, the Director of Facilities, other interested administrators; and the Architect/Engineer of Record for the project (if necessary) and/or the Board Attorney and a recommendation will be made to the Board of Education. If the Board of Education grants permission to have the bid withdrawn the contractor/vendor shall be disqualified from bidding on the same project if the project is re-bid. If the contractor/vendor fails to meet the burden of proof to have the bid withdrawn the request to withdraw the bid will be denied and if the contractor/vendor fails to execute the contract the bid guarantee will be forfeited and become property of the Board of Education.

#### **55. AWARD OF CONTRACT**

The Board of Education intends to award the contract for the project:  
Media Center Alterations at Hamilton Elementary School

#### **56. EXPERIENCE**

The Board of Education requires evidence from all bidders that they have completed work or projects of a similar nature as outlined in the bid package. Bidders are to provide evidence of satisfactory completion of work of similar nature as outlined in the bid from Three (3) Boards of Education in New Jersey within the past Ten (10) years.

#### **57. NUMBER OF WORKING DAYS -- (N.J.S.A. 18A:18A-19)**

The contractor agrees to substantially complete this public works project to the satisfaction of the Board of Education by **October 2, 2020**. The district has defined a working day as a calendar day.

The number of working days set by the district may be extended by mutual agreement between the contractor and the district. The mutual agreement shall be in writing and will be considered an addendum to the contract.

**58. PRE-BID MEETING**

A pre-bid meeting via Google Meet for this project is scheduled for

Thursday, June 25, 2020  
10:00 a.m.  
Voorhees Township Board of Education

The purpose of this meeting is to review the legal and technical requirements of the bid proposal. While attendance is not mandatory, prospective bidders are strongly encouraged to attend this important meeting. Addenda to this bid proposal may be issued as a result of the pre-bid meeting. Failure to attend the meeting will not excuse any bid mistake and/or omission due to bidder’s ignorance of information disseminated at the meeting.

**59. TRADE CLASSIFICATION(S) (Optional)**

**A. Bidder:**

For the purpose of this Public Works bid, each bidder shall be classified by the State of New Jersey—Division of Property Management and Construction in the following trade(s):

Classification Code  
C008 or C009

Classification Trade Name  
General Construction or General Construction  
Additions and Alterations

Proof of classification shall be submitted with the bid package in the form of a current Notice of Classification as issued by the New Jersey Division of Property Management and Construction.

**B. Subcontractor:**

Proof of classification, in the form of a current Notice of Classification form, for each sub-Contractor, shall be submitted by the bidder with the bid package for any estimated subcontractor work exceeding \$20,000.00.

**VOORHEES TOWNSHIP BOARD OF EDUCATION**

**BID DOCUMENTS  
AND  
REQUIRED  
DOCUMENTATION**

All documents in this section shall be completed, signed and submitted with the bid package – Failure to submit the bid documents and other documents so specified may be cause to reject the bid for being non-responsive (N.J.S.A. 18A:18A-2(y)).

**HELEN G. HALEY, CPA**

*Business Administrator/Board Secretary*

# **BID PROPOSAL FORM**

## **CONTRACT 5:**

Base Bid in the sum of \_\_\_\_\_ Dollars (\$) \_\_\_\_\_ which includes the Allowance No. 1 listed below.

### **ALLOWANCES (included in the Base Bid value above):**

Allowance No. 1: Seven Thousand Five Hundred dollars (\$7,500.00) included in the Base Bid amount above for unforeseen conditions encountered during the work.

Bidder's Authorized Representative:

Name: \_\_\_\_\_  
*(Printed/Typed)*

Title: \_\_\_\_\_  
*(Printed/Typed)*

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

Date: \_\_\_\_\_

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



# **ACKNOWLEDGEMENT OF ADDENDA AND CLARIFICATIONS**

## **Title of Bid**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. **5**

Bid Date **July 9, 2020**

The bidder acknowledges receipt of the hereinafter enumerated Addenda which have been issued during period of bidding and agrees that said Addenda shall become a part of this contract. The bidder shall list below the numbers and issuing dates of the Addenda.

ADDENDA NO.

ISSUING DATES

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

CLARIFICATION NO.

ISSUING DATES

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**No Addenda Received**

**No Clarifications Received**

Name of Company \_\_\_\_\_

Address \_\_\_\_\_ P.O. Box \_\_\_\_\_

City, State, Zip Code \_\_\_\_\_

Name of Authorized Representative \_\_\_\_\_

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

**BIDDER’S COMMENT FORM**

**Title of Bid**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. 5

Bid Date July 9, 2020

This form is for Bidder’s use in offering voluntary alternates, or other comments intended to afford the Board information or opportunities to improve the quality of the project, without invalidating the bid proposal. It may *not* be used to take exception to specific conditions of the project defined in the contract documents which the Bidder does not like. The bid provided must be based upon the plans and specs, and all contract conditions, as stated. If these documents or conditions contain some untenable item, or extremely expensive provision, for example, to which the Bidder wishes to raise objection, this must be done at the pre-bid meeting, or in writing to the Architect through the question process outlined in the Instructions to Bidders. Such inquiries will have response issued by addendum only, and the resulting decision circulated to all bidders of record. Inquires raised too close to the bid date will not be able to be answered.

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Name of Company \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Name of Authorized Representative \_\_\_\_\_

**Signature** \_\_\_\_\_ **Title** \_\_\_\_\_ **Date** \_\_\_\_\_

**Voorhees Township Board of Education**

**Chapter 271  
Political Contribution Disclosure Form  
(Contracts that Exceed \$17,500.00)  
Ref. N.J.S.A. 19:44-20.26**

The undersigned, being authorized and knowledgeable of the circumstances, does hereby certify that \_\_\_\_\_ **(Business Entity)** has made the following **reportable** political contributions to any elected official, political candidate or any political committee as defined in N.J.S.A. 19:44-20.26 during the twelve (12) months preceding this award of contract:

**Reportable Contributions**

| <b><u>Date of Contribution</u></b> | <b><u>Amount of Contribution</u></b> | <b><u>Name of Recipient Elected Official/ Committee/Candidate</u></b> | <b><u>Name of Contributor</u></b> |
|------------------------------------|--------------------------------------|---|-----------------------------------|
|                                    |                                      |   |                                   |
|                                    |                                      |   |                                   |
|                                    |                                      |   |                                   |
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|                                    |                                      |   |                                   |
|                                    |                                      |   |                                   |
|                                    |                                      |   |                                   |

The Business Entity may attach additional pages if needed.

**No Reportable Contributions** (Please check (  ) if applicable.)

I certify that \_\_\_\_\_ **(Business Entity)** made no reportable contributions to any elected official, political candidate or any political committee as defined in N.J.S.A. 19:44-20.26.

**Certification**

I certify that the information provided above is in full compliance with Public Law 2005—Chapter 271.

Name of Authorized Agent \_\_\_\_\_

**Signature** \_\_\_\_\_ **Title** \_\_\_\_\_

Business Entity \_\_\_\_\_

**Title of Bid: Media Center Alterations at Hamilton Elementary School**

**Contract No: 5**

## C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM

### Contractor Instructions

Business entities (contractors) receiving contracts from a public agency that are NOT awarded pursuant to a “fair and open” process (defined at N.J.S.A. 19:44A-20.7) are subject to the provisions of P.L. 2005, c. 271, s.2 (N.J.S.A. 19:44A-20.26). This law provides that 10 days prior to the award of such a contract, the contractor shall disclose contributions to:

- any State, county, or municipal committee of a political party
- any legislative leadership committee\*
- any continuing political committee (a.k.a., political action committee)
- any candidate committee of a candidate for, or holder of, an elective office:
  - of the public entity awarding the contract
  - of that county in which that public entity is located
  - of another public entity within that county
  - or of a legislative district in which that public entity is located or, when the public entity is a county, of any legislative district which includes all or part of the county

The disclosure must list reportable contributions to any of the committees that exceed \$300 per election cycle that were made during the 12 months prior to award of the contract. See N.J.S.A. 19:44A-8 and 19:44A-16 for more details on reportable contributions.

N.J.S.A. 19:44A-20.26 itemizes the parties from whom contributions must be disclosed when a business entity is not a natural person. This includes the following:

- individuals with an “interest” ownership or control of more than 10% of the profits or assets of a business entity or 10% of the stock in the case of a business entity that is a corporation for profit
- all principals, partners, officers, or directors of the business entity or their spouses
- any subsidiaries directly or indirectly controlled by the business entity
- IRS Code Section 527 New Jersey based organizations, directly or indirectly controlled by the business entity and filing as continuing political committees, (PACs).

When the business entity is a natural person, “a contribution by that person’s spouse or child, residing therewith, shall be deemed to be a contribution by the business entity.” [N.J.S.A. 19:44A-20.26(b)] The contributor must be listed on the disclosure.

Any business entity that fails to comply with the disclosure provisions shall be subject to a fine imposed by ELEC in an amount to be determined by the Commission which may be based upon the amount that the business entity failed to report.

The enclosed list of agencies is provided to assist the contractor in identifying those public agencies whose elected official and/or candidate campaign committees are affected by the disclosure requirement. It is the contractor’s responsibility to identify the specific committees to which contributions may have been made and need to be disclosed. The disclosed information may exceed the minimum requirement.

The enclosed form, a content-consistent facsimile, or an electronic data file containing the required details (along with a signed cover sheet) may be used as the contractor’s submission and is disclosable to the public under the Open Public Records Act.

The contractor must also complete the attached Stockholder Disclosure Certification. This will assist the agency in meeting its obligations under the law. **NOTE: This section does not apply to Board of Education contracts.**

N.J.S.A. 19:44A-3(s): “The term “legislative leadership committee” means a committee established, authorized to be established, or designated by the President of the Senate, the Minority Leader of the Senate, the Speaker of the General Assembly or the Minority Leader of the General Assembly pursuant to section 16 of P.L.1993, c.65 (C.19:44A-10.1) for the purpose of receiving contributions and making expenditures.”

**P.L. 2005, c.271**

(Unofficial version, Assembly Committee Substitute to A-3013, First Reprint\*)

AN ACT authorizing units of local government to impose limits on political contributions by contractors and supplementing Title 40A of the New Jersey Statutes and Title 19 of the Revised Statutes.

**BE IT ENACTED** by the Senate and General Assembly of the State of New Jersey:

**40A:11-51** 1. a. A county, municipality, independent authority, board of education, or fire district is hereby authorized to establish by ordinance, resolution or regulation, as may be appropriate, measures limiting the awarding of public contracts therefrom to business entities that have made a contribution pursuant to P.L.1973, c.83 (C.19:44A-1 et seq.) and limiting the contributions that the holders of a contract can make during the term of a contract, notwithstanding the provisions and parameters of sections 1 through 12 of P.L.2004, c.19 (C. 19:44A-20.2 et al.) and section 22 of P.L.1973, c.83 (C.19:44A-22).

b. The provisions of P.L.2004, c.19 shall not be construed to supersede or preempt any ordinance, resolution or regulation of a unit of local government that limits political contributions by business entities performing or seeking to perform government contracts. Any ordinance, resolution or regulation in effect on the effective date of P.L.2004, c.19 shall remain in effect and those adopted after that effective date shall be valid and enforceable.

c. An ordinance, resolution or regulation adopted or promulgated as provided in this section shall be filed with the Secretary of State.

**19:44A-20.26** 2. a. Not later than 10 days prior to entering into any contract having an anticipated value in excess of \$17,500, except for a contract that is required by law to be publicly advertised for bids, a State agency, county, municipality, independent authority, board of education, or fire district shall require any business entity bidding thereon or negotiating therefor, to submit along with its bid or price quote, a list of political contributions as set forth in this subsection that are reportable by the recipient pursuant to the provisions of P.L.1973, c.83 (C.19:44A-1 et seq.) and that were made by the business entity during the preceding 12 month period, along with the date and amount of each contribution and the name of the recipient of each contribution. A business entity contracting with a State agency shall disclose contributions to any State, county, or municipal committee of a political party, legislative leadership committee, candidate committee of a candidate for, or holder of, a State elective office, or any continuing political committee. A business entity contracting with a county, municipality, independent authority, other than an independent authority that is a State agency, board of education, or fire district shall disclose contributions to: any State, county, or municipal committee of a political party; any legislative leadership committee; or any candidate committee of a candidate for, or holder of, an elective office of that public entity, of that county in which that public entity is located, of another public entity within that county, or of a legislative district in which that public entity is located or, when the public entity is a county, of any legislative district which includes all or part of the county, or any continuing political committee.

The provisions of this section shall not apply to a contract when a public emergency requires the immediate delivery of goods or services.

b. When a business entity is a natural person, a contribution by that person's spouse or child, residing therewith, shall be deemed to be a contribution by the business entity. When a business entity is other than a natural person, a contribution by any person or other business entity having an interest therein shall be deemed to be a contribution by the business entity. When a business entity is other than a natural person, a contribution by: all principals, partners, officers, or directors of the business entity or their spouses; any subsidiaries directly or indirectly controlled by the business entity; or any political organization organized under section 527 of the Internal Revenue Code that is directly or indirectly controlled by the business entity, other than a candidate committee, election fund, or political party committee, shall be deemed to be a contribution by the business entity.

c. As used in this section:

"business entity" means a natural or legal person, business corporation, professional services corporation, limited liability company, partnership, limited partnership, business trust, association or any other legal commercial entity organized under the laws of this State or of any other state or foreign jurisdiction;

"interest" means the ownership or control of more than 10% of the profits or assets of a business entity or 10% of the stock in the case of a business entity that is a corporation for profit, as appropriate; and

"State agency" means any of the principal departments in the Executive Branch of the State Government, and any division, board, bureau, office, commission or other instrumentality within or created by such department, the Legislature of the State and any office, board, bureau or commission within or created by the Legislative Branch, and any independent State authority, commission, instrumentality or agency.

d. Any business entity that fails to comply with the provisions of this section shall be subject to a fine imposed by the New Jersey Election Law Enforcement Commission in an amount to be determined by the commission which may be based upon the amount that the business entity failed to report.

**19:44A-20.13** 3. a. Any business entity making a contribution of money or any other thing of value, including an in-kind contribution, or pledge to make a contribution of any kind to a candidate for or the holder of any public office having ultimate responsibility for the awarding of public contracts, or to a political party committee, legislative leadership committee, political committee or continuing political committee, which has received in any calendar year \$50,000 or more in the aggregate through agreements or contracts with a public entity, shall file an annual disclosure statement with the New Jersey Election Law Enforcement Commission, established pursuant to section 5 of P.L.1973, c.83 (C.19:44A-5), setting forth all such contributions made by the business entity during the 12 months prior to the reporting deadline.

b. The commission shall prescribe forms and procedures for the reporting required in subsection a. of this section which shall include, but not be limited to:

(1) the name and mailing address of the business entity making the contribution, and the amount contributed during the 12 months prior to the reporting deadline;

(2) the name of the candidate for or the holder of any public office having ultimate responsibility for the awarding of public contracts, candidate committee, joint candidates committee, political party committee, legislative leadership committee, political committee or continuing political committee receiving the contribution; and

(3) the amount of money the business entity received from the public entity through contract or agreement, the dates, and information identifying each contract or agreement and describing the goods, services or equipment provided or property sold.

c. The commission shall maintain a list of such reports for public inspection both at its office and through its Internet site.

d. When a business entity is a natural person, a contribution by that person's spouse or child, residing therewith, shall be deemed to be a contribution by the business entity. When a business entity is other than a natural person, a contribution by any person or other business entity having an interest therein shall be deemed to be a contribution by the business entity. When a business entity is other than a natural person, a contribution by: all principals, partners, officers, or directors of the business entity, or their spouses; any subsidiaries directly or indirectly controlled by the business entity; or any political organization organized under section 527 of the Internal Revenue Code that is directly or indirectly controlled by the business entity, other than a candidate committee, election fund, or political party committee, shall be deemed to be a contribution by the business entity.

As used in this section:

"business entity" means a natural or legal person, business corporation, professional services corporation, limited liability company, partnership, limited partnership, business trust, association or any other legal commercial entity organized under the laws of this State or of any other state or foreign jurisdiction; and

"interest" means the ownership or control of more than 10% of the profits or assets of a business entity or 10% of the stock in the case of a business entity that is a corporation for profit, as appropriate.

e. Any business entity that fails to comply with the provisions of this section shall be subject to a fine imposed by the New Jersey Election Law Enforcement Commission in an amount to be determined by the commission which may be based upon the amount that the business entity failed to report.

4. This act shall take effect immediately.

\* Note: Bold italicized statutory references of new sections are anticipated and not final as of the time this document was prepared. Statutory compilations of N.J.S.A. 18A:18A-51 is anticipated to show a reference to N.J.S.A. 40A:11-51 and to N.J.S.A.19:44A-20.26.

**List of Agencies with Elected Officials Required for Political Contribution Disclosure  
N.J.S.A. 19:44-20.26**

**County Name: Camden**

State: Governor, and Legislative Leadership Committees

Legislative District #s: 4, 5, 6, & 7

State Senator and two members of the General Assembly per district.

**County:**

Freeholders      County Clerk                      Sheriff                      Surrogate

**Municipalities (Mayor and members of governing body, regardless of title):**

|                      |                        |                     |
|----------------------|------------------------|---------------------|
| Audubon Borough      | Gloucester City        | Pennsauken Township |
| Audubon Park Borough | Gloucester Township    | Pine Hill Borough   |
| Barrington Borough   | Haddon Heights Borough | Pine Valley Borough |
| Bellmawr Borough     | Haddon Township        | Runnemede Borough   |
| Berlin Borough       | Haddonfield Borough    | Somerdale Borough   |
| Berlin Township      | Hi-nella Borough       | Stratford Borough   |
| Brooklawn Borough    | Laurel Springs Borough | Tavistock Borough   |
| Camden City          | Lawnside Borough       | Voorhees Township   |
| Cherry Hill Township | Lindenwold Borough     | Waterford Township  |
| Chesilhurst Borough  | Magnolia Borough       | Winslow Township    |
| Clementon Borough    | Merchantville Borough  | Woodlynne Borough   |
| Collingswood Borough | Mount Ephraim Borough  |                     |
| Gibbsboro Borough    | Oaklyn Borough         |                     |

**Boards of Education (Members of the Board):**

|                           |                        |                               |
|---------------------------|------------------------|-------------------------------|
| Audubon Borough           | Regional               | Oaklyn Borough                |
| Audubon Park Borough      | Gibbsboro Borough      | Pennsauken Township           |
| Barrington Borough        | Gloucester City        | Pine Hill Borough             |
| Bellmawr Borough          | Gloucester Township    | Pine Valley                   |
| Berlin Borough            | Haddon Heights Borough | Runnemede Borough             |
| Berlin Township           | Haddon Township        | Somerdale Borough             |
| Black Horse Pike Regional | Haddonfield Borough    | Sterling High School District |
| Brooklawn Borough         | Hi Nella               | Stratford Borough             |
| Camden City               | Laurel Springs Borough | Tavistock                     |
| Cherry Hill Township      | Lawnside Borough       | Voorhees Township             |
| Chesilhurst               | Lindenwold Borough     | Waterford Township            |
| Clementon Borough         | Magnolia Borough       | Winslow Township              |
| Collingswood Borough      | Merchantville Borough  | Woodlynne Borough             |
| Eastern Camden County     | Mount Ephraim Borough  |                               |

**Fire Districts (Board of Fire Commissioners):**

|   |   |                                       |
|---|---|---------------------------------------|
| Berlin Township Fire District No. 1     | Gloucester Township Fire District No. 6 | Voorhees Township Fire District No. 3 |
| Cherry Hill Fire District No. 13        | Haddon Township Fire District No. 1     | Winslow Township Fire District No. 1  |
| Gloucester Township Fire District No. 1 | Haddon Township Fire District No. 2     |                                       |
| Gloucester Township Fire District No. 2 | Haddon Township Fire District No. 3     |                                       |
| Gloucester Township Fire District No. 3 | Haddon Township Fire District No. 4     |                                       |
| Gloucester Township Fire District No. 4 | Lindenwold Borough Fire District No. 1  |                                       |
| Gloucester Township Fire District No. 5 | Pine Hill Borough Fire District No. 1   |                                       |

Voorhees Township Board of Education

**CONTRACTOR QUESTIONNAIRE/CERTIFICATION**

Title of Bid

Media Center Alterations at Hamilton Elementary School

Cont. No. 5

Bid Date July 9, 2020

Name of Company \_\_\_\_\_

Street Address \_\_\_\_\_ P.O. Box \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Business Phone Number ( ) \_\_\_\_\_ Extension \_\_\_\_\_

Emergency Phone Number ( ) \_\_\_\_\_

FAX NO. ( ) \_\_\_\_\_ E-Mail \_\_\_\_\_

FEIN No. \_\_\_\_\_

**Questionnaire**

1. How many years have you been engaged in the contracting business under your present firm or trading name?  
\_\_\_\_\_ Years

2. Have you ever failed to complete any work awarded to your company?

Yes  No

If yes, explain \_\_\_\_\_

3. Have you ever defaulted on a contract?

Yes  No

If yes, explain \_\_\_\_\_

4. Have you or other principals of your company been debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from participation in any public works projects by any federal, state, or local agencies, including any **“prior negative experience”** disqualification pursuant to N.J.S.A. 18A:18A-4 (b) (c)?

Yes  No

*(Form continued on next page)*



Title of Bid

**Media Center Alterations at Hamilton Elementary School**

Cont. No. 5

Bid Date July 9, 2020

\_\_\_\_\_  
Name of Company

If yes, explain \_\_\_\_\_  
\_\_\_\_\_

**Experience – Educational Facilities:**

The Board of Education requires evidence from all bidders that they have completed work or projects of a similar nature as outlined in the bid package. Bidders are to provide evidence of satisfactory completion of work of similar nature as outlined in the bid from up to Three (3) public school districts in New Jersey within the past Ten (10) years. Bidders are to complete the section on experience and provide supporting documentation with the bid package.

A. Title of Work/Project: \_\_\_\_\_

Name of School District: \_\_\_\_\_

Name of School Official: \_\_\_\_\_ Title \_\_\_\_\_

Phone Number \_\_\_\_\_ E-Mail \_\_\_\_\_

Date(s) of Project: \_\_\_\_\_

B. Title of Work/Project: \_\_\_\_\_

Name of School District: \_\_\_\_\_

Name of School Official: \_\_\_\_\_ Title \_\_\_\_\_

Phone Number \_\_\_\_\_ E-Mail \_\_\_\_\_

Date(s) of Project: \_\_\_\_\_

C. Title of Work/Project: \_\_\_\_\_

Name of School District: \_\_\_\_\_

Name of School Official: \_\_\_\_\_ Title \_\_\_\_\_

Phone Number \_\_\_\_\_ E-Mail \_\_\_\_\_

Date(s) of Project: \_\_\_\_\_

*(Form continued on next page)*

**Title of Bid**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. **5**

Bid Date **July 9, 2020**

---

Name of Company

**References**

**Architects**--List names of architects that you have worked with on projects within the last five (5) years.

| <u>Firm</u> | <u>Principal</u> | <u>Phone Number</u> |
|-------------|------------------|---------------------|
| 1. _____    | _____            | _____               |
| 2. _____    | _____            | _____               |
| 3. _____    | _____            | _____               |

**Bank**--List name of principal bank with which your company does business.

| <u>Bank</u> | <u>Officer</u> | <u>Phone Number</u> |
|-------------|----------------|---------------------|
| _____       | _____          | _____               |

**Trade**--List names of companies within your trade with which your company does business:

| <u>Firm</u> | <u>Principal</u> | <u>Phone Number</u> |
|-------------|------------------|---------------------|
| 1. _____    | _____            | _____               |
| 2. _____    | _____            | _____               |
| 3. _____    | _____            | _____               |

*(Form continued on next page)*

Title of Bid

**Media Center Alterations at Hamilton Elementary School**

Cont. No. 5

Bid Date July 9, 2020

---

Name of Company

**Certifications**

• **Debarment**

I certify that the entity listed on the form or any person employed by this entity, are not presently on the following:

- New Jersey Department of Treasury – Consolidated Debarment Report
- New Jersey Department of Labor – Prevailing Wage Debarment List
- Federal Debarred Vendor List—System for Award Management (SAM.gov)

• **Direct/Indirect Interests**

I declare and certify that no member of the Voorhees Township Board of Education, nor any officer or employee or person whose salary is payable in whole or in part by said Board of Education or their immediate family members are directly or indirectly interested in this bid or in the supplies, materials, equipment, work or services to which it relates, or in any portion of profits thereof. If a situation so exists where a Board member, employee, officer of the board has an interest in the bid, etc., then please attach a letter of explanation to this document, duly signed by the president of the firm or company.

• **Gifts; Gratuities; Compensation**

I declare and certify that no person from my firm, business, corporation, association or partnership offered or paid any fee, commission or compensation, or offered any gift, gratuity or other thing of value to any school official, board member or employee of the Board of Education.

• **Vendor Contributions**

I declare and certify that I fully understand N.J.A.C. 6A:23A-6.3 (a) (1-4) concerning vendor contributions to school board members.

• **False Material Representation**

I further certify that I understand that it is a crime in the second degree in New Jersey to knowingly make a material representation that is false in connection with the negotiation, award or performance of a government contract.

---

President or Authorized Agent

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**Signature**

**CONTRACTOR REGISTRATION CERTIFICATION**

**Title of Bid**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. **5**

Bid Date **July 9, 2020**

It is the determination of the Board of Education that this is a public works project that in total will exceed \$2,000.00 (two thousand dollars), therefore pursuant to the Public Works Contractor Registration Act -- N.J.S.A. 34:11-56.48 et seq., no contractor shall bid on any project for public works unless the contractor is registered pursuant to the act.

I certify that our company understands that the project of the Board of Education requires that all contractors and subcontractors listed in this proposal possess a valid Contractor Registration Certificate at the time the proposal is received by the Board and furthermore certify that I will provide copies of the valid certificate prior to the award of contract.

Name of Company \_\_\_\_\_

Authorized Agent \_\_\_\_\_

*Authorized Signature* \_\_\_\_\_

**EQUIPMENT CERTIFICATION**

**Title of Bid**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. **5**

Bid Date **July 9, 2020**

In accordance with N.J.S.A. 18A:18A-23, I hereby certify that

A) \_\_\_\_\_ (*Name of Company*) owns all the necessary equipment as required by the specifications and to complete the specified public work project.

**or**

B) \_\_\_\_\_ (*Name of Company*) leases or controls all the necessary equipment as required by the specifications and to complete the specified public work project.

**PLEASE NOTE:** If your company is not the actual owner of the equipment, **you shall submit with the bid**

1. A certificate stating the source from which the equipment will be obtained and
2. Obtain and submit with the bid a certificate from the owner and person in control of the equipment, definitely granting to the bidder the control of the equipment required during such time it may be necessary for the completion of that portion of the contract for which said equipment will be necessary.

Name of Company \_\_\_\_\_

Authorized Agent \_\_\_\_\_

**Authorized Signature** \_\_\_\_\_

**STATE OF NEW JERSEY -- DIVISION OF PURCHASE AND PROPERTY  
DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN**

Quote Number:

Bidder/Offeror:

**PART 1: CERTIFICATION**

**BIDDERS MUST COMPLETE PART 1 BY CHECKING EITHER BOX.**

**FAILURE TO CHECK ONE OF THE BOXES WILL RENDER THE PROPOSAL NON-RESPONSIVE.**

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division's website at <http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf>. Bidders must review this list prior to completing the below certification. **Failure to complete the certification will render a bidder's proposal non-responsive.** If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party

**PLEASE CHECK THE APPROPRIATE BOX:**

I certify, pursuant to Public Law 2012, c. 25, that neither the bidder listed above nor any of the bidder's parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. **I will skip Part 2 and sign and complete the Certification below.**

**OR**

I am unable to certify as above because the bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department's Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

**PART 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN**

You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes below.

**EACH BOX WILL PROMPT YOU TO PROVIDE INFORMATION RELATIVE TO THE ABOVE QUESTIONS. PLEASE PROVIDE THOROUGH ANSWERS TO EACH QUESTION. IF YOU NEED TO MAKE ADDITIONAL ENTRIES, CLICK THE "ADD AN ADDITIONAL ACTIVITIES ENTRY" BUTTON.**

|                             |                      |                                |                      |
|-----------------------------|----------------------|--------------------------------|----------------------|
| Name                        | <input type="text"/> | Relationship to Bidder/Offeror | <input type="text"/> |
| Description of Activities   | <input type="text"/> |                                |                      |
| Duration of Engagement      | <input type="text"/> | Anticipated Cessation Date     | <input type="text"/> |
| Bidder/Offeror Contact Name | <input type="text"/> | Contact Phone Number           | <input type="text"/> |

**ADD AN ADDITIONAL ACTIVITIES ENTRY**

Certification: I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder; that the State of New Jersey is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the State, permitting the State to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):

Signature:

**Do Not Enter PIN as a Signature**

Title:

Date:

**AFFIRMATIVE ACTION QUESTIONNAIRE**

**Title of Bid**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. 5

Bid Date **July 9, 2020**

This form is to be completed and returned with the proposal. However, the Board will accept in lieu of this Questionnaire, a current Affirmative Action Evidence - Certificate of Employee Information Report.

1. Our company has a federal Affirmative Action Plan approval  Yes  No

*If yes, please attach a copy of the plan to this questionnaire.*

2. Our company has a N.J. State Certificate of Employee Information Report  Yes  No

*If yes, please attach a copy of the certificate to this questionnaire.*

3. If you answered “NO” to both questions No. 1 and 2, you must apply for an Affirmative Action Employee Information Report – Form AA302.

Please visit the New Jersey Department of Treasury website for the Division of Public Contracts Equal Employment Opportunity Compliance: [www.state.nj.us/treasury/contract/compliance](http://www.state.nj.us/treasury/contract/compliance)

- Click on “Employee Information Report”
- Complete and submit the form with the appropriate payment to:

Department of Treasury  
Division of Public Contracts/EEO Compliance  
P.O. Box 209  
Trenton, NJ 08625-0002

All fees for this application are to be paid directly to the State of New Jersey. A copy shall be submitted to the Board of Educations within seven (7) days of the notice of the intent to award the contract or the signing of the contract.

I certify that the above information is correct to the best of my knowledge.

Name: \_\_\_\_\_

Signature \_\_\_\_\_

Title \_\_\_\_\_ Date \_\_\_\_\_

Name of Company \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

**NON-COLLUSION AFFIDAVIT**

**Title of Bid**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. 5

Bid Date **July 9, 2020**

Re: Bid Proposal for the Voorhees Township Board of Education.

STATE OF \_\_\_\_\_

:ss:

COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_ of the City of \_\_\_\_\_

in the County of \_\_\_\_\_ and the State of \_\_\_\_\_

of full age, being duly sworn according to law on my oath depose and say that:

I am \_\_\_\_\_ (Position in Company)

of the firm of \_\_\_\_\_ and the bidder making the Proposal for the above names contract, and that I executed the said Proposal with full authority so to do; that I have not, directly or indirectly, entered into any agreement, participated in any collusion, discussed any or all parts of this proposal with any potential bidder, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named bid, and that all statements contained in said Proposal and in this affidavit are true and correct, and made with full knowledge that the Board of Education relies upon the truth of the statements contained in said Proposal and in the statements contained in this affidavit in awarding the contract for the said bid.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees of bona fide established commercial or selling agencies maintained by

\_\_\_\_\_  
(Print Name of Contractor)

Subscribed and sworn to: \_\_\_\_\_  
(SIGNATURE OF CONTRACTOR)

before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.  
Month Year

\_\_\_\_\_  
NOTARY PUBLIC SIGNATURE

\_\_\_\_\_  
Print Name of Notary Public

My commission expires \_\_\_\_\_ - Seal -  
Month Day Year



**PRE-QUALIFICATION AFFIDAVIT**

**Title of Bid**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. **5**

Bid Date **July 9, 2020**

The below affidavit must be submitted with your bid for projects over \$20,000.00 pursuant to N.J.S.A. 18A:18A-32:

I, \_\_\_\_\_ of the City of \_\_\_\_\_  
in the County of \_\_\_\_\_ and the State of \_\_\_\_\_  
of full age, being duly sworn according to law on my oath depose and say that:

**No Material Adverse Change in Qualification—N.J.S.A. 18A:18A-32**

I am \_\_\_\_\_ (*Position in Company*), and the bidder for the above named project and the answers to the following statements are true and correct and that there has been no material adverse change in the qualification information subsequent to the latest statement submitted as required (N.J.S.A. 18A:18A-32 et seq.) as amended, except as set forth herewith:

**Notice of Classification**

\_\_\_\_\_ (*Name of Company*) is classified by the State of New Jersey under Chapter 105, Laws of 1962, as amended. This Classification became effective \_\_\_\_\_ (*Date*)

Type of Contract/Trade Classified: \_\_\_\_\_

Classification Approved Amount \$ \_\_\_\_\_

A copy of my valid and active prequalification/classification certificate from the Department of Treasury, Division of Property Management and Construction is attached.

**Total Amount of Uncompleted Contracts**

The total amount of uncompleted work on contracts is \$ \_\_\_\_\_

A copy of the company’s Total Amount of Uncompleted Contracts form is required to be submitted with the bid.

\_\_\_\_\_  
**Signature of Authorized Representative** **Date**

Sworn and subscribed to before me this \_\_\_\_\_ day of \_\_\_\_\_ in the Year \_\_\_\_\_.

\_\_\_\_\_  
**Signature of Notary** Notary Public of \_\_\_\_\_  
**Print Name of Notary**

My Commission Expires: \_\_\_\_\_  
Month Day Year

**-SEAL-**

This affidavit does not take the place of the “Notice of Classification” or the “Total Amount of Uncompleted Contracts” issued by the State of New Jersey, both of which must be submitted with the bid package of each bidder.

**PREVAILING WAGES CERTIFICATION**

**Title of Bid**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. **5**

Bid Date **July 9, 2020**

It is the determination of the Board of Education that this is a public works project that in total will exceed \$2,000.00 (two thousand dollars), therefore prevailing wages rules and regulations apply as promulgated by the New Jersey Prevailing Wage Act and in conformance with N.J.S.A. 34:11-56:25.

**CERTIFICATION**

1. I certify that our company understands that this project of the Board of Education requires prevailing wages to be paid in full accordance with the law.
2. I further certify that all subcontractors named in this bid understand that this project requires the subcontractor to pay prevailing wages in full accordance with the law.

**NOTIFICATION OF VIOLATIONS – New Jersey Department of Labor**

Has the bidder or any person having an “interest” with the bidder, been notified by the New Jersey Department of Labor by notice issued pursuant to N.J.S.A. 34:11-56:37 that he/she has been in violation for failure to pay prevailing wages as required by the New Jersey Prevailing Wage Act within the last five (5) years?

\* Yes \_\_\_\_\_ No \_\_\_\_\_

\*If yes, please attach a signed document explaining any/or all administrative proceedings with the NJDOL within the last five (5) years.

Please include any pending administrative proceedings with the NJ Department of Labor, if any.

**Submission of Certified Payroll Records**

All certified payroll records are to be submitted to the person named below who is coordinating the activities for the project:

\_\_\_\_\_  
Michelle Mortelliti, Accounts Payable  
Voorhees Township Board of Education

Name of Company \_\_\_\_\_

Authorized Agent \_\_\_\_\_

***Authorized Signature*** \_\_\_\_\_

**STOCKHOLDER/PARTNERSHIP DISCLOSURE AND STATEMENT OF OWNERSHIP**

**Media Center Alterations at Hamilton Elementary School**

No corporation, partnership or limited liability company, shall be awarded any contract nor shall any agreement be entered into for the performance of any work or the furnishing of any material or supplies, the cost of which is to be paid with or out of any public funds, by the State or any county, municipality or school district, or any subsidiary or agency of the State, or by an authority, board or commission which exercises governmental functions, unless prior to the receipt of the bid or accompanying the bid of said corporation, said partnership, said limited liability company, there is submitted a statement setting forth the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock of any class, or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. If one or more such stockholder, partner or member is itself a corporation or partnership or limited liability company, the stockholder holding 10 percent or more of that corporation's stock or the individual partners owning 10 percent or greater interest in that partnership, or the members owning 10 percent or greater interest in that limited liability company as the case may be, shall also be listed. The disclosure shall be, continued until names and addresses of every non-corporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established in this act, has been listed.

Please check one type of Ownership, complete the form, and execute where provided.

- Corporation--
- Partnership--
- Sole Proprietorship--
- Sub Chapter S Corp.--
- Limited Partnership--
- Limited Liability Company--
- Limited Liability Partnership--
- Other- \_\_\_\_\_

**IT IS MANDATORY THAT THIS FORM BE COMPLETED AND SUBMITTED WITH BID/PROPOSAL.** In the event that there are no persons who own ten percent or more of the stock or ownership of the bidder, then such fact should be certified below as part of this disclosure.

**Name of Company** \_\_\_\_\_

***List of Owners with Ten Percent (10%) or More Interest***

| <u>Owner's Name</u> | <u>Home Address</u> |
|---------------------|---------------------|
|                     |                     |
|                     |                     |
|                     |                     |
|                     |                     |
|                     |                     |
|                     |                     |

*NOTE:* If you need more space than that provided above, please use an extra sheet for furnishing the above required information for any remaining persons or entities.

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

This form shall be completed, signed and submitted with the bid/proposal. The form continues on the next page.

**STOCKHOLDER/PARTNERSHIP DISCLOSURE AND STATEMENT OF OWNERSHIP (cont.)**

If your firm is not a corporation and/or partnership, please explain below how your firm is organized and include a list of the various principals.

Our firm, \_\_\_\_\_, is organized

\_\_\_\_\_  
\_\_\_\_\_

Names of Principals

Title

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Use additional paper if needed. Check here  if additional sheets are attached.

Name of Company \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Authorized Agent \_\_\_\_\_ Title \_\_\_\_\_

**SIGNATURE OF AUTHORIZED AGENT**

This form shall be completed, signed and submitted with the bid/proposal.

# SUBCONTRACTOR'S DISCLOSURE FORM

## Media Center Alterations at Hamilton Elementary School

Cont. No. 5

Bid Date July 9, 2020

The \_\_\_\_\_ *(Name of Bidding Company)*

**Please Check One!** \_\_\_\_\_ will sub-contract a portion of this project.  
 \_\_\_\_\_ will not sub-contract any portion of this project.

**Authorized Agent** \_\_\_\_\_ **Title** \_\_\_\_\_

**Signature of Bidder** \_\_\_\_\_ **Date** \_\_\_\_\_

If the bidder is not going to subcontract any portion of this project, the bidder need not complete any further part of this document.

If the bidder will subcontract any of the following:

- Plumbing/gas fitting work;
- Refrigeration/heating/ventilating systems & equipment
- Electrical work, tele-data, fire alarm or security systems
- Structural steel/ornamental iron work

the bidder must do the following:

- Identify the contract number and type of work he intends to subcontract;
- Provide the name, address and other pertinent information about the subcontractor;\*
- If the cost of the work by the subcontractor shall exceed the amounts listed below, the bidder shall provide in the bid package submission the following documents:

| <b><u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u></b>          |   |  |
|---|---|--|
| <i><u>Estimated Value of Contract – Subcontractor</u></i> | <i>For Subcontractors in the four major branches listed above</i>   | <i>For all other Subcontractors</i>                                    |
|   | <b><u>Submit With Bid</u></b>   | <b><u>Submit Within ten (10 Days of Receipt of Notice of Award</u></b> |
| \$2,000 through \$5,999                                   | Contractor's Registration Certificate   |  |
| \$6,000 through \$17,499                                  | Contractor's Registration Certificate<br>New Jersey Business Registration Certificate   |  |
| \$17,500 through \$19,999                                 | Contractor's Registration Certificate<br>New Jersey Business Registration Certificate<br>Chapter 271 Political Contribution Disclosure Form   |  |
| \$20,000 or more  | Contractor's Registration Certificate<br>New Jersey Business Registration Certificate<br>Chapter 271 Political Contribution Disclosure Form<br>Notice of Classification<br>Total Amount of Uncompleted Contracts -- Certified |  |

Please list subcontractor(s) on the following pages. Bidders may make extra copies of the following pages.

\* Failure to identify the names and addresses of any subcontractors required to be named in the bid, or to submit the appropriate documents for each such subcontractor, may be cause for the bid to be rejected as being non-responsive.

(Form continued on next page)

**Subcontractor's Disclosure Statement (Continued)**

**Media Center Alterations at Hamilton Elementary School**

Cont. No. 5

Bid Date July 9, 2020

Name of Trade/Type of Work \_\_\_\_\_

Name of Subcontracting Company \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

E-Mail \_\_\_\_\_ FEIN No: \_\_\_\_\_

Authorized Agent \_\_\_\_\_ Title \_\_\_\_\_

Will the cost of sub-contract exceed \$20,000.00?

\_\_\_\_\_ Yes Estimated Value of Contract \$ \_\_\_\_\_

\_\_\_\_\_ No Estimated Value of Contract \$ \_\_\_\_\_

If checked **yes**, the sub-contractor must be pre-qualified to perform the work. The bidder must provide in the bid package the following:

- The subcontractor's Notice of Classification;
- The subcontractor's Total Amount of Uncompleted Contracts; and
- Other documents that are required:

| <b><u>SUBCONTRACTOR DOCUMENT SUBMISSIONS</u></b>          |   |  |
|---|---|--|
| <i><u>Estimated Value of Contract – Subcontractor</u></i> | <i>For Subcontractors in the four major branches listed above</i>   | <i>For all other Subcontractors</i>                                    |
|   | <b><u>Submit With Bid</u></b>   | <b><u>Submit Within ten (10 Days of Receipt of Notice of Award</u></b> |
| \$2,000 through \$5,999                                   | Contractor's Registration Certificate   |  |
| \$6,000 through \$17,499                                  | Contractor's Registration Certificate<br>New Jersey Business Registration Certificate   |  |
| \$17,500 through \$19,999                                 | Contractor's Registration Certificate<br>New Jersey Business Registration Certificate<br>Chapter 271 Political Contribution Disclosure Form   |  |
| \$20,000 or more  | Contractor's Registration Certificate<br>New Jersey Business Registration Certificate<br>Chapter 271 Political Contribution Disclosure Form<br>Notice of Classification<br>Total Amount of Uncompleted Contracts -- Certified |  |

Certification of Equipment

The \_\_\_\_\_ hereby certifies the above named  
*Name of Bidding Company*  
subcontractor has the personnel, equipment, experience, financial and sufficient means to complete their portion of the contract in full accordance with the bid specifications.

\_\_\_\_\_  
**Authorized Agent (Print) -- Bidder**

\_\_\_\_\_  
***Signature of Authorized Agent—Bidder***

## APPENDIX A

### AMERICANS WITH DISABILITIES ACT OF 1990 Equal Opportunity for Individuals with Disability

The contractor and the Board of Education (hereafter "owner") do hereby agree that the provisions of Title 11 of the Americans With Disabilities Act of 1990 (the "Act") (42 U.S.C. S121 01 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs, and activities provided or made available by public entities, and the rules and regulations promulgated pursuant there unto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the owner pursuant to this contract, the contractor agrees that the performance shall be in strict compliance with the Act. In the event that the contractor, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the contractor shall defend the owner in any action or administrative proceeding commenced pursuant to this Act. The contractor shall indemnify, protect, and save harmless the owner, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages, of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The contractor shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the owner's grievance procedure, the contractor agrees to abide by any decision of the owner which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the owner, or if the owner incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the contractor shall satisfy and discharge the same at its own expense.

The owner shall, as soon as practicable after a claim has been made against it, give written notice thereof to the contractor along with full and complete particulars of the claim, If any action or administrative proceeding is brought against the owner or any of its agents, servants, and employees, the *owner shall* expeditiously forward or have forwarded to the contractor every demand, complaint, notice, summons, pleading, or other process received by the owner or its representatives.

It is expressly agreed and understood that any approval by the owner of the services provided by the contractor pursuant to this contract will not relieve the contractor of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the owner pursuant to this paragraph.

It is further agreed and understood that the owner assumes no obligation to indemnify or save harmless the contractor, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the contractor expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the contractor's obligations assumed in this Agreement, nor shall they be construed to relieve the contractor from any liability, nor preclude the owner from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

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**EXHIBIT B**  
**MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE**  
**N.J.S.A. 10:5-31 et seq. (P.L.1975, c.127)**  
**N.J.A.C. 17:27-1.1 et seq.**  
**CONSTRUCTION CONTRACTS**

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. 17:27-7.2; provided, however, that the Dept. of LWD, Construction EEO Monitoring Program, may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions, A, B, and C, as long as the Dept. of LWD, Construction EEO Monitoring Program is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Dept. of LWD, Construction EEO Monitoring Program, that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with N.J.A.C. 17:27-7.2. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

- (A) If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seq., as supplemented and amended from time to time and the Americans with Disabilities Act. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the contractor or subcontractor agrees to afford equal employment opportunities minority and women workers directly, consistent with this chapter. If the contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under (B) below; and the contractor or subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.
- (B) If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of (A) above, or if the contractor does not have a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor agrees to take the following actions:

**EXHIBIT B (Continued)**

- (1) To notify the public agency compliance officer, the Dept. of LWD, Construction EEO Monitoring Program, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;
  - (2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;
  - (3) Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;
  - (4) To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;
  - (5) If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and nondiscrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;
  - (6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:
    - (i) The contractor or subcontractor shall interview the referred minority or women worker.
    - (ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall in good faith determine the qualifications of such individuals. The contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Dept. of LWD, Construction EEO Monitoring Program. If necessary, the contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (C) below.
    - (iii) The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Dept. of LWD, Construction EEO Monitoring Program, the contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.
    - (iv) If, for any reason, said contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Dept. of LWD, Construction EEO Monitoring Program.
  - (7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Dept. of LWD, Construction EEO Monitoring Program and submitted promptly to the Dept. of LWD, Construction EEO Monitoring Program upon request.
- (C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

**EXHIBIT B (Continued)**

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Dept. of LWD, Construction EEO Monitoring Program an initial project workforce report (Form AA-201) electronically provided to the public agency by the Dept. of LWD, Construction EEO Monitoring Program, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Dept. of LWD, Construction EEO Monitoring Program, and to the public agency compliance officer.

The contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the job programs for outreach and training of minorities and women.

- (D) The contractor and its subcontractors shall furnish such reports or other documents to the Dept. of LWD, Construction EEO Monitoring Program as may be requested by the Dept. of LWD, Construction EEO Monitoring Program from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Dept. of LWD, Construction EEO Monitoring Program for conducting a compliance investigation pursuant to N.J.A.C. 17:27-1.1 et seq.

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**STATE OF NEW JERSEY**  
 DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT  
 CONSTRUCTION EEO COMPLIANCE MONITORING PROGRAM

**Official Use Only**

Assignment \_\_\_\_\_

Code \_\_\_\_\_

FORM AA-201  
 Revised 11/11

**INITIAL PROJECT WORKFORCE REPORT CONSTRUCTION**

For instructions on completing the form, go to: [http://www.state.nj.us/treasury/contract\\_compliance/pdf/aa201ins.pdf](http://www.state.nj.us/treasury/contract_compliance/pdf/aa201ins.pdf)

|   |  |                         |  |  |  |                              |  |  |  |                           |  |
|---|--|-------------------------|--|--|--|------------------------------|--|--|--|---------------------------|--|
| 1. FID NUMBER   |  | 2. CONTRACTOR ID NUMBER |  | 5. NAME AND ADDRESS OF PUBLIC AGENCY AWARDED CONTRACT<br>Name: _____<br>Address: _____ |  |                              |  |  |  |                           |  |
| 3. NAME AND ADDRESS OF PRIME CONTRACTOR<br>_____<br>(Name)<br>_____<br>(Street Address)<br>_____<br>(City)      (State)      (Zip Code) |  |                         |  | CONTRACT NUMBER  |  | DATE OF AWARD                |  | DOLLAR AMOUNT OF AWARD   |  |                           |  |
| 4. IS THIS COMPANY MINORITY OWNED <input type="checkbox"/> OR WOMAN OWNED <input type="checkbox"/>                                      |  |                         |  | 6. NAME AND ADDRESS OF PROJECT<br>Name: _____<br>Address: _____                        |  | 7. PROJECT NUMBER            |  | 8. IS THIS PROJECT COVERED BY A PROJECT LABOR AGREEMENT (PLA)? YES <input checked="" type="checkbox"/> |  |                           |  |
| 9. TRADE OR CRAFT   |  |                         |  | PROJECTED TOTAL EMPLOYEES  |  | PROJECTED MINORITY EMPLOYEES |  | PROJECTED PHASE - IN DATE  |  | PROJECTED COMPLETION DATE |  |
|   |  |                         |  | MALE   |  | FEMALE                       |  |  |  |                           |  |
|   |  |                         |  | J    AP  |  | J    AP                      |  |  |  |                           |  |
| 1. ASBESTOS WORKER  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 2. BRICKLAYER OR MASON  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 3. CARPENTER  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 4. ELECTRICIAN  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 5. GLAZIER  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 6. HVAC MECHANIC  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 7. IRONWORKER   |  |                         |  |  |  |                              |  |  |  |                           |  |
| 8. OPERATING ENGINEER   |  |                         |  |  |  |                              |  |  |  |                           |  |
| 9. PAINTER  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 10. PLUMBER   |  |                         |  |  |  |                              |  |  |  |                           |  |
| 11. ROOFER  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 12. SHEET METAL WORKER  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 13. SPRINKLER FITTER  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 14. STEAMFITTER   |  |                         |  |  |  |                              |  |  |  |                           |  |
| 15. SURVEYOR  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 16. TILER   |  |                         |  |  |  |                              |  |  |  |                           |  |
| 17. TRUCK DRIVER  |  |                         |  |  |  |                              |  |  |  |                           |  |
| 18. LABORER   |  |                         |  |  |  |                              |  |  |  |                           |  |
| 19. OTHER   |  |                         |  |  |  |                              |  |  |  |                           |  |
| 20. OTHER   |  |                         |  |  |  |                              |  |  |  |                           |  |

Sample - AA201

I hereby certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements are willfully false, I am subject to punishment.

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

10. \_\_\_\_\_ (Please Print Your Name) \_\_\_\_\_ (Title)  
 \_\_\_\_\_ (Area Code) \_\_\_\_\_ (Telephone Number) \_\_\_\_\_ (Ext.) \_\_\_\_\_ (Date)

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**INSTRUCTIONS FOR COMPLETING THE INITIAL PROJECT**

**WORKFORCE REPORT – CONSTRUCTION (AA201)**

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DO NOT COMPLETE THIS FORM FOR GOODS AND/OR SERVICE CONTRACTS

1. Enter the Federal Identification Number assigned to the contractor by the Internal Revenue Service, or if a Federal Employer Identification Number has been applied for but not yet issued, or if your business is such that you have not or will not receive a Federal Identification Number, enter the social security number assigned to the single owner or one partner, in the case of a partnership.
2. Note: The Department of Labor & Workforce Development, Construction EEO Monitoring Program will assign a contractor ID number to your company. This number will be your permanently assigned contractor ID number that must be on all correspondence and reports submitted to this office.
3. Enter the prime contractor’s name, address and zip code number.
4. Check box if Company is Minority Owned or Woman Owned
5. Enter the complete name and address of the Public Agency awarding the contract. Include the contract number, date of award and dollar amount of the contract.
6. Enter the name and address of the project, including the county in which the project is located.
7. Note: A project contract ID number will be assigned to your firm upon receipt of the completed Initial Project Workforce Report (AA201) for this contract. This number must be indicated on all correspondence and reports submitted to this office relating to this contract.
8. Check “Yes” or “No” to indicate whether a Project Labor Agreement (PLA) was established with the labor organization(s) for this project.
9. Under the Projected Total Number of Employees in each trade or craft and at each level of classification, enter the total composite workforce of the prime contractor and all subcontractors projected to work on the project. Under Projected Employees enter total minority and female employees of the prime contractor and all subcontractors projected to work on the project. Minority employees include Black, Hispanic, American Indian and Asian, (J=Journeyworker, AP=Apprentice). Include projected phase-in and completion dates.
10. Print or type the name of the company official or authorized Equal Employment Opportunity (EEO) official include signature and title, phone number and date the report is submitted.

This report must be submitted to the Public Agency that awards the contract and the Department of Labor & Workforce Development, Construction EEO Compliance Monitoring Program after notification of award, but prior to signing the contract.

**THE CONTRACTOR IS TO RETAIN A COPY AND SUBMIT COPY TO THE PUBLIC AGENCY  
AWARDING THE CONTRACT AND FORWARD A COPY TO:**

**NEW JERSEY DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT  
CONSTRUCTION EEO COMPLIANCE MONITORING UNIT  
P.O. BOX 209  
TRENTON, NJ 08625-0209  
(609) 292-9550**



# Appendix Section

A. Model Performance Bond Form - *Sample*

B. Surety Disclosure Statement and Certification - *Sample*

**Model Performance Bond Form**  
N.J.S.A. 2A:44-147

***SAMPLE***

2A:44-147. The bond required by this article shall be in substantially the following form:

"Know all men by these presents, that we, the undersigned as principal and as sureties, are hereby held and firmly bound unto in the penal sum of dollars, for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

"Signed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

"The condition of the above obligation is such that whereas, the above named principal did on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, enter into a contract with \_\_\_\_\_, which said contract is made a part of this the bond the same as though set forth herein;

"Now, if the said \_\_\_\_\_ shall well and faithfully do and perform the things agreed by \_\_\_\_\_ to be done and performed according to the terms of said contract, and shall pay all lawful claims of beneficiaries as defined by N.J.S.2A:44-143 for labor performed or materials, provisions, provender or other supplies or teams, fuels, oils, implements or machinery furnished, used or consumed in the carrying forward, performing or completing of said contract, we agreeing and assenting that this undertaking shall be for the benefit of any beneficiary as defined in N.J.S.2A:44-143 having a just claim, as well as for the oblige herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

"The said surety hereby stipulates and agrees that no modifications, omissions or additions in or to the terms of the said contract or in or to the plans or specifications therefor shall in anywise affect the obligation of said surety on its bond."

Recovery of any claimant under the bond shall be subject to the conditions and provisions of this article to the same extent as if such conditions and provisions were fully incorporated in the form set forth above.

L.1951 (1st SS), c.344; amended [1996, c.81](#), s.6.



**Surety Disclosure Statement and Certification**

N.J.S. A. 2A:44-143

***SAMPLE***

**SURETY DISCLOSURE STATEMENT AND CERTIFICATION**

\_\_\_\_\_, surety(ies) on the attached bond, hereby certifies(y) the following:

(1) The surety meets the applicable capital and surplus requirements of R.S.17:17-6 or R.S.17:17-7 as of the surety's most current annual filing with the New Jersey Department of Insurance.

(2) The capital (where applicable) and surplus, as determined in accordance with the applicable laws of this State, of the surety(ies) participating in the issuance of the attached bond is (are) in the following amount(s) as of the calendar year ended December 31, ..... (most recent calendar year for which capital and surplus amounts are available), which amounts have been certified as indicated by certified public accountants (indicating separately for each surety that surety's capital and surplus amounts, together with the name and address of the firm of certified public accounts that shall have certified those amounts):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(3) (a) With respect to each surety participating in the issuance of the attached bond that has received from the United States Secretary of the Treasury a certificate of authority pursuant to 31 U.S.C. 9305, the underwriting limitation established therein and the date as of which that limitation was effective is as follows (indicating for each such surety that surety's underwriting limitation and the effective date thereof):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(b) With respect to each surety participating in the issuance of the attached bond that has not received such a certificate of authority from the United States Secretary of the Treasury, the underwriting limitation of that surety as established pursuant to R.S.17:18-9 as of (date on which such limitation was so established) is as follows (indicating for each such surety that surety's underwriting limitation and the date on which that limitation was established):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(4) The amount of the bond to which this statement and certification is attached is \$ \_\_\_\_\_

(5) If, by virtue of one or more contracts of reinsurance, the amount of the bond indicated under item (4) above exceeds the total underwriting limitation of all sureties on the bond as set forth in items (3)(a) or (3)(b) above, or both, then for each such contract of reinsurance:

(a) The name and address of each such reinsurer under that contract and the amount of that reinsurer's participation in the contract is as follows \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ and

(b) Each surety that is party to any such contract of reinsurance certifies that each reinsurer listed under item (5)(a) satisfies the credit for reinsurance requirement established under P.L. [1993, c.243](#) (C.17:51B-1 et seq.) and any applicable regulations in effect as of the date on which the bond to which this statement and certification is attached shall have been filed with the appropriate public agency.

CERTIFICATE

(to be completed by an authorized certifying agent

for each surety on the bond)

I \_\_\_\_\_ (name of agent), as \_\_\_\_\_ (title of agent) for \_\_\_\_\_ (name of surety), a corporation/mutual insurance company/other (indicating type of business organization) (circle one) domiciled in \_\_\_\_\_ (state of domicile), DO HEREBY CERTIFY that, to the best of my knowledge, the foregoing statements made by me are true, and ACKNOWLEDGE that, if any of those statements are false, this bond is VOIDABLE.

\_\_\_\_\_

(Signature of certifying agent)

\_\_\_\_\_

(Printed name of certifying agent)

\_\_\_\_\_

(Title of certifying agent)

L.1951 (1st SS), c.344; amended [1979, c.408](#); [1989, c.316](#); [1991, c.454](#); 1995, c.38, s.2; [1995, c.384](#), s.1; [1996, c.81](#), s.2.

TO All Bidders:

**REMINDER!**

Did you sign all of the bid documents?

All bid documents returned to the Board shall be signed with original signatures. Please try to use **blue ink**.

The Board will not accept facsimile or rubber stamp signatures.

Failure to sign and submit all bid documents may be cause for disqualification and rejection of the bid.



# DRAFT AIA® Document A101™ - 2017

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

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

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

Voorhees Township Board of Education  
329 Route 73  
Voorhees, New Jersey 08043

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

To Be Determined

« »  
« »  
« »

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

Media Center Alterations  
At Hamilton Elementary School  
23 Northgate Drive  
Voorhees, New Jersey 08043

The Architect:  
LAN Associates Engineering, Planning, Architecture, Surveying, Inc.  
1500 Walnut Street, Suite 205  
Philadelphia, Pennsylvania 19102

The Owner and Contractor agree as follows.

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

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

The parties should complete A101™-2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201™-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

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

## TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
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- 5 PAYMENTS
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- 7 TERMINATION OR SUSPENSION
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### EXHIBIT A INSURANCE AND BONDS

#### ARTICLE 1 THE CONTRACT DOCUMENTS

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

#### ARTICLE 2 THE WORK OF THIS CONTRACT

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

#### ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:  
(Check one of the following boxes.)

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

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

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

#### § 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:  
(Check one of the following boxes and complete the necessary information.)

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

[  ] By the following date: **October 2, 2020**

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

| Portion of Work   | Substantial Completion Date |
|---|-----------------------------|
| All work with exception of long lead items (casework, millwork, and countertops). | September 2, 2020           |

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

#### ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be  (\$  ), subject to additions and deductions as provided in the Contract Documents.

#### § 4.2 Alternates

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

| Item           | Price          |
|----------------|----------------|
| Not Applicable | Not Applicable |

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. N/A  
(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

| Item           | Price          | Conditions for Acceptance |
|----------------|----------------|---------------------------|
| Not Applicable | Not Applicable |                           |

§ 4.3 Allowances, if any, included in the Contract Sum:  
(Identify each allowance.)

| Item                                    | Price      |
|---|------------|
| Allowance No. 1 – Unforeseen Conditions | \$7,500.00 |

§ 4.4 Unit prices, if any: SEE ATTACHED UNIT PRICE SCHEDULE  
(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) |
|----------------|-----------------------|-------------------------|
| Not Applicable | Not Applicable        | Not Applicable          |

§ 4.5 Liquidated damages, if any:  
(Insert terms and conditions for liquidated damages, if any.)

The Contractor understands and agrees that all work must be performed in an orderly and closely coordinated sequence so that the dates for Substantial Completion and Final Completion are met. TIME IS OF THE ESSENCE.

If the Contractor fails to complete his work or fails to complete a portion of his work and therefore not achieve Substantial Completion and/or Final Completion on the respective dates required, he shall pay the Owner, as liquidated damages and not as a penalty, One Thousand Dollars (\$1,000.00) per day, which is agreed upon as a reasonable and proper measure which the Owner will sustain each calendar day by failure of the Contractor to complete work within the stipulated time for the milestone dates.

The Owner will suffer significant financial loss if the project is not substantially complete on time. Liquidated Damages will be assessed if the Project is not partially substantially complete by **September 2, 2020** to obtain Owner occupancy. The balance of work (installation of long lead items) shall be substantially complete by **October 2, 2020**. The Contractor (and the Contractor's Surety) shall be liable for and pay to the Owner the sum of \$1,000.00 stipulated and fixed, agreed as liquidated damages for each calendar day of delay until the work is substantially complete..

Final Completion must be reached Thirty (30) days following the date fixed in the contract for Substantial Completion. The Contractor (and the Contractor's Surety) shall be liable for and pay to the Owner the sum of \$1,000.00 stipulated and fixed, agreed as liquidated damages for each calendar day of delay until the work is finally complete.

**{PER SCHEDULE IN SPECIFICATIONS}**

Substantial Completion will be determined by the Architect as defined in paragraph 9.8.1 of the General Conditions.

For damage occurring at the time of delay, the Owner may retain the amount due to him under this clause from any payments due to the Contractor.

**§ 4.6 Other:**

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

Not Applicable

**ARTICLE 5 PAYMENTS**

**§ 5.1 PROGRESS PAYMENTS**

**§ 5.1.1** Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents. An application for Payment shall include all work performed in one calendar month.

**§ 5.1.2** Contractor shall submit a Pencil Copy / Rough Draft of the Application for Payment to the Owner's Representative and Construction Manager for review no later than the 15 calendar days prior to the first Friday of the month payment is requested from Owner.

Owner's Representative and Construction Manager will review the Pencil Copy / Rough Draft of the Application for Payment and return to the Contractor within five (5) calendar days from their receipt of same.

**§ 5.1.3 Certified Application for Payment.**

.1. Within three (3) calendar days after receipt of accepted Pencil / Rough Draft of the Application for Payment the Contractor shall submit three (3) Certified Applications for Payment to the Owner's Representative for signatures.

.2. The Owner's Representative shall sign the Certified Application for Payment within five (5) calendar days upon receipt and shall transmit one (1) Certified Application for Payment to Owner on the first Friday of the month payment is requested. The Owner's Representative shall transmit one (1) Certified Application for Payment to the Contractor and retain one (1) Certified Application for Payment for its records. (Federal, state or local laws may require payment within a certain period of time.)

**§ 5.1.3.1** The form for Applications for Payment shall be a notarized AIA Document G702, Application and Certification for Payment, supported by AIA document G703 Continuation Sheets. Each Application for Payment must be accompanied by three (3) sets of Certified Payroll Records for the period covered by the Application. The



payroll records shall indicate the proper classification of employees and the payment of overtime, if any. These records shall include each Contractor's subcontractor's certified payroll. Payment will not be authorized if the required payroll records have not been submitted.

§ 5.1.3.2 All Applications for Payment, Certified Payroll Records and Manning Reports shall include the relevant purchase order number and project number.

§ 5.1.3.3 Pursuant to N.J.S.A. 2A:30A-1, et seq. ("the Act"), the Owner is not required to approve the Contractor's Application for Payment until the next scheduled public meeting of the Board of Education following the Owner's receipt of the Architect's Certificate for Payment. Under said Act, the Owner shall not make payment to the Contractor for the payment amount until the Owner's subsequent payment cycle following its approval of the Application for Payment.

§ 5.1.3.4 Pursuant to the above Act, if a payment due pursuant to the provisions herein is not made in a timely manner, the Owner shall be liable for the amount of money owed under the Contract, plus interest at a rate equal to the prime rate plus one percent (1%), notwithstanding anything to the contrary in the Contract Documents. Interest on amounts due pursuant to the Act shall be paid to the prime Contractor for the period beginning on the day after the required payment date and ending on the day on which the check for payment is received by the Contractor.

§ 5.1.3.5 Disputes regarding whether a party has failed to make payments required by the Act must be submitted to a process of alternative dispute resolution, notwithstanding anything to the contrary in the Contract Documents. Alternative dispute resolution permitted by the Act shall apply to disputes over payment only and shall not apply to disputes concerning any other matters that may arise under or from this Contract. Any civil action brought to collect payments shall be conducted in Camden County, State of New Jersey, and the prevailing party shall be awarded reasonable costs and attorneys' fees. See Article 6 of this Agreement regarding Claims and Disputes.

§ 5.1.4 The Architect may decide to disapprove an Application for Payment, or withhold payment, in whole or in part, to the extent reasonably necessary to protect the Owner if, in the Architect's opinion, the representations as described in Section 5.1.4.1 below cannot be made to the Owner. If the Architect withholds a Certificate for Payment, the Architect will notify the Contractor and Owner as provided in Article 5 hereof. The Architect may also decide to withhold certifying payment in whole or in part, because of subsequently discovered evidence or subsequent observations, to such extent as may be necessary to protect the Owner from loss because of:

1. Defective Work which has not been remedied;
2. Third party claims filed or reasonable belief probable filing of such claims;
3. Failure of the Contractor to make payments properly to vendors, subcontractors or for labor, materials and equipment;
4. Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract sum;
5. Damage to the Owner or another 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. Failure to carry out the Work in accordance with the Contract Documents;
8. Avoidable delay in the progress of the Work;
9. Deliberate delay in the submission for approval of names of Subcontractors, material men, sources of supply, shop drawings and samples;
10. Failure to maintain the Project Site in a safe and satisfactory condition in accordance with good construction practices as recommended by the Architect after consultation with the Contractor; and
11. Failure to submit updates as requested by the District or as required by the General Conditions, attached hereto.

When the foregoing reasons for withholding payment are resolved, certification will be made for amounts previously withheld in the manner set forth in Section 5.1.3 above.

§ 5.1.4.1 The issuance of a separate Certificate for Payment will constitute representations made separately by the Architect to the Owner, based on its individual observations at the Site and the data comprising the Application for Payment submitted by the Contractor, that the Work has progressed to the point indicated and that, to the best of the Architect's knowledge, information and belief, quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract

Documents upon Substantial Completion, to results of subsequent tests and inspections, to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by the Architect. The issuance of a separate Certificate for Payment will further constitute a representation that the Contactor is entitled to payment in the amount certified. However, the issuance of a separate Certificate for Payment will not be a representation that the Architect has: (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed the Contractor's construction means, methods, techniques, sequences or procedures; (3) reviewed copies of requisitions received from Subcontractors and material 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 Contact Sum.

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

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

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

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

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

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

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
- .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

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

Retainage shall be determined as follows: Pursuant to N.J.S.A. 18A:18A-40.3, the Owner will withhold two percent (2%) of the amount due on each partial payment when the outstanding balance of the Contract exceeds Five Hundred Thousand Dollars (\$500,000.00). The Owner will withhold five percent (5%) of the amount due on each partial payment when the outstanding balance of the Contract is Five Hundred Thousand Dollars (\$500,000.00) or less. Retainage shall be withheld until the Owner approves the Architect's determination that the work has been satisfactorily completed and no unsettled claims exist. The final acceptance shall not be binding or conclusive upon the Owner should it subsequently discover that the contractor has supplied inferior material or workmanship or has departed from the terms of his contract. Should such a condition appear the Owner shall have the right, notwithstanding final acceptance and payment, to cause the work to be properly done in accordance with the drawings and specifications at the cost and expense of the contractor.

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

« »

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

Not Applicable

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

« »

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

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

## § 5.2 Final Payment

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

- .1 the Contractor has fully performed the Contract except for the Contractor’s responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

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

« »

## § 5.3 Interest

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

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

0 % «Zero Percent

## ARTICLE 6 DISPUTE RESOLUTION

### § 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.  
(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

« »

« »

« »

**§ 6.2 Binding Dispute Resolution**

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

*(Check the appropriate box.)*

[ << >> ] Arbitration pursuant to Section 15.4 of AIA Document A201–2017

[ XX ] Litigation in a court of competent jurisdiction

[ << >> ] Other *(Specify)*

<< >>

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

**ARTICLE 7 TERMINATION OR SUSPENSION**

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

**§ 7.1.1** If the Contract is terminated for the Owner’s convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

*(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner’s convenience.)*

Not Applicable

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

**ARTICLE 8 MISCELLANEOUS PROVISIONS**

**§ 8.1** Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

**§ 8.2** The Owner’s representative:  
*(Name, address, email address, and other information)*

LAN Associates Engineering, Planning, Architecture, Surveying, Inc.  
Mr. Ronald Schwenke, AIA, LEED AP  
Senior Associate  
1500 Walnut Street, Suite 205  
Philadelphia, Pennsylvania 19102  
E: ron.schwenke@lanassociates.com  
C: 267.279.0783

**§ 8.3** The Contractor’s representative:  
*(Name, address, email address, and other information)*

To Be Determined

<< >>  
<< >>  
<< >>  
<< >>  
<< >>

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

### § 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™-2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A201™-2017 and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201-2017, may be given in accordance with AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below: **NOT APPLICABLE**

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

« »

### § 8.7 Other provisions:

1. Payments due and unpaid under the Contract shall in no instance bear interest, except as required by law pursuant to section 5.1.3.4 of this Agreement.
2. The contractor shall ensure that the Project Site is maintained in a clean and safe condition at all times. If the contractor fails to keep the Project Site in a clean and safe condition, said failure shall result in the following:
  - a. All claims resulting from the Contractor's failure shall be the Contractor's sole responsibility;
  - b. Said failure shall constitute an act of default and a substantial breach of the Contract giving the Owner remedies under the Contract Documents; and
  - c. The Owner shall have the right to withhold any payments until the Contractor cures its failure.

Failure to cure shall authorize the Owner to withhold any Certifications for Payment until such time as the Contractor has rectified same. Further, if the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the cost thereof shall be charged to the Contractor.

3. The within contract shall be governed by and interpreted pursuant to the laws of the State of New Jersey.
4. The Contractor shall comply with the anti-discrimination provisions of N.J.S.A. 10:2-1, et seq., the New Jersey Law Against Discrimination, N.J.S.A. 10:5-1, et seq., and all provisions regarding equal employment opportunity, N.J.S.A. 10:5-31, et seq., N.J.A.C. 17:27-1.1, and N.J.A.C. 6A:7-1.8. The Owner and the Contractor guaranty to afford equal opportunity in the performance of this Contract in accordance with an affirmative action program approved by the State Treasurer and shall provide the documents required for this Project.
5. To perform the services provided for herein, the Contractor and its prime subcontractors shall be prequalified/classified by the New Jersey Department of Treasury, Division of Property, Management and Construction. The failure to possess or obtain such classifications shall result in the immediate termination of this Agreement.
6. The Contractor represents that, to the best of its knowledge, information and belief, none of its employees in engaged in conduct that constitutes a conflict of interest under, or a violation of, the School Ethics Act, N.J.S.A. 18A:12-21, et seq., and N.J.A.C. 6A:28-1.1, et seq.

7. The Contractor shall provide written notice to its subcontractors and suppliers of the responsibility to submit proof of business registration in the State of New Jersey to the Contractor. The requirement of proof of business registration extends down through all levels (tiers) of the Project.
8. Before final payment on the contract is made by Owner, the Contractor shall submit an accurate list and the proof of business registration in the State of New Jersey of each subcontractor or supplier used in the fulfillment of the contract, or shall attest that no subcontractors were used.
9. For the term of the Agreement, the Contractor, any subcontractor and each of their affiliates, so designated pursuant to N.J.S.A. 52:32-44(g)(3), shall collect and remit to the New Jersey Director of the Division of Taxation in the Department of Treasury, the use tax due pursuant to the Sales and Use Tax Act, N.J.S.A. 52:32B-1, et seq., on all of their sales of tangible personal property delivered into the State of New Jersey, regardless of whether the tangible personal property is intended for a contract with a contracting agency. For purposes herein, "affiliate" shall mean any entity that: (a) directly, indirectly or constructively controls another entity; (b) is directly, indirectly or constructively controlled by another entity; or, (c) is subject to the control of a common entity. For purposes of the immediately preceding sentence, an entity controls another entity if it owns, directly or indirectly, more than fifty percent (50%) of the ownership interest of that entity.
10. It is the obligation of the Contractor to provide a full and complete copy of all insurance policies held by it at the Contractor's sole expense, upon reasonable request by the Owner, in the amounts specified in the Bid Documents ( see Article 11 of modified AIA Document A201-2017 General Conditions of the Contract for Construction). The Contractor's failure to obtain or maintain adequate insurance coverage shall result in the immediate termination of this Agreement. The Owner will have the right to request copies of the Contractor's insurance policies or any part thereof for the duration of the contract period.
11. This Agreement and the General Conditions of the Contract as modified or supplemented in writing, shall control in the case of conflict between these documents and the Project Specifications, the Project Manual and any other exhibits incorporated by reference into this Agreement in Article 9 herein.

**ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS**

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™-2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™-2017, Exhibit A, Insurance and Bonds – **NOT APPLICABLE – SEE THE A201-2017**
- .3 AIA Document A201™-2017, General Conditions of the Contract for Construction
- .4 AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below: **NOT APPLICABLE**  
*(Insert the date of the E203-2013 incorporated into this Agreement.)*

<< >>

- .5 Drawings **SEE ATTACHED TABLE OF CONTENTS**

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

- .6 Specifications **SEE ATTACHED TABLE OF CONTENTS**

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

- .7 Addenda, if any:

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

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract

Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

- .8 Other Exhibits:  
(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

AIA Document E204™-2017, Sustainable Projects Exhibit, dated as indicated below:  
(Insert the date of the E204-2017 incorporated into this Agreement.)

« »

The Sustainability Plan:

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

Supplementary and other Conditions of the Contract: **THESE ARE INCORPORATED DIRECTLY INTO THE AIA A201.**

| Document | Title | Date | Pages |
|----------|-------|------|-------|
|          |       |      |       |

- .9 Other documents, if any, listed below:  
(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

Mandatory Equal Employment Opportunity Language, annexed hereto and made a part hereof

New Jersey Department of Labor and Workforce Development Prevailing Wage Rate Determination

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

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

Ms. Helen G. Haley, CPA,  
Business Administrator/Board Secretary

(Printed name and title)

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

To Be Determined

(Printed name and title)





# DRAFT AIA® Document A201™ – 2017

## General Conditions of the Contract for Construction

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

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

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

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## INDEX

(Topics and numbers in bold are Section headings.)

### **Acceptance of Nonconforming Work**

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**NOTE: THE WORD "CONTRACTOR" SHALL MEAN THE PRIME CONTRACTOR WITH WHOM THE CONTRACT HAS BEEN EXECUTED.**

## **ARTICLE 1 GENERAL PROVISIONS**

### **§ 1.1 Basic Definitions**

#### **§ 1.1.1 The Contract Documents**

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

***§1.1.1.1 The Contract Documents shall include the Bidding Requirements, including, but not be limited to advertisement or Invitation to Bid, Instructions to Bidders, the Contractor's Bid Proposal Form and other bidding forms, Addenda or portions of the Addenda relating to any Bidding Documents. The Contract Documents shall apply to all Prime Contractors for the Project and each Prime Contractor is responsible for the content of all.***

#### **§ 1.1.2 The Contract**

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

***§1.1.2.1 The Contractor acknowledges and warrants that it has closely examined all of the Contract Documents, that they are suitable and sufficient to enable the Contractor to complete the Work in a timely manner for the Contract Sum, and that they include all Work, whether or not shown or described, which reasonably may be inferred to be required or useful for the completion of the Work in full compliance with all applicable codes, laws, ordinances and regulations and that questions regarding the bid documents and any interpretation(s) regarding same have been asked by the contractor, in the form and manner required in the instructions to bidders.***

#### **§ 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.

***§1.1.3.1 It is strongly encouraged for the Contractor to visit the site of the Project before submitting a bid. Such site visit shall be for the purpose of familiarizing the Contractor with the conditions as they exist and the character of the operations to be carried on under the Contract Documents, including all existing site conditions, access to the site, physical characteristics of the site and surrounding areas.***

***§1.1.3.2 Nothing in these General Conditions shall be interpreted as imposing on either the Owner or Architect, or their respective agents, employees, officers, directors or consultants, any duty, obligation or authority with respect to any items that are not intended to be incorporated into the completed project, including but not limited to shoring, scaffolding, hoists, temporary weatherproofing, or any temporary facility or temporary activity, since these are the sole responsibility of the Contractor.***

#### § 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

#### § 1.1.5 The Drawings

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

***§ 1.1.5.1 The Drawings are diagrammatical and show the general arrangement and extent of the Work; exact locations and arrangements of parts shall be determined as the Work progresses and shall be subject to the Architect's approval.***

- .1 The right is reserved by the Architect to make any reasonable change in location of equipment, ductwork, and piping prior to roughing in without involving additional expense to the Owner.***
- .2 Contractor shall coordinate his Work with the Work of others and shall be responsible for the coordination work, so that interference between mechanical, electrical and other work and architectural and structural work does not occur.***
- .3 Contractor shall furnish and install supports, hangers, offsets, bends, turns, and the like in connection with this Work to avoid interference with work of other Contractors, to conceal Work where required, and to secure necessary clearance and access for operation and maintenance without involving additional expense to the Owner.***

#### § 1.1.6 The Specifications

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

#### § 1.1.7 Instruments of Service

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

#### § 1.1.8 Initial Decision Maker

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

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

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

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

**§1.2.1.1** *The general character of the detail work is shown on the drawings, but minor modifications may be made in large scale details. Where the word "similar" occurs on the drawings it shall be used in its general sense and not as meaning identical, and all details shall be worked out in relation to their location and their connection to other parts of the work.*

- .1 Where on any drawings a portion of the work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to other like portions of the work.***

*.2 Where detail is indicated by starting only, such detail shall be continued throughout the courses or parts in which it occurs and shall also apply to all other similar parts in the work unless otherwise indicated.*

*.3 In case of differences between small and large-scale drawings, the larger scale drawings shall take precedence. Dimensions given shall take precedence over scale measurements.*

*.4 Any discrepancies or questions as to the application of, and interpretations related to 1.2.1.1, shall be referred to the Architect for adjustment before any work affected thereby has been performed.*

*§1.2.1.2 During the course of the work, should any ambiguities or discrepancies be found in the Specifications or on the Drawings; or should there be found any discrepancies between the Drawings and Specifications to which the Contractor has failed to call attention before submitting his bid, then the Architect will interpret the intent of the Drawings and Specifications; and the Contractor hereby agrees to abide by the Architect's interpretation and to carry out the work in accordance with the decision of the Architect.*

*§1.2.1.3 It is expressly stipulated that neither the Drawings nor the Specifications shall take precedence over the other, and it is further stipulated that the Architect may interpret or construe the Drawings and Specifications so as to secure in all cases the result most consistent with the needs and requirements of the work. In the event of such ambiguity or discrepancy subject to any Architect's interpretation, the Contractor shall comply with the more stringent requirement, and supply the better quality or greater quantity of work.*

**§ 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.

*§1.2.2.1 The various materials and products specified in the specifications by name or description are given to establish a standard of quality and of cost for bid purposes. It is not the intent to limit the acceptance to any one material or product specified, but rather to name or describe it as the absolute minimum standard that is desired and acceptable, all determinations as to equality of a proposed product or material shall be at the discretion of the Architect and/or the Owner.*

*.1 A material or product of lesser quality will not be acceptable.*

*.2 Where "Basis of Design" products or manufacturer's names are used, whether or not followed by the words "or approved equal," they shall be subject to approved equals and authorized only by the Architect and/or the Owner.*

*§1.2.2.2 Substitutions lowering performance, quality, method of assembly or installation, or in general not in keeping with details and specifications, will not be permitted. Refer to substitution procedure indicated elsewhere in the Contract Documents.*

*§1.2.2.3 It is understood when a bid for any product or material is submitted, the bidder is aware of specified requirements and all materials or products within his bid are equal or better than such specified items.*

*§1.2.2.4 In addition to the Specifications, it shall be understood that details on Drawings shall become part of the Specification in determining the required "standard of quality."*

*§1.2.2.5 If a conflict occurs between Drawing details and Specifications, bidder during bidding process and/or Contractor shall bring such conflicts to the attention of the Architect in accordance with applicable requirements indicated elsewhere in other sections of Contract Documents.*

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

### **§ 1.3 Capitalization**

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

## § 1.4 Interpretation

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

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

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

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect’s consultants. *Drawings, specifications and other documents, including those in electronic form, prepared by the Architect and the Architect’s consultants are Instruments of Service for use solely with respect to this Project, except that Owner shall be authorized to use any Instruments of Service for future additions or alterations to this Project or for other Projects. The Architect and the Architect’s consultants shall be deemed the authors and owners of their respective Instruments of Service and shall retain all common law, statutory and other reserved rights, including copyrights.*

§ 1.5.3 *The Contractor will be furnished free of charge two (2) sets of signed and sealed drawings and specifications. If more documents are required by the Contractor, the additional documents may be obtained at the cost of \$2.50 per sheet and \$100.00 per specification.*

## § 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.~~

## § 1.9 EXECUTION OF CONTRACT DOCUMENTS

**§ 1.9.1 The Contract Documents shall be signed by the Owner and Contractor. If either the Owner or Contractor or both do not sign all the Contract Documents, the Architect shall identify such unsigned Documents upon request. The Agreement shall be signed in not less than triplicate by the Owner and Contractor.**

**§ 1.9.2 Execution of the Contract by the Contractor is a representation that said Contract Documents are full and complete, are sufficient to have enabled the Contractor to determine the cost of the Work therein to enter into the Contract and that the Contract Documents are sufficient to enable it to construct the Work outlined therein, and otherwise to fulfill all its obligations hereunder, including, but not limited to, Contractor's obligation to construct the Work for an amount not in excess of the Contract Sum on or before the date(s) of Substantial Completion established in the Agreement. The Contractor further acknowledges and declares that it has visited and examined the site, examined all physical, legal, and other conditions affecting the Work and is fully familiar with all of the conditions thereon and thereunder affecting the same. In connection therewith, Contractor specifically represents and warrants to Owner that it has, by careful examination, satisfied itself as to: (1) the nature, location and character of the Project and the site, including, without limitation, the surface and subsurface conditions of the site and all structures and obstructions thereon and thereunder, both natural and man-made, and all surface and subsurface water conditions of the site and the surrounding area; (2) the nature, location, and character of the general area in which the Project is located, including without limitation, its climatic conditions, available labor supply and labor costs, and available equipment supply and equipment costs; and (3) the quality and quantity of all materials, supplies, tools, equipment, labor, and professional services necessary to complete the Work in the manner and within the cost and time frame required by the Contract Documents. In connection with the foregoing, and having carefully examined all Contract Documents, as aforesaid, and having visited the site, the contractor acknowledges and declares that it has no knowledge of any discrepancies, omissions, ambiguities, or conflicts in said Contract Documents and that if it becomes aware of any such discrepancies, omissions, ambiguities, or conflicts, it will promptly notify Owner and Architect of such fact.**

**§ 1.9.3 The Contract Documents include all items necessary for the proper execution and completion of the Work by the Contractor. The Work shall consist of all items specifically included in the Contract Documents as well as all additional items of work which are reasonable inferable from that which is specified in order to complete the Work in accordance with the Contract Documents. The Contract Documents are complementary, and what is required by any one Contract Document shall be as binding as if required by all. Any differences between the requirements of the Drawings and the Specifications or any differences noted within the Drawings themselves or within the Specifications themselves have been referred to the Owner and Architect by Contractor prior to the submission of bids and have been clarified by an Addendum issued to all bidders.**

**If any such differences or conflicts were not called to the Owner's and Architect's attention prior to submission of bids, the Architect shall decide which of the conflicting requirements will govern based upon the most stringent of the requirements, and, subject to the approval of the Owner, the Contractor shall perform the Work at no additional cost and/or time to the Owner in accordance with the Architect's decision. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonable inferable therefrom as being necessary to produce the intended results.**

**1.9.3.1 The term "reasonably inferable" includes work necessary to "provide" work indicated or specified, as defined in section: Definitions and Standards; that is: furnish and install, complete, in place and ready for use.**

**1.9.3.2 Details referenced to portions of the Work shall apply to other like portions of the Work not otherwise detailed.**

**1.9.3.3 The Contractor shall request, from the Architect/Engineer's interpretation of apparent discrepancies, conflicts, or omissions in the Specifications and Drawings. Subcontractors shall forward such requests through the Contractor. Such requests, and the Architect/Engineer's interpretation, shall be in written form; other forms of communications shall be used to expedite resolution of concerns, but will not be binding.**

**§1.9.4 Explanatory notes shall take precedence over conflicting drawn note indications. Large scale drawings shall take precedence over small scale drawings. Figured dimensions shall take precedence over scaled measurements. Should contradictions be found, the Architect shall determine which indication is correct.**

**§1.9.5 When more than one material, brand, or process is specified for a particular item of Work, the choice shall be the Contractor's. Contractor may, after notifying the Architect and Owner, select the one it considers to be the**

*best. Approval by Architect or Owner of materials, suppliers, processes, or Subcontractors does not imply a waiver of any Contract requirements including, without limitation, Contractor's warranty.*

*§1.9.6 In all cases, the details, drawings, and specifications shall be checked with existing conditions and with work in place, and variations, if any, shall be referred by the Contractor to the Architect for adjustment, as the Contractor will be responsible for the fit or work in place.*

*§1.9.7 When a profile, section or other finished condition is shown, furring or other method of obtaining such finished conditions shall be provided. The drawings may show work fully drawn out or only a portion thereof, the remainder being in outline. The drawn-out portions apply to other like or similar places.*

*§1.9.8 Where it is required in the specifications that materials, products, processes, equipment, or the like be installed or applied in accordance with manufacturers' instructions, directions, or specifications, or words to this effect, it shall be construed to mean that said application or installation shall be in strict accordance with printed material concerned for use under conditions similar to those at the job site. Three copies of such instructions shall be furnished to the Architect and his written approval thereof obtained before work is begun.*

*§1.9.9 Any material specified by reference to the number, symbol, or title of a Commercial Standard, Federal Specification, ASTM Specification, trade association standard, or other similar standards, shall comply with the requirements in the latest revision thereof and any amendments or supplements thereto in effect one month prior to the date on which bids are opened and read, except as limited to type, class, or grade, or modified in such reference. The standards referred to, except as modified in the specifications, shall have full force and effect as though printed in the specifications. The Architect will furnish upon request information as to how copies of the standards referred to may be obtained.*

## **ARTICLE 2 OWNER**

### **§ 2.1 General**

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

**§ 2.1.2** The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

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

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

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

~~§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.~~

~~§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as “confidential,” the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose “confidential” information, after seven (7) days’ notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose “confidential” information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.~~

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

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

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

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

§ 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work. ***The furnishing of these surveys and the legal description of the site shall not relieve the Contractor from its duties under the Contract Documents. Neither Owner nor the Architect shall be required to furnish Contractor with any information concerning subsurface characteristics, utilities or conditions of the areas where the Work is to be performed. When the Owner or Architect has made investigations of subsurface characteristics or conditions of the areas where the Work is to be performed, such investigations, if any, were made solely for the purposes of Owner's study and Architect's design. Neither such investigations nor the records thereof are a part of the Contract between Owner and Contractor. To the extent such investigations or the records thereof are made available to Contractor by the Owner or Architect, such information is furnished solely for the convenience of Contractor. Neither Owner nor Architect assumes any responsibility whatsoever in respect of the sufficiency or accuracy of the investigations thus made, the records thereof, or of the interpretations set forth therein or made by the Owner or Architect in its use thereof, and there is no warranty or guaranty, either express or implied, that the conditions indicated by such investigations or records thereof are representative of those existing throughout the areas where the Work is to be performed, or any part thereof, or that unforeseen developments may not occur, or that materials other than or in proportions different from those indicated may not be encountered. The Contractor shall undertake such further investigations and studies as may be necessary or useful to determine subsurface characteristics and conditions. In connection with the foregoing, Contractor shall be solely responsible for locating (and shall locate prior to performing any Work) all utility lines, telephone company lines and cables, sewer lines, water pipes, gas lines, electrical lines, including, without limitation, all buried pipelines and buried telephone cables and shall perform the Work in such a manner so as to avoid damaging any such lines, cables, pipes, and pipelines.***

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

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2 ***and 1.5.3.***

## § 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, ***or fails or refuses to provide a sufficient amount of properly supervised and coordinated labor, materials, or equipment so as to be able to complete the Work within the Contract Time or fails to remove and discharge (within ten days) any lien filed upon Owner's property by anyone claiming by, through, or under Contractor, or disregards the instructions of Architect or Owner when based on the requirements of 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.~~

***§ 2.4.1 The Owner shall have the authority to immediately correct, service, repair, replace or otherwise make operational any component of their facilities including equipment if in the sole discretion of the owner the damaged component is a threat to education, safety or security. The Owner is obligated to put the Contractor on notice of the issue threatening education, safety or security, and their intent to remedy immediately with other resources and to back charge the contractor for the cost of said service, but there are no notice provisions required for the corrective actions necessary to protect the School District.***

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

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ~~ten-day~~ ***seven-day*** period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor ***and/or his/her Surety*** 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 The Owner shall have the authority to immediately correct, service, repair, replace or otherwise make operational any component of their facilities including equipment if in the sole discretion of the owner the damaged component is a threat to education, safety or security. The Owner is obligated to put the Contractor on notice of the issue threatening education, safety or security, and their intent to remedy immediately with other resources and to backcharge the contractor for the cost of said service, but there are no notice provisions required for the corrective actions necessary to protect the School District.***

## 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. ***The Term "Contractor" shall mean the respective Prime Contract person or entity identified as such in the Owner Contractor Agreement, for each respective Prime Construction Contract, as responsible for the supervisory control over allocation, coordination of all Subcontractors or trades, performance and completion of all portions of the Work, including cooperation with those doing portions of the Work under Separate Contract with the Owner.***

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

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



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

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

- .1 If the Contractor requires clarification of the intent of the Contract Documents after award, the Contractor shall be responsible to issue a type written request for information (RFI) to the Architect utilizing the Architect's sample form via acceptable methods set forth in Article 4.2.*
- .2 All RFI's shall clearly identify the Architect's project number, the construction company's name, author's name, date issued, address, phone numbers, facsimile number and the addressee of the communication.*

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents. ***In addition to and not in derogation of Contractor's duties under Paragraphs 1.9.2 and 1.9.3, the Contractor shall carefully study and compare the Contract Documents with each other and shall at once report to the Architect errors, inconsistencies or omissions discovered. The Contractor shall not be liable to the Owner or Architect for damage resulting from errors, inconsistencies or omissions in the Contract Documents that could not have been discovered by a prudent and experienced contractor in advance and that are not in the nature of items described in and intended to be covered in Paragraphs 1.9.2 and 1.9., unless the Contractor recognized or reasonably should have recognized such error, inconsistency or omission and failed to report it to the Architect. If the Contractor performs any construction activity involving an error, inconsistency or omission in the Contract Documents that the Contractor recognized or reasonably should have recognized without such notice to the Architect, the Contractor shall assume complete responsibility for such performance and shall bear the full amount of the attributable costs for correction.***

§ 3.2.2.1 *If any errors, inconsistencies, or omissions in Contract Documents are recognized or reasonably should have been recognized by the Contractor, any member of its organization, or any of its Subcontractors, the Contractor shall be responsible for notifying the Architect in writing of such error, inconsistency, or omission before proceeding with the Work. The Architect will take such notice under advisement and within a reasonable time commensurate with job progress render a decision. If Contractor fails to give such notice and proceeds with such Work, it shall correct any such errors, inconsistencies, or omissions at no additional cost to the Owner.*

### § 3.2.2.2 Conditions Precedent – Notice

- .1 Notice of any alleged Conflict that have been reasonably identified prior to submitting a Bid shall be provided to the Architect immediately in order that the Architect in its discretion, may issue an Addendum.*
- .2 A Bidder's failure to do so constitutes an absolute waiver of any Conflict that may thereafter be asserted with respect thereto, and shall bar any recovery regarding such Conflict.*
- .3 If any errors, inconsistencies or omissions appear in the drawings, specifications or other Contract Documents, which should reasonably have been discovered and concerning which interpretation had not been obtained from the Architect during the Bidding Period, the Contractor shall within ten (10) days after receiving written "Notice of Award" notify the Architect in writing of such error, inconsistency or omission. In the event the Contractor fails to give such notice, Contractor and its Surety may be required to indemnify Owner for the costs of any such errors, inconsistencies or omissions and the cost of rectifying same including attorney's fees. Interpretation of this procedure after the ten-day period will be made by the Architect and his decision will be final. By Submission of a bid, the Contractor acknowledges that the Contract Documents are full and complete, are sufficient to have enabled it to determine the cost of the Work and that the Drawings, the Specifications and all addenda are sufficient to enable the Contractor to construct the Work outlined therein in accordance with applicable laws,*

*statutes, ordinances, building codes and regulations, and otherwise to fulfill all of its obligations under the Contract Documents.*

- .4 Contractor acknowledges, except as to any reported error, inconsistencies or omissions, and to concealed or unknown conditions defined in elsewhere, by executing the Agreement, the Contractor represents the following:*

- .1 The Contract Documents are sufficiently complete and detailed for the Contractor to perform the Work and comply with all requirements of the Contract Documents.*
- .2 The Work required by the Contract Documents, including, without limitation, all construction details, construction means, methods, procedures, and techniques necessary to perform the Work, use of materials, selection of equipment, and requirements of products by 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 The Contractor has read, understands and accepts the Contract Documents and its bid was made in accordance with them.*
- .4 The Contract Sum is based upon the products, materials, systems and equipment required by the Contract Documents without exception. Where the Contract Documents list one or more manufacturer or brand name products, materials, systems and equipment as acceptable, the Contract sum is, in each instance, based upon one of the listed manufacturers or brand name products, materials, systems, and equipment, or, if the contract Sum is based upon the substitution of an "or equal" manufacturer or product, material, system or equipment, the Contractor has in each such instance sought and received the Architect's approval for the substitution either:
  - .1 prior to the Bid in accordance Architect's Addenda;*
  - .2 after commencement of the Work, under in conformance with substitution procedure elsewhere in the Contract Documents.**
- .5 The Contract Sum is firm and all inclusive, and no escalation is contemplated for any reason whatsoever.
  - .1 The Contract Sum includes any and all costs associated with completion by those dates and times, including any and all costs associated with out-of-sequence work, come-back work, stand-by work, stacking of trades, coordination with the schedules and work of separate Contractors, allowing sufficient time, work and storage areas, and site access for separate Contractors to timely progress and complete their work, overtime, expediting and acceleration that may be required to complete the work by those dates and times.*
  - .2 The Contractor has reviewed the completion dates and times, and Milestone Dates set forth in the Contract Documents, agrees that such dates and times are reasonable and commits to achieve them.**
- .6 The Contractor shall satisfy itself as to the accuracy of all dimensions and locations. In all cases of interconnection of its work with existing or other work, it shall verify at the site, all dimensions relating to such existing or other work. Any errors due to the Contractor's failure to verify all such locations or dimensions shall be promptly rectified by the Contractor without any additional cost to the Owner.*

*Deviations from the construction documents must be noted by the Prime Contractor at the time of shop drawing submission. Failure to do so will result in the implication of the above Sections 3.2, 3.2.1, 3.2.2, 3.2.2.1 and 3.2.2.2.*

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

**§ 3.2.4** If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or

3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor **and / or his Surety** 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, **unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect**, the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

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

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

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

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

**§ 3.3.4** *The Contractor, when requested by the Architect, shall meet with representative of the Architect at all times and furnish all information requested; he shall allow the Architect to inspect the work at all times. Neither the Owner, nor the Architect shall be liable to the Contractor for extra compensation or damages for interference or delays on account of any such meetings, information, or inspections so requested or other acts of the Architect done in good faith and within the scope of their employment by the Owner. In addition, the Contractor is entrusted with the oversight, management control, and general direction of this project to ensure that all contract completion dates are met. In the event that there are any delays caused to any subcontractor on this project, liability shall lie with the Contractor and not with the Owner.*

**§ 3.3.5** *The Contractor has the responsibility to ensure that all material suppliers and Subcontractors, their agents, and employees adhere to the Contract Documents, and that they order materials on time, taking into account the current market and delivery conditions and that they provide materials on time. The Contractor shall coordinate its Work with that of all others on the Project including deliveries, storage, installations, and construction utilities. The Contractor shall be responsible for the space requirements, locations, and routing of its equipment. In areas and locations where the proper and most effective space requirements, locations and routing cannot be made as indicated, the Contractor shall meet with all others involved, before installation, to plan the most effective and efficient method of overall installation.*

**§ 3.3.6** *The Contractor shall establish and maintain bench marks and all other grades, lines, and levels necessary for the Work, report errors or inconsistencies to the Architect before commencing Work and review the placement of the building(s) and permanent facilities on the site with the Owner and Architect after all lines are staked out and before foundation Work is started. Contractor shall provide access to the Work for the Owner, the Architect, other persons designated by Owner, and governmental inspectors. Any encroachments made by Contractor or its Subcontractor (of any tier) on adjacent properties due to construction as revealed by an improvement survey, except for encroachments arising from errors or omissions not reasonably discoverable by Contractor in the Contract Documents, shall be the sole responsibility of the Contractor, and Contractor shall correct such encroachments within thirty (30) days of the improvement survey (or as soon thereafter as reasonably possible), at Contractor's sole cost and expense, either by the removal of the encroachment (and subsequent reconstruction on the Project site) or agreement with the adjacent property owner(s) (in form and*

substance satisfactory to Owner in its sole discretion) allowing the encroachments to remain.

§ 3.3.7 Coordination:

1. *The Lump Sum Single Prime Contractor "The Contractor" is the sole responsible party for the coordination of the entire project.*
2. *The Contractor shall be responsible to coordinate and expedite the total construction process and all of its parts. The Owner relies upon the organization, management, skill, cooperation and efficiency of the Contractor to supervise, direct, control and manage the work and to coordinate and expedite the efforts of the other prime contractors and subcontractors so as to deliver the work conforming to the contract within the scheduled time. The Contractor is responsible for proper sequence and coordination. It shall determine the location of work and resolve conflicts amongst Contractors.*
3. *The Contractor shall provide a qualified full-time staff member or members to manage the project. THIS PROJECT MANAGER shall coordinate, organize and manage the project from the contractor's main office and oversee the shop drawing process signing off for quality assurance and conformance with the Contract Documents on each shop drawing. The project manager shall be subject to the approval of the Owner and Architect who at all times have the right to require the contractor to replace this project manager if they fail to perform.*

*The project manager shall conduct an onsite meeting at least once a week with the construction superintendent and all other prime and/or subcontractors in attendance to coordinate the project and review the schedule. The Architect may attend but is not responsible for organizing or taking minutes. The project manager shall provide a meeting agenda and issue minutes within four (4) working days of each meeting.*

4. *The Contractor shall provide a qualified full-time staff member or members to manage the project on site. THIS CONSTRUCTION SUPERINTENDENT shall coordinate, organize and manage the project from the on site and oversee their own work and the work of their sub-contractors. Should the contractor be responsible for multiple projects at different sites, or multiple locations on one large site, then the contractor shall provide a separate qualified superintendent for each of the projects or locations. This determination shall be made by and subject to the approval of the Owner and Architect who at all times may require additional manpower. The superintendent shall be responsible for onsite safety, quality assurance, conformance with the Contract Documents and perform coordination with all on site construction personnel and/or subcontractors. The construction superintendent shall be subject to the approval of the Owner and Architect who at all times have the right to require the contractor to replace this construction superintendent if they fail to perform.*
5. *The subcontractors shall also have a designated superintendent and/or foreman who will at all times be subject to the approval of the Owner and Architect. The Owner and Architect reserves the right to require the contractor to replace the superintendent and/or foreman if, in the opinion of the Owner and Architect, the superintendent and/or foreman is not performing satisfactorily.*
6. *Each subcontractor shall coordinate his activities with the activities of other contractors.*
7. *All questions pertaining to the work are to be made to the A/E sufficiently in (via an RFI Form) advance of construction to permit comparisons investigation or references to drawings and shop drawings as necessary.*
8. *The Contractor is required to submit a site logistics plan coordinating all Owner functions with the access and safety of the job site.*
9. *The Contractor is required to coordinate all the inspection and material testing to meet the contract documents specifications.*
10. *The Contractor has full and sole responsibility for construction methods and implementation of a "quality control system" to insure coordination.*
11. *The Contractor is responsible for field verification of all dimensions/measurements for the coordination of materials and trades. Check field dimensions, clearances, relationships to available space, and anchors.*
12. *The Contractor shall make all necessary arrangements to conduct work so that all parts shall be carried on harmoniously and simultaneously or sequentially, so as components or increments of the same shall not interfere or retard the progress of others.*
13. *Minor changes in locations of equipment, parts, etc. due to field conditions shall be made, if so directed, at no additional cost.*

14. *The Contractor shall coordinate the delivery, unloading, movement, relocation, storage and protection of all materials.*
15. *The Contractor shall examine the drawings and dimensions and is responsible for satisfactory joining and fitting of all parts of the work.*
16. *Accurate dimensions, sleeved and opening drawings are to be submitted prior to placement in the field.*
17. *The Contractor is responsible for any omissions of the subcontractors and is required to provide a complete operating facility.*
18. *The Architect /Engineer and Owner shall assist in resolution of any coordination items.*

### **§ 3.4 Labor and Materials**

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

**§ 3.4.2** Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive *and the provisions of Section 01300 of the Contract Specifications.*

**§ 3.4.2.1 STANDARD OF QUALITY:** *The various materials and products specified in the specifications by name or description are given to establish a standard of quality and of cost for bid purposes.*

*.1 It is not the intent to limit the Contractor to any one material or product specified but rather to described as the minimum standard.*

*.2 When proprietary names are used as the “Basis of Design”, for specified products or equipment, they shall be followed by the words “or approved equal in quality necessary to meet the specifications,” unless otherwise indicated elsewhere in the Contract Documents.*

**§ 3.4.2.2** *The Architect will evaluate alternatives and substitutions and shall be the sole judge of whether the alternatives, (substitutions), are acceptable or not.*

*.1 The burden of proving the alternatives, (substitutions), are equal, or better, to the specified product is that of the Contractor.*

*.2 Contractor shall submit request for substitution in accordance with substitution procedures indicated elsewhere in the Contract Documents.*

*.3 Any alternative names or products which do not meet the specifications will not be accepted.*

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

**§ 3.4.4** *The Contractor must provide suitable storage facilities at the site for the proper protection and safe storage of his materials. Such storage facilities must be approved in advance in writing by the Architect.*

**§ 3.4.5** *All materials delivered to the premises which are to form a part of the work are to be considered the property of the Owner and must not be removed without the Architect’s consent; but the Contractor shall remove all surplus materials upon completion of each phase of the work and as directed by the Architect.*

**§ 3.4.6** *When any room is used as a shop, storeroom, etc., during the progress of the work, the Contractor making use of the space will be responsible for any repairs, patching, or cleaning arising from such use. Prior approval of Architect for use of such areas is mandatory.*

**§ 3.4.7** *Not later than seven (7) days from the Notice to Proceed, the Contractor shall provide a list showing the name of the manufacturer proposed to be used for each of the products identified in the Specifications Divisions 1-16, and if applicable, the installing Subcontractor’s name.*

**§ 3.4.8** *The Contractor will be held to be to be thoroughly familiar with all conditions affecting labor in the locale of the Project, including, but not limited to, trade jurisdictions and agreements, incentive and premium*

*time, pay, procurement, living and commuting conditions. Contractor shall assume responsibility for costs resulting from his failure to verify conditions affecting his labor.*

**§ 3.4.9** *Contractor shall be responsible for labor peace on the Project and shall at all times make its best efforts and judgment as an experienced contractor to adopt and implement policies and practices designed to avoid work stoppages, slowdowns, disputes, or strikes where reasonably possible and practical under the circumstances, and shall at all times maintain Project-wide labor harmony. Except as specifically provided in Subparagraph 8.3.1, Contractor shall be liable to Owner for all damages suffered by Owner occurring as a result of work stoppages, slowdowns, disputes, or strikes.*

### **§ 3.5 Warranty**

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

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

**§ 3.5.2** *The Contractor represents that all manufacturer and supplier warranties shall run directly to or be specifically assignable to the Owner. The Contractor warrants that all portions of the work that will be covered by a manufacturer's or supplier's warranty shall be performed in such a manner so as to preserve all rights under such warranties. The Contractor hereby assigns to the Owner effective upon the termination of this contract all manufacturer's and supplier's warranties relating to the Work, and the Contractor shall upon request of the Owner, execute any document reasonably requested by Owner to effectuate such assignment. If the Owner attempts to enforce a claim based upon a manufacturer's or suppliers warranty and such manufacturer or supplier refuses to honor such warranty based in whole or in part on a claim of defective installation by the Contractor, the Contractor shall be responsible for any resulting loss or damages incurred by the Owner as a result of the manufacturer's or supplier's refusal to honor such warranty. The Contractor's obligations under this Subparagraph 3.5.2 shall survive the expiration or earlier termination of the Contract. The warranty period for all work of each Contractor shall be two (2) years from the date of final inspection and acceptance by the Owner unless otherwise specified.*

### **§ 3.6 Taxes**

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

**§ 3.6.1** *The owner is exempt from all taxes including Federal Excise Tax, fuel tax, transportation taxes and State Sales or Use Tax.*

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

**§ 3.7.1** *Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded. The Contractor shall be required to secure permits or government approvals necessary for the proper execution and completion of the work. The Contractor shall obtain business licenses required by the State, County and/or City/Township and shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the work.*

- .1 *It shall be the obligation of the Contractor to review the Contract Documents and to determine and to notify the Owner and Architect of any discrepancy between building codes and regulations of which the Contractor has knowledge or should be reasonably able to determine.*
- .2 *The Contractor shall not violate any zoning, setback or other requirements of applicable laws, codes and ordinances, building codes, rules or regulations, the Contractor promptly shall notify the Architect, in writing, and necessary changes shall be accomplished by appropriate Modification.*

**3.7.1.1** *The required Building Permit or Permits shall be secured by the Contractor for his trade; or by the Prime Contractor in charge of the Work when the Contract combines more than one trade under a Single Contract.*

§ 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.~~ **all costs attributable to the correction thereof or related thereto, including all fines and penalties.**

**§ 3.7.4 Concealed or Unknown Conditions**

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than ~~14 days~~ **three (3) days** after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

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

**§ 3.8 Allowances (See Specification "Section 012100 – Allowances")**

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

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 ~~Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and~~
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 ~~and (2) changes in Contractor's costs under Section 3.8.2.2.~~

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

### § 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a **full time** competent superintendent and necessary assistants **acceptable to the Owner and Architect** who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

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

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

*§ 3.9.4 A superintendent for the contractor shall be required for the overall project and a Foreman shall be at the project site. The number of necessary Assistants to the superintendent shall be the areas where work is in progress shall be adequately supervised by the Contractor's superintendent or one of his assistants. If, in the Architect or Engineer's opinion, the quality or progress of the work are adversely affected by lack of adequate supervision, the Contractor shall be required to increase the number of supervisory personnel at no increase in the Contract sum.*

### § 3.10 Contractor's Construction and Submittal Schedules (See Specification Section 013100, "Contractor's Construction Schedules.")

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project. ***The schedule which is prepared by the Contractor shall indicate the proposed starting and completion date for the various subdivisions of the Work as well as the totality of the Work. The schedule shall be updated every thirty (30) days and must be submitted to the Architect with Contractor's Applications for Payment. If the schedule is not submitted with the payment application, no payment will be processed. Each schedule shall contain a comparison of actual progress with the estimated progress for such point in time started in the original schedule. If any schedule submitted sets forth a date for Substantial Completion for the Work or any phase of the Work beyond the Date(s) of Substantial Completion established in the Contract (as the same may be extended as provided in the Contract Documents), then Contractor shall submit to Architect and Owner for their review and approval a description of the means and methods which Contractor intends to employ to expedite the progress of the Work to ensure timely completion of the various phases of the Work as well as the totality of the Work. To ensure such timely completion, Contractor shall take all necessary action including, without limitation, increasing the number of personnel and labor on the Project and implementing overtime and double shifts. In that event, Contractor shall not be entitled to an adjustment in the Contract Sum or the schedule.***

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



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

**§ 3.10.4 Schedules shall comply with the requirements of the Division 1 “Section 013200 – Construction Progress Documentation.”**

**§ 3.11 Documents and Samples at the Site**

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed. **See Specification “Section 013300 – Submittal Procedures,” and “Section 017700 – Closeout Procedures,” for specific details and requirements.**

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

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

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

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

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

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors. **Submittals which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor may be returned by the Architect without action.**

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

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

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

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

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

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

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

§ 3.12.11 *Detailed requirements are specified in Specification "Section 013300 – Submittal Procedures."*

§ 3.12.12 *All shop drawings are to include manufacturer's data. All shop drawings and samples are to be submitted by the Contractor to the Architect for review. Each sheet of the shop drawings shall identify the project, contractor, subcontractor, and fabricator or manufacturer and the date of the drawings. All shop drawings shall be numbered in consecutive sequence and each sheet shall indicate the total number of sheets in the set.*

§ 3.12.13 *Substitutions: All substitutions or deviations from plans and specification must be clearly noted as such on all shop drawings. Contractor shall identify, coordinate and pay for any additional requirements as a result of substitutions, deviations, etc., including necessary change orders. In addition, substitution submittals shall be made no later than 30 days after Notice to Proceed in order to provide time for comparison review. All submittals after 30 days shall be in strict accordance with the basis of design / specified products.*

### § 3.13 Use of Site

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

§ 3.13.1 *Location and weights of all equipment and materials and the Contractor intends to place on the slab shall be submitted to the Architect for review.*

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

§ 3.13.3 *The Contractor and any entity for whom the Contractor is responsible shall not erect any sign on the Project site without the prior written consent of the Owner.*

**§ 3.13.4 Contractor shall ensure 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 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.**

**§ 3.13.5 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 its 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 such rules and regulations to be impracticable, setting forth the problems of such and suggest alternatives through which the same results can be achieved. The Owner may, in the Owner's sole discretion, adopt such suggestions, develop new alternatives or require compliance with the existing requirement 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.**

**§3.13.6 The Contractor shall provide a temporary construction fence weather shown on the contract documents or not as required to separate the area or areas under construction from the Owners area or areas used by the public. The temporary fencing shall be approved by the Owner prior to installation. The fence shall be 6' high and have vinyl privacy fabric obstructing views into the construction area.**

**§ 3.14 Cutting and Patching (See Specification "Section 024119 – Selective Demolition")**

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

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

**§ 3.15 Cleaning Up**

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

**§ 3.15.2** If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

**§ 3.15.3 The Contractor shall perform all daily clean up and removal of debris from the site including that of his subcontractors. The Contractor shall maintain an adequate supply of laborers to accomplish daily clean up and removal of debris from the site and work areas. No debris will be allowed to accumulate in or around the building including masonry debris. The building site must be maintained free of all litter, dirt, dust and debris on a daily basis. The Owner's Team may stop all work and require all personnel on site to clean up. No accumulation of flammable material is permitted. Prior to installation of finishes the floors will be swept or vacuumed and kept free of dust and dirt until turned over to the Owner.**

**§ 3.15.4 Cleaning and debris removal may be considered a safety concern by judgment of the Owner or his agents and as such the work may be stopped to provide time and labor for immediate clean up.**

**§ 3.15.5 Final Clean-Up:** *The Contractor has the responsibility for the final clean-up and policing of the entire site after other contractors have removed their own waste materials, rubbish, equipment, tools and plant. In addition, thereto, the General Construction Contractor shall have a professional cleaning company perform the following immediately prior to the Architect's inspection for Substantial Completion:*

- .1 Removal of all manufacturer's temporary labels from materials, equipment and fixtures.*
- .2 Removal of all stains from glass and mirrors; wash, polish, inside and outside.*
- .3 Removal of marks, stains, finger prints, other soil, dust, dirt, from painted, decorated, or stained woodwork, plaster or plasterboard, metal, acoustic tile, and equipment surfaces.*
- .4 Final site clean-up shall extend beyond the Contract Limit Lines as reasonably required to insure the complete removal of all construction debris from the entire site, including staging areas.*

### **§ 3.16 Access to Work**

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

**§ 3.16.1** *The Contractor shall promptly notify the Architect/Engineer and Owner of the presence of hazardous conditions at the site, including the start of hazardous operations or the discovery or exposure of hazardous substances.*

**§ 3.16.2** *Contractor shall be responsible for snow plowing and snow removal as required to maintain access/egress to construction area.*

**§ 3.16.3** *Contractor shall keep only necessary equipment on site and shall cooperate with the Owner regarding location of stored material.*

### **§ 3.17 Royalties, Patents and Copyrights**

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

### **§ 3.18 Indemnification**

**§ 3.18.1** To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

**§3.18.1.1** *Contractor, for itself, its successors and assigns, agrees to indemnify and save Owner, the individual members (past, present and future), its successors, assigns, employees, agent, Architects, Engineers, harmless from, and against any and all claims, demands, damages, actions or causes of action by any party, together with any and all losses, costs or expenses in connection therewith or related thereto, including, but not limited to, attorney fees and costs of suit, for bodily injuries, death or property damage arising in or in any manner growing out of the work performed, or to be performed under this Contract. Contractor and its successors and assigns agree to indemnify the Owner, its individual members (past, present and future), its successors, assigns, employees, agents, Architects, and Engineers against all fines, penalties or losses incurred for, including, but not limited to, attorney fees and costs of suit, or by reason of the violation by Contractor in the performance of this Contract, or any ordinance, regulation, rule of law of any political subdivision or duly constituted public*

authority. Without limiting the foregoing, the Contractor, at the request of Owner, its individual members (past and present), its successors, assigns, employees, agents, Architects, or Engineers, agrees to defend at the Contractor's expense any suit or proceeding brought against Owner, its individual members (past, present and future), its successors, assigns, employees, agents, Architect, Engineers due to, or arising out of the work performed by the Contractor.

**§3.18.1.2** *The Contractor assumes the entire risk, responsibility, and liability for any and all damage or injury of every kind and nature whatsoever (including death resulting therefrom) to all persons, whether employees of the Contractor or otherwise, and to all property (including the Work itself) caused by, resulting from, arising out of or occurring in connection with the execution of the Work, or in preparation for the Work, or any extension, modification, or amendment to the Work by the Change Order or otherwise. To the fullest extent permitted by law, the Contractor and its Surety shall indemnify and save harmless the Owner, the Architect, the Architect's consultants, and the respective agents and employees of any of them (herein collectively called the Indemnitees) from and against any and all liability, loss, damages, interest, judgments, and liens growing out of, and any and all costs and expenses (including, but not limited to, counsel fees and disbursements) arising out of, relating to or incurred in connection with the Work including, any and all claims, demands, suits, actions, or proceedings which may be made or brought against any of the Indemnitees for or in relation to any breach of the Contract for Construction or any violation of the laws, statutes, ordinances, rules, regulations, or executive orders relating to or in any way affecting the performance or breach of the Contract for Construction, whether or not such injuries to persons or damages to property are due or claimed to be due, in whole or in part, to any negligence of the Contractor or its employees, agents, subcontractors, or materialmen, excepting only such injuries and/or damages as are the result of the sole gross negligence of the Owner or Architect.*

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

### **§3.19 Re-design**

**§3.19.1** *If the Contractor makes, or causes to be made, due to approval of substitute equipment or otherwise, any substantial change in the form, type, system and details of construction from those shown on the Drawings, he shall pay for all costs arising from such changes. The Contractor shall pay all Legal and Architectural and Engineering fees required to check the adequacy of such changes. Any changes or departures from the construction and details shown shall be made only after written approval from the Architect.*

**§3.19.2** *The Contractor represents and warrants the following to the Owner (in addition to the other representations and warranties contained in the Contract Documents), as an inducement to the Owner to execute the Owner-Contractor Agreement, which representations and warranties shall survive the execution and delivery of the Owner-Contractor Agreement and the final completion of the Work*

- .1 that he/she is authorized to do business in the State, County, and / or City where construction will take place at the Project and is properly licensed by all necessary governmental and public authorities having jurisdiction over him/her and over the Work and the site of the Project;*
- .2 that he/she is familiar with all Federal, State, Municipal and Department laws, ordinances and regulations, which may in any way affect the work of those employed herein, including but not limited to any special acts relating to the work or to the project of which it is a part;*
- .3 that such temporary and permanent work required by the Contract Documents as is to be done by him/her, can be satisfactorily constructed and used for the purposes for which it is intended;*
- .4 that he/she is familiar with local trade jurisdictional practices at the site of the project;*
- .5 that he/she has carefully examined the plans; the specifications and the site of the work, and that from his own investigations, he/she has satisfied himself/herself as to the nature and location of the work, the character, quality and quantity of the surface and subsurface materials likely to be encountered, the character of equipment and other facilities needed for the performance of the work, and the general local conditions, and all other materials which may in any way affect the work or his/her performance;*
- .6 that he/she has determined what local ordinances, if any, will affect his work. He/She has checked for any County, City, Borough, or Township rules or regulations applicable to the area in which the Project is being constructed and in addition, for any rules or regulations of other*

*organizations having jurisdiction, such as chambers-of-commerce, planning commission, industries, or utility companies who have jurisdiction over property on which the Work will be performed. Any costs of compliance with local controls are included in the prices bid, even if documents of such local controlling agencies are not listed specifically in the Contract Documents.*

## **ARTICLE 4 ARCHITECT**

### **§ 4.1 General**

**§ 4.1.1** The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement. *The term "Architect" means the Architect or the Architect's authorized representative.*

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

**§ 4.1.3** *If the employment of the Architect is terminated, the Owner shall employ a successor architect whose status under the Contract Documents shall be that of the Architect.*

### **§ 4.2 Administration of the Contract**

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

**§ 4.2.2** The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

**§ 4.2.3** On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

### **§ 4.2.4 Communications**

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

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

**§ 4.2.6** The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections **13.4.1**, 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

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

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

~~§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.~~

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

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

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

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

*§4.2.15 Reference in the technical provisions of the specifications to standard specifications and test methods, including those of the American Society for Testing and Materials, the American Iron and Steel Institute, the American National Standards Institute, the American Society of Mechanical Engineers, the American Society of Heating, Refrigeration and Air Conditioning Engineers, the Factory Mutual System, the National Fire Protection Association, Federal Specifications, and other similar nationally recognized technical societies and agencies shall refer to the editions and revisions current with the date of the Contract Documents.*

*§4.2.16 The Architect's decision with respect to proposed substitutions of material or equipment specified by trade name shall be final. The Architect reserves the right to waive specifications and to accept a proposed substitution which in his opinion is superior to the material or product specified, or to limit the specification to the product specified.*

***§4.2.17 Approval of substitutions shall not relieve the Contractor of responsibility for adequate fulfillment of all the various parts of the work, nor from specified guarantees and maintenance. Modification of adjacent or connecting work required due to any substitution approval shall be provided as part of the substitution.***

***§4.2.18 Insofar as practicable, except as otherwise specified or shown, the material or product of one manufacturer shall be used throughout the work for each specified purpose.***

***§4.2.19 Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in strict accordance with the manufacturer's directions. Should such directions conflict with the Specifications, the Contractor shall request clarification from the Architect before proceeding.***

## **ARTICLE 5 SUBCONTRACTORS**

### **§ 5.1 Definitions**

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

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

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

**§ 5.2.1** ~~Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14 day period shall constitute notice of no reasonable objection. *Identification of Subcontractors required by N.J.S.A. 18A:18A-18 shall be provided with the bid specifications in accordance with that statute. The names of all subcontractors and material suppliers not covered by N.J.S.A. 18A:18A-18 shall be submitted to the Architect for approval not later than seven (7) days after the date of the notice to proceed. The list of proposed subcontractors shall include a description of the materials and equipment each proposes to furnish and install in the work. The description shall be in sufficient detail to allow the Architect to determine general conformance to Contract requirements. Approval of the submittals required under the Article shall not relieve the Contractor from conformance to the Contract Requirements*~~

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

***5.2.2.1 The Architect will promptly reply in writing to the Contractor stating whether the Owner or Architect, after due investigation, has reasonable objection to any such proposal. If adequate data on any proposed manufacturer or installer is not available, the Architect may state that action will be deferred until the Contractor provides further data. Failure of the Owner or Architect to reply promptly shall not constitute a waiver of any of the requirements of the Contract Documents, and all products furnished by the listed manufacturer must conform to such requirements.***

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



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

### § 5.3 Subcontractual Relations

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

*§ 5.3.1 The Contractor shall obligate each subcontractor specifically to comply with the New Jersey Plan of Affirmative Action to avoid discriminatory practice in employment.*

*§ 5.3.2 The Contractor shall obligate each subcontractor to comply with the applicable prevailing wage schedule of the Department of Labor of the State of New Jersey.*

*§ 5.3.3 The Contractor shall obligate each Sub-Contractor to comply with the Public Works (the Public Works Contractor Registration Act of the State of New Jersey).*

### § 5.4 Contingent Assignment of Subcontracts

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

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

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

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

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

## ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

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

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term “Contractor” in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

~~§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner’s own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.~~ **THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL WORK. All trades have a mutual obligation to coordinate their work with the other trades and cooperate as necessary with the Contractor and the Construction schedule – to complete the work as required by the School District. The Architect will provide assistance to the Contractor for coordination between their work and the Owner . The Contractor is required to have their superintendent or foreman on site at all times when their work or that of their subs is in progress**

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

## § 6.2 Mutual Responsibility

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

§ 6.2.2 If part of the Contractor’s Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor’s Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner’s or Separate Contractor’s completed or partially completed construction is fit and proper to receive the Contractor’s Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent. ***Should the Contractor be damaged by any other separate Contractor on the work by reason of such other Contractor’s failure to perform properly his Contract with the Owner, no action will lie against the Owner and the Owner shall have no liability therefore, but the Contractor may assert his claim for damage against such separate Contractor as a third party beneficiary under the Contract between such other Contractor and the Owner.***

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

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5 ***or to other completed or partially completed construction or property on the site or to property of any adjoining Owner or other party.***

***6.2.4.1 Should the Contractor cause damage to the work or property of any separate Contractor on the Project, the Contractor shall, upon due notice, settle with such other Contractor by agreement or Court of Law if he will so settle. If such separate Contractor sues the Owner, or the Architect or initiates a Court of Law proceeding on account of any damage alleged to have been so sustained, the Contractor agrees that he will hold the Owner or Architects harmless against any such suit, and that he will reimburse to the Owner or Architect, as the case may be, the cost of defending such suit, including reasonable attorney’s fee and if judgment against Owner or Architect arises therefrom, the Contractor shall pay all judgment cost incurred by the Owner or Architect.***

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

### § 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible *as the Owner determines to be just, based on the recommendation of the Architect.*

## 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 A field directive or field order shall not be recognized as having any impact upon the Contract Sum or the Contract Time and the Contractor shall have no claim therefor unless it shall, prior to complying with same and in no event no later than five (5) working days from the date such direction or order was given, submit to the Owner's Team its change proposal for the Owner's approval.*

*7.1.1.2 When submitting its change proposal, the Contractor shall include and set forth in clear and precise detail breakdowns of labor and materials for all trades involved and the estimated impact on the construction schedule including a specific number of days for a time extension. If the Change Order Request does not provide an additional time request, the Contractor shall not be entitled to an extension of time. The Contractor shall furnish spread sheets from which the breakdowns were prepared, plus spread sheets if requested of any Subcontractors. The Contractor may not claim additional time at a later date and shall remove any language to that effect from his/her Change Order Request.*

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone *in accordance with Paragraph 7.4.*

*§ 7.1.2.1 Neither this Contract nor the Work to be performed hereunder can be changed by oral agreement. No course of conduct or dealings between the parties, nor express or implied acceptance of alterations or additions to the Work and no claims that the Owner has been unjustly enriched by any alteration or addition to the Work, whether there is, in fact, any unjust enrichment to the Work, shall be the basis for any alleged implied agreement by the Owner to the change, any alleged waiver of the Owner's right under this Contract or any increase in any amounts due under the Contract or any or a change in any time period provided for in the Contract Documents.*

§ 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 A directive or order from the Owner or the Architect, other than a Change Order, a Construction Change Directive or any Order for a minor change pursuant to this Article 7, shall not be recognized as having any impact on the Contract Sum or the Contract Time and the Contractor shall have no claim therefore. If the Contractor believes that a directive or order would require it to perform work not required by the Contract Documents, the Contractor shall so inform the Owner and Architect in writing prior to complying with the same and in no event, any later than five (5) working days from the day such direction or order was given, and shall submit to the Owner and Architect for the Owner's and Architect's approval its change proposal.*

### § 7.2 Change Orders

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

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

**§ 7.2.2** *Methods used in determining adjustments to the Contract Sum include those listed in Subparagraph 7.3.4. The total for overhead and profit shall NOT exceed 15%.*

**§ 7.2.3** *Any change in work authorized in writing by the Owner and Architect that will require a change in the cost of the work, whether an additive or deductive change in cost, shall show a complete cost breakdown of labor, material, appropriate overhead and profit (15% maximum) and contract time.*

**§ 7.2.4** *When a Change Order involves both additions and deletions in material, the net quantity is to be determined and the 15% overhead and profit is to be applied to the net quantity.*

**§ 7.2.5** *When any change in the Work, regardless of the reason therefore, requires or is alleged to require an adjustment in Contract Time, such request for time adjustment shall be submitted by the Contractor as part of the change proposal. Any Change Order approved by the Owner and for which payment is accepted by the Contractor, in which no adjustment in Contract Time is stipulated, shall be understood to mean that no such adjustment is required by reason of the change, and any and all rights of the Contractor or any subsequent request for adjustment of Contract Time by reason of the change is waived.*

**§ 7.2.6** *Request by the Contractor for adjustment of the Contract Amount regardless of the reason therefore, shall be submitted to the Architect and the Owner with itemized labor and material quantities and unit prices to permit proper evaluation of the request. A submission by the Contractor containing unsubstantiated lump sum requests for adjustment of the Contract Amount will not be considered by the Owner and Architect. The Owner and Architect will not be liable for any delay incurred by reason of the Contractor's failure to submit satisfactory justification and back-up with any request for adjustment to the Contract Amount.*

**§ 7.2.7** *Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the initial Work which is the subject to the Change Order, including, but not limited to, all direct, indirect and impact costs associated with such change and any and all adjustment to the Contract Sum and the Construction Schedule. The Contractor will not be entitled to any compensation for additional work, impact costs or delays in the Construction Schedule not included in the Change Order.*

**§ 7.2.8** *No additional time will be granted to the Contractor for minor change orders unless each individual change order totals more than \$100,000.*

**§ 7.2.9** *Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the initial Work which is the subject to the Change Order, including, but not limited to, all direct, indirect and impact costs associated with such change and any and all adjustment to the Contract Sum and the Construction Schedule. The Contractor will not be entitled to any compensation for additional work, impact costs or delays in the Construction Schedule not included in the Change Order.*

### **§ 7.3 Construction Change Directives**

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

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

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

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

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement ~~not to exceed 15%. or if no such amount is set forth in the Agreement, a reasonable amount.~~ In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor *shall be in accordance with the New Jersey Prevailing Wage Rates at the time of the Contract commencement with no additional "labor burden", future increases or any other considerations.* ~~including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;~~
- .2 Costs of materials, supplies, and equipment, ~~including cost of transportation,~~ whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, *only when machinery or equipment is not already on site* ~~whether rented from the Contractor or others;~~
- .4 Costs of premiums for all bonds and insurance *shall be limited to 1.5%, 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. NOT PERMITTED!~~

§ 7.3.4.1 *The allowance for overhead and profit combined, included in the total cost to the Owner, may only include a Contractor, his Subcontractor and shall be limited to a total of 15% of the cost.*

§ 7.3.4.2 *In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs, including labor, materials and subcontracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are subcontractors, they shall be itemized.*

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

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

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

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

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

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

## § 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect **within five (5) calendar days** and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

## ARTICLE 8 TIME

### § 8.1 Definitions

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

§ 8.1.2 ~~The date of commencement of the Work is the date established in the Agreement.~~ ***The work to be performed under this Contract shall commence after the required insurance has been obtained and approved and within three days after issuance of the notice to proceed by the Owner. The Contract Time shall commence as of the date of the Notice to Proceed unless otherwise specified in the agreement.***

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

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

### § 8.2 Progress and Completion

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

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

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

***§ 8.2.4 Owner, or his/her representative, in coordination with the Contractor, shall set work hours. Contractor may be required to work nights, weekends or holidays as necessary to complete the work in accordance with the Schedule or in coordination with School Activities. Under no circumstances shall the Contractor begin or continue with work that is adversely impacting School activity or operations. All utility shutdowns, interruptions, work in or adjacent to existing buildings will be coordinated through the Owner, or his representative, and may have to be performed during hours when the School is not in operation. All cutting, hammering or other activity that is noisy, produces smoke or fumes or is otherwise disruptive to the School may have to be done during hours when the School is not in operation. Work required to be performed during non-school operating hours, as determined by the Owner or his representative, will be performed at no additional cost to the Owner.***

***§ 8.2.5 Contractor agrees to increase manpower, increase work hours, and to increase equipment necessary to maintain the Project Construction Schedule, and when also requested by the Architect and the Owner, and shall be without additional cost or charge to the Owner.***

***§ 8.2.6 Work shall commence within ten (10) days of the issuance by Owner of a Notice to Proceed and shall proceed uninterrupted to Final Completion. The Contractor further acknowledges and agrees that if the Contractor fails to complete substantially or cause the Substantial Completion of any portion of the Work as required by the Project Construction Schedule and/or within the Contract Time, the Owner will sustain extensive damages and serious loss as a result of such failure. The exact amount of such damages will be extremely difficult to ascertain. Therefore, the Owner and the Contractor agrees as set forth below.***

***.1 If the Contractor fails to achieve partial completion within the requirements of the Milestone Dates or the approved Schedule or to achieve Substantial Completion of all or part of the Work***

*when and as required by the Project Construction Schedule and/or within the Contract Time, the Owner shall be entitled to retain or recover from the Contractor and its Surety, as liquidated damages and not as a penalty, the amounts indicated in other sections of the Contract Documents and commencing upon the first day following expiration of the Project Construction Schedule and/or the Contract Time, as the case may be, and continuing until the actual Date of Substantial Completion.*

#### **§8.2.7 Adherence to Schedule**

- .1 The Owner reserves the right to withhold monthly progress payments if the Contractor is behind schedule, unless the Contractor documents, in writing, any delays that are not the fault of the Contractor and to which the Owner and Architect agree.*
- .2 Monthly progress payments will only be released after the Contractor reaches the status of completion for that month contemplated by the construction schedule.*

#### **§ 8.3 Delays and Extensions of Time**

**§ 8.3.1** If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; *or by occurrences beyond the control and without the fault or negligence of the Contractor and which by the exercise of reasonable diligence the Contractor is unable to prevent or provide against, including labor disputes (other than disputes limited to the work force of, or provided by, the Contractor or its Subcontractors), fire, unusual delay in deliveries not reasonably anticipatable, unavoidable casualties, or by other occurrences which the Architect, subject to the Owner's approval, determines may justify delay, then, provided that the Contractor is in compliance with Subparagraph 8.3.3 hereof, the Contract Time shall be extended by Change Order or Construction Change Directive for the length of time actually and directly caused by such occurrence as determined by the Architect and approved by the Contractor and Owner (such approval not to be unreasonably withheld, delayed, or conditioned); provided, however, that such extension of Contract Time shall be net of any delays caused by or due to the fault or negligence of the Contractor or which are otherwise the responsibility of the Contractor and shall also be net of any contingency or "float" time allowance included in the Contractor's construction schedule. The Contractor shall, in the event of any occurrence likely to cause a delay, cooperate in good faith with the Architect and Owner to minimize and mitigate the impact of any such occurrence and do all things reasonable under the circumstances to achieve this goal* (3) ~~by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control;~~ (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

**§ 8.3.2** ~~Claims relating to time shall be made in accordance with applicable provisions of Article 15. Any claim for extension of time shall be made in writing to the Architect not more than five (5) days after the commencement of the delay, otherwise, it shall be waived. The Contractor shall provide an estimate of the probable effect of such delay on the progress of the work. No claim made beyond the five (5) days shall be considered valid.~~

**§ 8.3.2.1** *The Contractor agrees that if any delay in the Contractor's works unnecessarily delays the work of any other Contractor or Contractors, the Contractor shall in that case pay all costs and expenses incurred by such parties due to such delays and hereby authorizes the Owner to deduct the amount of such costs and expenses from any moneys due or to become due the Contractor under this Contract. The Architect shall be responsible for ascertaining whether the Contractor is responsible for delaying any of the work of any other Contractor. His decision shall be final.*

**§ 8.3.3** *Notwithstanding anything to the contrary in the Contract Documents, any extension of the Contract Time, to the extent permitted under Paragraph 8.3.1., shall be the sole remedy of the Contractor for any (1) delay in the commencement, prosecution or completion of the Work, (2) hindrance or obstruction in the performance of the Work, (3) loss of productivity or (4) other similar claims (collectively referred to in this Paragraph 8.3.3. as "delays"), whether or not such delays are foreseeable, unless a delay is caused by acts of the Owner constituting active interference with the Contractor's performance of the Work and only to the extent such acts continue after the Contractor furnishes the Owner with written notice of such interference. In no event shall the Contractor be entitled to any compensation or recovery of any damages in connection with any delay including without limitation consequential damages, lost opportunity cost, impact damages or other similar remuneration. The Owner's exercise of any of its rights or remedies under the Contract Documents (including without limitation*

ordering changes in the Work or directing suspension, rescheduling or correction of the Work) regardless of the extent or frequency of the Owner's exercise of such rights or remedies shall not be construed as an act of interference with the Contractor's performance of the Work. This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

**§ 8.3.4** *The Contractor agrees that the Owner can deduct from the Contract Sum, any wages paid by the Owner to any Inspector or Architect or other professional necessarily employed by the Owner for any number of days in excess of the number of days allowed in the specifications for completion of work.*

**§ 8.3.5** *Where the cause of delay is due to weather conditions, an extension of time shall be granted only for unusually severe weather, as determined by reference to historical data. The term "historical data" as used in the previous sentence shall be construed according to this formula: Average rainfall (or snow or low temperature) for the past five years.*

## **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.~~

**§ 9.1.3** *Payment procedures shall be as follows:*

- 1. Contractor shall submit Schedule of Values to Architect for review*
- 2. Prior to end of each pay period, Contractor shall submit a rough draft ("pencil copy") for their payment application for review and approval by the Architect.*
- 3. Upon approval of pencil copy, Contractor shall submit at least three copies of their payment application to the Architect for approval along with their certified payrolls and monthly manning reports.*
- 4. Architect will approve payments and forward to the Owner.*

### **§ 9.2 Schedule of Values**

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work *which in the aggregate equals that total Contract Sum, divided so as to facilitate payments to Subcontractors, supported by such evidence of correctness as the Architect may direct or as required by the Owner. The schedule, when approved by the Architect and Owner, shall be used to monitor the progress of the Work and as a basis for Certificates for Payment. All items with entered values will be transferred by the Contractor to the "Applications and Certificate for Payment," and shall include the latest approved Change Orders and Construction Change Directives. Change Order values and Construction Change Directive values shall be broken down to show the various subcontracts. The Application for Payment shall be on AIA Document G702 and G703 and the approved Voucher obtainable from the Owner. Each item shall show its total scheduled value, value of previous applications, value of the application, percentage completed, value completed and value yet to be completed. All blanks and columns must be filled in, including every percentage complete figure.* The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

**§ 9.2.2** *The Contractor shall include the following separate items in his/her schedule of values:*

- Punch List Work - Minimum of 1% of contract value*
- Value for Record Drawings and manuals*
- Value for final clean-up by the Contractor*
- Value for shop drawings*
- Safety protections*



## *Allowance*

### **§ 9.3 Applications for Payment**

**§ 9.3.1** *The Contractor shall submit to the Architect an itemized Application for Payment for their Contract on AIA Document G702 and G703 and the approved Voucher obtainable from the School District. Payroll Certification for all employees of all of the workers on the project shall be submitted as well as other such data for the purposes of summarizing the work and tracking the project. The Architect will process the application and forward it with his recommendations to the Owner* At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

~~**§ 9.3.1.1** As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.~~

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

**§ 9.3.1.3** *Until substantial completion, the Owner will pay 98% of the amount due the Contractor on account of progress payments until a balance of \$500,000 is due the Contractor. The retainage will then be increased to Five Percent (5%) of the \$500,000.00 balance of the contract until final completion. The retainage will be held until final acceptance of the project by the Architect and the Owner. The Contractor shall submit a separate voucher for the full amount of the retainage along with the Consent of Surety, A.I.A. Form G707A and the Contractor shall be required to furnish a Maintenance Bond for 100% of the Project Cost for a period of two (2) years from the Date of Final Acceptance.*

**§ 9.3.1.4** *Upon acceptance of the work performed pursuant to this Contract for which the Contractor has agreed to the withholding of payments pursuant to Article 9 of this Contract, all amounts being withheld by the Owner shall be paid in accordance with Paragraph 9.3.1.3 without further withholding of any amounts for any purposes whatsoever, provided that the Contract has been satisfactorily completed.*

**§ 9.3.1.5** *Each application for payment shall be accompanied by the following, all in form and substance satisfactory to the Owner and Architect:*

- 1. A current contractor's lien waiver and duly executed and acknowledged sworn statement by an officer of the Contractor showing all subcontractors and materialmen with whom the Contractor has entered into subcontracts, the amount of each such subcontract, the amount requested for any subcontractor and materialmen in the requested progress payment and the amount to be paid to the Contractor from such progress payment.*
- 2. A Purchase Order or Voucher if required by the Owner.*
- 3. A Schedule Update approved by the Architect.*
- 4. An updated Shop Drawing Log showing the status of all of the required Shop Drawings.*

**§ 9.3.2** ~~Unless otherwise provided in the Contract Documents,~~ *At the Owner's Option,* 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~~ *Paragraphs 9.3.2.1, 9.3.2.2, 9.3.2.3 and 9.3.2.4 and* 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** *With each Application for Payment the Contractor shall submit to the Architect and Owner a written list identifying each location where materials are stored off the Project site and the value of materials at each*

*location. The Contractor shall procure insurance satisfactory to the Owner for materials stored off the Project site in an amount not less than the total value thereof.*

*§ 9.3.2.2 The consent of any surety shall be obtained to the extent required prior to the payment for any materials stored off the Project site.*

*§ 9.3.2.3 Representatives of the Owner shall have the right to make inspections of the off-site storage areas at any time.*

*§ 9.3.2.4 Materials stored off site shall be protected from diversion, destruction, theft and damage to the satisfaction of the Owner, shall specifically be marked for use on the Project and shall be segregated from other materials at the storage facility.*

**§ 9.3.3** *The Contractor warrants and agrees that title to all Work will pass to the Owner either by incorporation in the construction or upon receipt of payment therefor by the Contractor, whichever occurs first, free and clear of all liens, claims, security interests, or encumbrances whatsoever, that the vesting of such title shall not impose any obligation on Owner or relieve Contractor of any of its obligations under the Contract, that the Contractor shall remain responsible for damages to or loss of the Work, whether completed or under construction, until responsibility for the Work has been accepted by Owner in the manner set forth in the Contract Documents, and that no Work covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.* 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.

**§ 9.3.4** *The Contractor acknowledges that actual payments pursuant to any Application for Payment and Certificate for Payment must be voted upon by the Owner at a public meeting. Typically, the Owner has monthly public business meetings. Provided an Application for Payment is received by the Architect not later than the date required by the Owner, and upon issuance of a Certificate of Payment for all or part of the Application for Payment, the Owner shall make payment to the Contractor not later than the tenth (10th) day after the Owner's regular public meeting held during the following month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than ten (10) calendar days after the next regular public meeting of the Owner held after the late submitted Application for Payment has been reviewed and certified for payment by the Architect.*

**§ 9.3.4.1** *Contractor shall comply with the terms of the agreement between Owner and Contractor with reference to Applications for Payment.*

**§ 9.3.4.2** *Certification shall be subject to Consent of Surety presented by the Contractor for each application.*

## **§ 9.4 Certificates for Payment**

**§ 9.4.1** The Architect will, within ~~seven~~ **Fourteen** days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1. ***The Architect must receive this information in accordance with the schedule set forth at the Pre-Construction Meeting***

**§ 9.4.2** The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the

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

### **§ 9.5 Decisions to Withhold Certification**

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

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.
- .8 ***The failure of any Contractors to comply with mandatory requirements for maintaining record drawings. The Contractor shall be required to check record drawings each month. Written confirmation that the record drawings are up-to-date shall be required by the Architect before approval of the Contractor's monthly payment requisition will be considered.***
- .9 ***Shop drawings not submitted as required by the Contract Documents.***
- .10 ***Failure to cooperate with Owner or Architect relative to construction schedule, material storage, coordination with the School District, clean up or safety.***

~~**§ 9.5.2** When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.~~

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

**§ 9.5.4** If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

- .1 ***If the Contractor disputes any determination by the Architect with regard to any Certificate of Payment, the Contractor nevertheless expeditiously shall continue to prosecute the Work.***
- .2 ***The failure of the Owner to retain any percentage payable to the Contractor or any change in or variation of the time, method or condition of payments to the Contractor shall not release or discharge to any extent whatsoever the Surety upon any bond given by Contractor hereunder. The Owner shall have the right, but not the duty, to disregard any schedule of items and costs that the***

- Contractor may have furnished and defer or withhold in whole or in part any payment if it appears to the Owner, in its sole discretion, that the balance available in the Contract Sum as adjusted and less retained percentages, may be insufficient to complete the Work.*
- .3** *Notwithstanding any provision of any law to the contrary, the Contractor agrees that the time and conditions for payment under the Contract for Construction shall be as stated in the Contract for Construction and in the Contract Documents. The Contractor specifically agrees that Owner's failure to give, or timely give, notice of:*
- .1 any error in an invoice or application for payment submitted by the Contractor for payment; or*
  - .2 any deficiency or non-compliance with the Contract Documents with respect to any Work for which payment is requested, shall not waive or limit any of the Owner's rights or defenses under the Contract for Construction and the Contract Documents, or require the Owner to make a payment in advance of the time, or in an amount greater than, as provided by the Contract for Construction.*
- .4** *The Contractor shall make payments to its subcontractors in accordance with the provisions of any applicable law governing the time, conditions, or requirements for payment to its Subcontractors, and shall comply with the provisions of any such law.*
- .1 The Contractor will pay its Subcontractors no later than (15) fifteen days after receipt of a payment from the Owner which includes payment for the work of any such Subcontractors.*
  - .2 The Contractor shall require its Subcontractors, by appropriate agreement, to pay their subcontractors and suppliers (of any tier) within the same time.*
  - .3 The Contractor and its Surety shall indemnify and defend the Owner any loss, cost, expenses, or damages including attorney's fees, arising from or relating to the Contractor's failure to comply with such law.*

## **§ 9.6 Progress Payments**

**§ 9.6.1** After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect. *Notwithstanding Certification by the Architect, the Owner may refuse to make payment based on any default by the Contractor including, but not limited to those defaults set forth in Subparagraphs 9.5.1 through 9.5.1.11. The Owner shall not be deemed in default by reason of withholding payment while any of such defaults by the Contractor remain uncured.*

**§ 9.6.2** The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

**§ 9.6.3** The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

**§ 9.6.4** The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

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

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

**§ 9.6.7** Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall

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

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

**§ 9.6.9** *The Owner will issue timely payments to the Contractor in accordance with the requirements of "The Prompt Payment Act", N.J.S.A. 2A:30A-1, et seq. The Contractor is hereby notified that the Owner, as a public entity, requires all payments to be approved at scheduled public Board of Education meetings. The vote on authorization for payments will be made at the first public meeting of the Board, following the Board's receipt of the Architect's authorization for payment, and paid during the subsequent payment cycle.*

### **§ 9.7 Failure of Payment**

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not *for reasons other than a default of the Contract, including but not limited to those defaults set forth in Subparagraphs 9.5.1.1 through 9.5.1.11* pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by *a court of law binding dispute resolution*, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

### **§ 9.8 Substantial Completion**

**§ 9.8.1** Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof *which the Owner agrees to accept separately* is sufficiently complete in accordance with *this definition and* the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. *The Work will not be considered substantially complete until all project systems included in the Work are operational as designed and scheduled, all designated or required inspections, certifications, permits, approvals, licenses and other documents from any governmental authority having jurisdiction thereof necessary for the beneficial use and occupancy of the Project are received, designated instruction of Owner's personnel has been completed, and all final finishes within the Contract are in place. In general, the only remaining Work shall be minor in nature, so that the Owner can occupy the building on that date and the completion of the Work by the Contractor would not materially interfere or hamper the Owner's (or those claiming by, through or under the Owner) normal operations. Contractor recognizes that normal operations requires the use and occupancy of the Work by students and faculty without interruption and that any punchlist or corrective work shall be done at times when the Work is not so occupied. As a further condition of substantial completion acceptance, the Contractor shall certify that all remaining Work will be completed within thirty (30) consecutive calendar days or as agreed upon following the date of substantial completion. In addition to any other definitions of Substantial Completion as defined by the contract documents, the following is required before the project is considered "Substantially Complete":*

*In addition to the above the following items must be completed in order to deem the work Substantially Complete:*

- 1. All required final inspections have been completed by the authority having jurisdiction resulting in a TCO or CO.*

**§ 9.8.2 "PUNCH LIST":** When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items "PUNCH LIST" to be completed or corrected *along with all special warranties required by the Contract Documents endorsed by the contractor* 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.

**§ 9.8.2.1** *The Contractor shall perform a Quality Control / Quality Assurance QC/QA Punchlist of all work prior to requesting Substantial Completion and a punch list from the Owners Team. The Contractor's Project Manager shall take the lead and conduct an onsite review with the Contractor's superintendent and representation from every major sub prime contractor. Notification of this onsite walk thru shall be provided in writing to all members of the Owners Team who may or may not choose to attend. The Contractor's Project Manager shall record and distribute this QC/QA Punchlist in a matrix that provides an additional column for the Contractor to document the completion of the work and the date. After successful completion of the Contractor's QC/QA Punchlist and all work, the Contractor shall request the Owners Team perform a Punchlist. Substantial Completion shall be requested in accordance with paragraph 9.8.1.*

**§ 9.8.3** Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents **and the requirements above** 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 **in writing** a request for another inspection by the Architect to determine Substantial Completion.

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

**§ 9.8.4.1** *The Architect's Certificate of Substantial Completion shall be subject to the Owner's final approval.*

**§ 9.8.5** The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. ~~Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.~~

## **§ 9.9 Partial Occupancy or Use**

**§ 9.9.1** The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

**§ 9.9.2** Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

**§ 9.9.3** ~~Unless otherwise agreed upon,~~ partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

**§ 9.9.4** *The occupancy of any portion of the Work shall not constitute acceptance of any Work, except as hereinafter stated, nor does it waive the Owner's right to Liquidated Damages. Final Acceptance of the Work shall be for the whole Work only and not part.*

**§9.9.5 As portions of the Project are completed, and occupied, Contractor shall ensure the continuing construction activity will not unreasonably interfere with the use, occupancy and quiet enjoyment of the completed portions thereof.**

- .1 The Contractor agrees to coordinate the Work with the Architect and the Owner in order to minimize disturbance to occupied portions of the structure.**
- .2 In the event performances or scheduled events by the Owner are conducted in close proximity to the Work in progress, the Contractor agrees to cease all work which may disturb the Owner's occupants at the site.**

## **§ 9.10 Final Completion and Final Payment**

**§ 9.10.1** Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled. **All warranties and guarantees required pursuant to the Contract Documents shall be assembled and delivered by the Contractor to the Owner as part of the final application for payment. The final Certificate for Payment will not be issued by the Architect until all warranties and guarantees have been received and accepted by the Owner.**

**§ 9.10.1.1 The Architect's Certificate of Final Completion shall be subject to the Owner's final approval.**

**§ 9.10.2** Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) **evidence of compliance with all requirements of the Contract Documents: notices, certificates, affidavits, other requirements to complete obligations under the Contract Documents: including but not limited to (a) delivery to Architect of Contractor's General Warranty (as described in Paragraph 3.5) and each written warranty and assignment thereof prepared in duplicate, certificates of inspections, and bonds for Architect's review and delivery to Owner, (b) delivery to Architect a printed or typewritten operating, servicing, maintenance and cleaning instructions for all Work; parts lists and special tools for mechanical and electrical Work, in approval form, (c) delivery to the Architect of specified Project record documents and (d) delivery to Owner of a Final Waiver of Liens (AIA Document G-706 or other form satisfactory to Owner), covering all Work including that of all Subcontractors, vendors, labor, materials and services, executed by an authorized officer and duly notarized. In addition to the foregoing, all other submissions required by other articles and paragraphs of the Specifications including final construction schedule shall be submitted to the Architect before approval of final payment** if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

**§ 9.10.3** If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If

the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

## 9.11 LIQUIDATED DAMAGES

§ 9.11.1 *The Contractor understands and agrees that all work must be performed in an orderly and closely coordinated sequence so that the date for substantial completion is met.*

§ 9.11.2 *If the Contractor fails to complete his work or fails to complete a portion of his work, he shall pay the Owner, as liquidated damages and not as a penalty, the sum as specified in the technical portion of the contract documents. Such amount is agreed upon as a reasonable and proper measure which the Owner will sustain each calendar day by failure of the Contractor to complete work within the stipulated time.*

§ 9.11.3 *For projects that have milestone completion dates, liquidated damages shall apply to all phased construction milestone dates as established by the phasing plan, sequencing section and/or the Summary of Work.*

§ 9.11.4 *Substantial completion will be determined by the Architect as defined in paragraph 9.8.1.*

§ 9.11.5 *For damage occurring at the time of delay, the Owner may retain the amount due to him under this clause from any payments due to the Contractor.*

§ 9.11.6 *The Owner will suffer financial loss if the project is not substantially complete on the date set forth in the Contract Documents. The Contractor (and the Contractor's Surety) shall be liable for and pay to the Owner the sum of \$1,000.00 stipulated and fixed, agreed as liquidated damages for each calendar day of delay until the work is substantially complete.*

§ 9.11.7 ***ONE THOUSAND (\$1,000) PER DAY CALENDAR DAY FOR PUNCH LIST ITEMS.*** *Contractor has thirty (30) days to complete the final punch list. Liquidated damages will be addressed starting on the 31<sup>st</sup> day after receipt of Notice of Substantial Completion or issuance of the Final Punch List, whichever comes later, to that date of the Architect's acceptance that all punch list(s) have been completed.*

## ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

### § 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

#### § 10.1.1

1. *The Contractor must fully comply with the job safety requirements in addition to all Federal, State and Local safety guidelines. All cost associated with complying with all safety requirements shall be included in each contractor's base bid.*
2. *The Contractor will serve as the overall Project Safety Coordinator and shall be responsible for all issues of safety and protection. The Contractor shall designate a safety person at the job site while the contractor is working on the project site. The designated safety person shall be responsible for the safety of their work and for their workers and to make continuous inspections for all safety issues relating to*



his work. The Architect is not responsible for safety on this project but will endeavor to promote safety. Each Contractor must comply with job Safety Requirements in addition to OSHA and local agency requirements. Failure to comply with safety issues will be grounds for withholding of payments.

3. Contractor will comply with all reasonable requests of the Owner and Architect with respect to additional security and protections required for work interfacing with Facility Operations. Safety is of utmost importance on this project and all issues relative to safety and protection of the Facility, Staff and Occupants will be treated as emergency needs and will not be subject to the 7-day notice requirements of Article 14.
  - A. The Contractor to provide, maintain, relocate and remove in coordination the Architect a 6' high, perimeter security fence. Fence will surround the building and proposed parking areas and will have signage attached at 100' intervals advising "Construction Area – Please Keep Out". The Contractor to be responsible for opening and securing site each day.
  - B. Orange safety fencing will be installed around the entire area of any and all earthwork, excavations, etc. and will be maintained until the work is complete.
  - C. This is a hard hat job. Identifying hard hats shall be worn at all times.
  - D. Hot work permits will be issued by foreman for all activities involving open flames.
4. The proper execution of the required safety provisions is directly related to the general condition safety line item on the schedule of values. The failure to provide a competent person on site to properly identify and take immediate corrective action may result in deductions to the general condition safety line item of the schedule of values.
5. The Contractor shall be responsible for the immediate investigation and resolution of all safety and environmental complaints / issues generated by contractor employees, owners, owner's representatives or members of the public.
6. Contractor shall maintain all egress routes throughout the work area. Contractor shall provide fire extinguishers throughout as deemed necessary by the fire official.
7. Contractor's safety representative shall perform a daily safety inspection walk through to ensure that all requirements of the OSHA Standards, Fire Protection Standards and Safe Work Practices are being with and/or corrected. The responsibility of the Contractor is to provide a safe and healthy work environment for construction personnel, Owner's personnel and representative, and the public.
8. Upon written receipt of safety concerns and /or issues, the Contractor shall respond in writing addressing how the safety concerns or issues were resolved.
9. The Contractor's response and compliance with correction of deficiencies noted in the safety concerns notice issued by the Authority having jurisdiction is mandatory. Failure to comply will be grounds for withholding of progress payments until the conditions are acceptable to O.S.H.A or Authority having local jurisdiction.
10. Contractor shall have all required personal protective equipment and materials available for use by each employee as required by Federal, State and Local guidelines.
11. Contractor shall supply proper equipment and crew sizes as necessary to safely complete the work.
12. Contractor shall provide documented safety training for each of their employees and subcontractor's employees no later than the first day they arrive on site. The training shall be documented and signed by the trainer and employee. A copy of all safety-training documents is to be provided to the Owner and updated as manpower loading increases.
13. The Contractor shall be responsible for providing and maintaining all temporary emergency egress routes. The Contractor shall obtain the approval of the Building and Fire Departments for all temporary emergency egress routes.
14. Contractor shall provide OSHA approved pedestrian walking bridges as necessary to protect against overhead hazards.
15. Contractor shall provide, relocate and /or maintain barricades, signage, provide flagmen etc. as necessary to ensure public safety and safe egress. Contractor to provide, maintain, relocate and remove in coordination with the Owner and/or Architect, the perimeter security fence.
16. Contractor shall submit to the Architect, all MSDS sheets and shall cooperate in the posting of all required notifications relative to the use of hazardous substances on the property. Contractor to comply with NJ Law regarding the use or storage of hazardous substances in Schools. MSDS sheets shall be posted prior to product being delivered to site.

17. *Contractor, subcontractor, vender, etc. should enforce a full time no smoking or alcohol use policy for all employees during the entire course of the project. Any worker found violating these reflections, or being belligerent, will be subject to removal from the site at the sole discretion of Owner.*
18. *Contractor shall be responsible to secure the site at the end of each workday by an effective means and maintain until all parties determine no longer required.*
19. *For the safety of occupants, staff, and the public, all crane operation and lifting must be scheduled and coordinated with the Owner. Swinging of crane boom over occupied space will not be allowed. Contractor shall provide additional barricades and fencing around his crane at all times.*
20. *Contractor must submit an acceptable OSHA compliant site specific written safety plan to the Architect, for review within fourteen (14) days from the notice to proceed or prior to mobilizing on site, whichever comes first. The written safety plan shall include (as applicable to their work) but is not limited to the following:*
  - *Full time no smoking policy or alcohol use is allowed on the project. Any worker found violating these restrictions, or being belligerent, will be subject to removal from the site. (Contractors shall post required signs).*
  - *Full time hard hat policy (identifying hard hats shall be worn at all times).*
  - *Site specific emergency action plan with contractor phone numbers, active 24 hours a day, 7 days a week.*
  - *Competent on-site safety representative, named and active (Provide alternate)*
  - *Full time fall protection plan for exposures over 6'-0".*
  - *Job site signage plan (Perimeter fence warning signs posted 50'-0" o/c.*
  - *First aid and CPR provisions.*
  - *OSHA 200 log and Job Safety and Health Protection poster.*
  - *Daily clean up.*
  - *Hazard Communication Program with MSDS logged and maintained.*
  - *Hazard Communication program.*
  - *Daily diary of work, issues, and incident, etc.*
  - *GFI safety program.*
  - *Required safety clothes; Eye & ear protection, respirators, boots, belts, gloves etc. as appropriate to their work requirement.*
  - *Fire Extinguishers.*
  - *Removal guard rail and protection at material loading areas, 200lb force minimum requirement.*
  - *Daily inspection of tools and equipment; verify safety devises are operational.*
  - *Ladder usage plan.*
  - *Weekly tool box meetings, documented and signed by each employee*
  - *Temporary heat procedures.*
21. *Contractor shall maintain and submit a complete copy of the written safety plan, logs, diaries, plans and programs on site for the Owner.*

*The speed limit within the project property is 5MPH. Contractor employees operating vehicles in excess of the speed limit or in any otherwise unsafe manner will be directed to leave the site and not permitted to return.*

## **§ 10.2 Safety of Persons and Property**

**§ 10.2.1** The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction. *as well as any other real or personal property of the Owner.*
- .4 *The Contractor shall provide a third-party Insurance Safety Site Inspection Report monthly and remedy all issues promptly.*

§ 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 Contractor shall comply with all regulations required by the Federal Occupational Safety and Health Act (OSHA).*

*§ 10.2.2.2 The Contractor shall conform to all applicable New Jersey Department of Environmental Protection regulations.*

*§ 10.2.2.3 Contractors must comply with Construction and Environmental Standards contained in Federal and State Regulations and other applicable laws.*

*§ 10.2.2.4 It is the Contractor's responsibility to determine the existence of potentially hazardous materials, including lead, and to protect his workmen and the work area.*

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

#### **§ 10.2.8 Injury or Damage to Person or Property**

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

*§ 10.2.9 The Contractor shall provide and maintain in good operating condition suitable and adequate fire protection equipment and shall comply with all reasonable recommendations regarding fire protection made by the representatives of the fire insurance company carrying insurance on the Work or by the local fire chief or fire marshal. The area within the site limits under the Contractor's control shall be kept orderly and clean, and all combustible rubbish shall be promptly removed from the site. Contractor will comply with all reasonable requests of the Owner with respect to additional security and protections required for work interfacing with School Operations. Safety is of utmost importance on this project and all issues relative to safety and protection of the School, Staff and Students will be treated as emergency needs and will not be subject to the 7-day notice requirements of Article 14.*

**§ 10.2.10** *The Contractor shall remove snow or ice which may accumulate on the site within areas under his control which might result in damage or delay.*

**§ 10.2.11** *The Contractor shall take all precautions necessary to prevent loss or damage caused by vandalism, theft, burglary, pilferage, or unexplained disappearance of property of the Owner and Contractor, whether or not forming part of the Work, located within those areas of the Project to which the Contractor has access. Whenever unattended, including nights and weekends, mobile equipment and operable machinery shall be kept locked and made inoperable and immovable.*

**§ 10.2.12** *Neither the Owner nor the Architect shall be responsible for providing a safe working place for the Contractor, the Subcontractors or their employees, or any individual responsible to them for the work.*

**§ 10.2.13** *The Contractor shall conform to requirements of OSHA, the Construction Safety Code of the State Department of Labor and those of the AGC Manual. The requirements of the New Jersey and Local Building Construction Codes shall apply where there are equal to or more restrictive than the requirements of the Federal Act.*

**§ 10.2.14** *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 as necessary from injury or any cause.*

**§ 10.2.15** *The Contractor shall promptly report in writing to the Owner and Architect all accidents arising out of or in connection with the Work which caused death, personal injury or property damage 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 Owner and Architect.*

**§ 10.2.16** *Contractor is required to follow and enforce the work rules set forth below. Failure to comply with or enforce any of these rules will be grounds for suspension and/or termination of this Contract:*

- .1 No use of alcoholic beverages prior to or during working hours. Anyone found impaired after lunch will be escorted from the Project site.*
- .2 No use of illegal drugs or prescription medications which could induce drowsiness or otherwise impair perception or performance. Use of illegal drugs may result in prosecution to the fullest extent of the law. Any warning associated with use of prescription drugs must be complied with, particularly warning against operation of machinery and equipment.*
- .3 No horseplay or rough-housing will be allowed.*
- .4 No sexual, racial, or ethnic harassment, or similar conduct will be tolerated.*
- .5 All employees shall use proper sanitation habits including use of toilet facilities and garbage cans.*
- .6 All employees shall dress in clothing appropriate for the work they are to perform. All personnel are to wear hardhats, safety shoes, glasses, gloves, masks or respirators, noise protection devices, and other protective clothing and equipment as required by OSHA standards.*
- .7 All equipment is to be properly stored and/or secured at the end of the work day or if it is to remain idle for greater than one hour.*
- .8 All personnel are to be made aware of the availability of Material Safety Data Sheets for materials used at the Project site. This information is available from the Contractor using the product. The Contractor shall maintain a copy of all MSDS forms at the construction site office for all personnel to review.*

### **§ 10.3 Hazardous Materials and Substances**

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

**§ 10.3.2** *Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material*

or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up *adjustments shall be accomplished as provided in Article 7.*

**§ 10.3.3** ~~To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.~~

**§ 10.3.4** ~~The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.~~

**§ 10.3.5** The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

**§ 10.3.6** If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

**§ 10.3.7** *The Contractor shall submit to the Owner all MSDS sheets and shall cooperate in the posting of all required notifications relative to the use of hazardous materials on school property. Contractor to comply with NJ Law regarding the use or storage of hazardous materials in Schools.*

## **§ 10.4 Emergencies**

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

### **§ 10.4.1 – EMERGENCY/SAFETY PLAN**

*All parties involved in the construction process should be aware of emergency services that may be required during the construction process.*

*Contractor shall establish the site-specific Emergency Action Plan and, after approval by the owner, and local authorities, shall display at various locations at the site.*

*In case of an accident, emergency, or injury on the job site, the Contractor shall immediately follow the Site-Specific Emergency Action Plan. Following the incident, the Contractor shall submit to the Owner a complete written accident report detailing the circumstances which caused the accident, extent of injuries, damage to the building, time of accident, corrective action required, etc.*

**ARTICLE 11 INSURANCE AND BONDS**

**§ 11.1 Contractor's Insurance and Bonds**

All insurance provisions shall be confirmed with Owner's Insurance Agent.

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants, *the State of New Jersey, the New Jersey Department of Education, New Jersey Schools Development Authority and the New Jersey Economic Development Authority* shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

*§11.11.2 Contractor shall, without in any way altering Contractor's liability under the Contract or applicable law, obtain, pay for and maintain insurance for the coverages and amounts of coverage not less than those set forth below in the Schedule of Insurance Coverages and shall provide to Owner certificates issued by insurance companies satisfactory to Owner to evidence such coverage no later than 7 days of the date of the execution of this Contract and prior to any personnel or equipment being brought onto and/or before any work commences at the job site. The coverage afforded under any insurance obtained pursuant to this paragraph shall be primary to any valid and collectible insurance carried separately by any of the indemnities. Such certificates shall provide that there shall be no cancellation, non-renewal or material change of such coverage without thirty (30) days prior written notice to Owner. In the event of any failure by Contractor to comply with the provisions of this Article 11, Owner may, at its option, on notice to Contractor, suspend the Contract for cause until there is full compliance with this Article 11 and / or terminate the Contract for cause. Alternatively, Owner may purchase such insurance at Contractor's expense, provided that Owner shall have no obligation to do so, and if Owner shall do so, Contractor shall not be relieved of or excused from the obligation to obtain and maintain such insurance amounts and coverages. Contractor shall provide to Owner a copy of any and all applicable insurance policies. The Owner; LAN Associates Engineering, Planning, Architecture, Surveying, Inc.; Environmental Resolutions, inc.; the State of New Jersey; the New Jersey Department of Education; New Jersey Schools Development Authority and the New Jersey Economic Development Authority shall be named as an additional insured on a primary and non-contributory basis on all Insurance Policies to be provided by the Contractor.*

**§ 11.1.1.3 Schedule of Insurance Coverages**

- .1 Commercial General Liability, Each Occurrence**
  - a. Each Occurrence: \$ 1,000,000.00
  - b. Damage to Rented Premises: \$ 300,000.00
  - c. Medical Expense (Any one person): \$ 10,000.00
  - d. Personal & Adv Injury: \$ 1,000,000.00
  - e. General Aggregate: \$ 2,000,000.00
  - f. Products – Comp/Op Agg: \$ 1,000,000.00
  
- .2 Excess Umbrella Liability \$ 4,000,000.00**
  
- .3 Automobile Liability: (Hired autos, scheduled autos, non-owned autos)**
  - a. Combined Single Limit (each accident): \$ 1,000,000.00
  
- .4 Workers Compensation and Employers Liability:**
  - a. WC Statutory Limits:
    - 1. E.L. Each Accident: \$ 1,000,000.00
    - 2. E.L. Disease – Each Employee: \$ 1,000,000.00
    - 3. E.L. Disease – Policy Limit: \$ 1,000,000.00
  
- .5 Builder's Risk Insurance: The Contractor shall provide Builder's Risk Insurance for all risk of physical loss or damage to the property described hereunder in an amount equal to the Total Project Value, and furnished under Construction Contracts for the School Facilities Project; excepting excavations, foundations and other structures customarily excluded by such**

*insurance. The Policy shall name the Owner, State of New Jersey, the New Jersey Department of Education, New Jersey Schools Development Authority, and the New Jersey Economic Development Authority as loss payee as their interests may appear on a primary and non-contributory basis. The Builders Risk Policy is to include coverage for the perils of Earthquake, Flood, Full Windstorm, Equipment Breakdown and Theft (excluding employee theft), contain an endorsement allowing permission to occupy and include coverage for both transit and offsite storage. The policy is also to include all contractors, subcontractors and sub-subcontractors as well as the Owner, State of New Jersey, the New Jersey Department of Education, New Jersey Schools Development Authority, and the New Jersey Economic Development Authority, LAN Associates as Additional Named Insureds on a primary and non-contributory basis. The contractor and all subcontractors are responsible for all policy deductibles and uninsured or underinsured losses.*

- .6 The Policy shall name the following as Additional Insured: The Owner; LAN Associates Engineering, Planning, Architecture, Surveying, Inc.; the State of New Jersey; and the New Jersey Department of Education as additional insureds on a primary and non-contributory basis*
- .7 Contractual liability insurance as applicable to the Contractor's obligations under Paragraph 3.18 of the AIA General Conditions.*
- .8 Workers' Compensation Insurance of not less than statutory limits.*
- .9 Completed Operations Insurance written to the limits specified for liability insurance specified under subparagraph .1 above. Coverage shall be required from the date of the start of Beneficial Occupancy until one year after the issuance date of Final Certificate for Payment.*
- .10 Certificates of insurance must be submitted on the ACORD Form, Certificate of Insurance. Contractor's ACORD Certificate of Insurance must state "Contractual Liability Included" or it will be rejected.*
- .11 The Contractor shall either
  - .1 require each of his subcontractors to procure and to maintain during the life of their subcontracts, Subcontractor's Public Liability and Property Damage, of the type and in the same amounts as specified in the preceding paragraph; or*
  - .2 insure the activities of their subcontractors under their respective policies.**

**§ 11.1.2** The Contractor shall provide surety bonds *for the entire contract amount* of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

**§ 11.1.3** Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

**§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance.** Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

**§ 11.1.5 Contractor shall furnish a performance bond and labor and material payment bond meeting all statutory requirements of the State of New Jersey in form and substance satisfactory to the Owner and without limitation**

complying with the following specific requirements:

- .1 Except as otherwise required by statute, the form and substance of such bonds shall be satisfactory to the Owner in the Owner's sole judgment;
- .2 The bonds shall be executed by a responsible surety licensed in the State of New Jersey Best's rating of no less than A-/X and shall remain in effect for a period of not less than two years following the date of final acceptance or the time required to resolve any items of incomplete or inadequate work and the payment of any disputed amounts, whichever time period is longer;
- .3 The performance bond and the labor and material payment bond shall each be in an amount equal to the Contract Sum;
- .4 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 his power of attorney indicating the monetary limit of such power;
- .5 Any bond under this Paragraph 11.1.5 must display the surety's bond number. A rider including the following provisions shall be attached to each bond:

(1) Surety hereby agrees that it consents to and waives notice of any addition, alteration, omission, change or other modification of the Contract Documents which singularly or in the aggregate equals or is less than 20% of the Contract Sum. Any other alterations, change, extension of time or other modification of the Contract Documents or a forbearance on the part of either the Owner or the Contractor to the other shall not release the surety of its obligations hereunder and notice to surety of such matter is hereby waived.

(2) Surety further agrees that in the event of any default by the Owner in the performance of the Owner's obligations to the Contractor under the Contract, the Contractor or surety shall cause written notice of such default (specifying said default in writing) to be given to the Owner, and the Owner shall have 30 days after receipt of such notice within which to cure such default of such additional reasonable time as may be required if the nature of such default is such that it cannot be cured within 30 days. Such notice of default shall be sent by certified or registered U.S. mail, return receipt requested, first class postage prepaid to the Owner.

**§ 11.1.6** *If any of the foregoing insurance coverages are required to remain in force after final payment, including, but not limited to coverage for completed operations, an additional certificate evidencing continuation of such coverage shall be submitted with the Final Application for Payment.*

**§ 11.1.7** *In no event shall any failure of the Owner to receive certificates of policies required under Paragraph 11.1 or to demand receipt of such certificates prior to the Contractor commencing Work be construed as a waiver of the Owner or the Architect of the Contractor's obligations to obtain insurance pursuant to this Article 11. The obligation to procure and maintain any insurance required by this Article 11 is a separate responsibility of the Contractor and independent of the duty to furnish a certificate of such insurance policies.*

**§ 11.1.8** *If the Contractor fails to purchase and maintain or require to be purchased and maintained any insurance required under this Article 11, the Owner may, but shall not be obligated to, upon 5 days written notice to the Contractor, purchase such insurance on behalf of the Contractor and shall be entitled to deduct said cost from the Contractor's Contract Sum.*

**§ 11.1.9** *When any required insurance due to the attainment of a normal expiration date or renewal date shall expire the Contractor shall supply the Owner with certificates of insurance and amendatory riders or endorsements that clearly evidence the continuation of all coverage in the same manner, limits of protection and scope as was provided by the previous policy. In the event, any renewal or replacement policy for whatever reason obtained or required is written by a carrier other than that with whom the coverage was previously placed or the subsequent policy differs in any way from the previous policy, the Contractor shall also furnish replacement policy unless the Owner provides the Contractor with prior written consent to submit only a certificate of insurance for any such policy. All renewal and or replacement policies shall be in form and substance satisfactory to the Owner and written by carriers acceptable to the Owner.*

**§ 11.1.10** *The Contractor shall cause each subcontractor to (1) procure insurance in the amounts set for in Article 11 and (2) name the indemnities under Paragraph 3.18 as additional insureds under the subcontractor's comprehensive general liability policy. The additional insured endorsement included on the subcontractor's*



*comprehensive general liability policy shall state that coverage is afforded the additional insureds with respect to claims arising out of operations performed by or on behalf of the Contractor. If the additional insureds have other insurance which is applicable to the claims, such other insurance shall be on an excess or contingent basis. The amount of the insurance liability under this insurance policy shall not be reduced by the existence of such other insurance.*

**§ 11.1.11** *Property insurance provided by the Owner shall not cover any tools, apparatus, machinery, scaffolding, hoists, forms, staging, shoring, or other similar items commonly referred to as construction equipment which may be on the site and the capital value of which is not included in the work. The Contractor shall make its own arrangements for any insurance it might require on such construction requirement. Any such policy obtained by the Contractor under this Paragraph 11.4.7 shall include a waiver of subrogation.*

**§ 11.1.12** *The Contractor may carry whatever additional insurance he deems necessary to protect himself against hazards not covered for theft, collapse, water damage, materials and equipment stored on the site, and for materials and equipment stored off site, and against loss of owned or rented capital equipment and tools owned by mechanics or any tools, equipment, scaffolding, stagings, towers and forms owned or rented by the Contractor, the capital value of which is not included in the cost of the Work.*

**§ 11.1.13** *All insurance coverage procured by the Contractor shall be provided by insurance companies having policy holder ratings no lower than "A-" and financial rating no lower than, "X" in the Best's Insurance guide, latest edition in effect as the date of the Contract and subsequently in effect at the time of the renewal of the policies required by the Contract Documents.*

**§ 11.1.14** *If the Owner or the Contractor is damaged by the failure of the other party to purchase or maintain insurance required under Article 11, then the party who failed to purchase or maintain the insurance shall bear all reasonable costs (including attorney's fees and court and settlement costs) properly attributable thereto.*

**§ 11.1.15** *The Contractors must remove all "X, C & U" exclusions from their policies.*

## **§ 11.2 Owner's Insurance**

**§ 11.2.1** The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

**§ 11.2.2 Failure to Purchase Required Property Insurance.** If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

**§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance.** Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the

insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

## ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

### § 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time *or* Contract Sum.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

### § 12.2 Correction of Work

#### § 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense. *If prior to the date of Substantial Completion, the Contractor, a subcontractor or anyone for whom either is responsible, uses or damages any portion of the Work, including without limitation, mechanical, electrical, plumbing and other building systems, machinery, equipment or other mechanical device, the Contractor shall cause each such item to be restored to "like new condition" at no expense to the Owner.*

#### § 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~~ **two (2) years** after the date of ~~Substantial Completion~~ **Final Acceptance** of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

- .1 *The obligations under Item 12.2 shall cover any repairs and replacement to any part of the Work or other property caused by the defective Work.*
- .2 *Upon completion of any work under or pursuant to Item 12.2., the two-year correction period in connection with the work requiring correction shall be renewed and recommenced.*

§ 12.2.2.2 The ~~one year~~ **two-year** period for correction of Work shall be extended with respect to portions of Work first performed after ~~Substantial Completion~~ **Final Acceptance** by the period of time between ~~Substantial Completion~~ **Final Acceptance** and the actual completion of that portion of the Work.

§ 12.2.2.3 The ~~one year~~ **two-year** period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

### § 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made. ***This paragraph relates exclusively to the knowing acceptance of nonconforming work by the Owner. It has no applicability to work accepted by the Owner or Architect without the knowledge that such work fails to conform to the requirements of the Contract Documents.***

§ 12.3.1 ***The Contractor and its Surety guarantee to make good, repair and/or correct, at no cost or expense to the Owner, any and all latent defects hereafter discovered, provided only that notice in writing, shall be given by the Owner to the contractor within two years of the discovery of such defects.***

- .1 This obligation shall survive the termination of any or all other obligation or obligations under the contract Documents and it is agreed by the Contractor and its Surety that in the event the Owner is required to bring suit under this provision against the Contractor or its Surety to enforce this obligation, the contractor and its Surety hereby waive any defense of the status of limitations.***

## 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.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

### § 13.3 Rights and Remedies

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

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

### § 13.4 Tests and Inspections

§ 13.4.1 ***The Owner shall provide and contract for "structural tests and special inspections" as required by the NJ DCA Bulletin 03-5. The Contractor shall coordinate, schedule, and provide on-site supervision and man-power to facilitate the testing. All other Tests, inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that***

*the Architect may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Contractor. The Architect, Owner and Contractor shall be afforded a reasonable opportunity to attend, observe, and witness all inspections and tests of the Work. The Architect or Owner may at any time request and receive from the Contractor satisfactory evidence that materials, supplies or equipment are in conformance with the Contract Documents. The Conduct of any inspection of test and the receipt of any approval shall not operate to relieve the Contractor from its obligations under the Contract Documents unless specifically so stated by Owner in writing.*

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

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense. *The Contractor also agrees that the cost of testing services required for the convenience of the Contractor in his scheduling and performance of the Work and the cost of testing services related to remedial operations performed to correct deficiencies in the Work shall be borne by the Contractor.*

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

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

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

§ 13.5.1. *The Contractor shall not be entitled to any payment of interest for any reason, action or inaction by the Architect or the Owner unless required by law.*

§ 13.5.2 *Any payments withheld for time delays, faulty materials, or workmanship, shall not bear interest for period of delay or non-acceptance.*

#### § 13.6 WRITTEN NOTICE

*Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.*

### ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

#### § 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract *in the manner provided in Subparagraph 14.1.2 if repeated suspensions, delays or interruptions by the Owner as described in Paragraph 14.3 constitute in the aggregate more than 100% of the total number of days scheduled for completion or 120 days in any 365-day period, whichever is less, or if all the Work is entirely stopped for a continuous period of ~~30~~ 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:*

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;

- 3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment (*without cause*) within the time stated in the Contract Documents; or

**§ 14.1.2** *If one of the above reasons exist, the Contractor may, upon fourteen (14) days written notice to the Owner and Architect, terminate the Contract, unless this reason is cured prior to the expiration of the notice, and recover from the Owner payment of work properly executed in accordance with the Contract Documents (the basis for such payment shall be as provided in the Contract) and for payment for cost directly related to work thereafter performed by Contractor in terminating such work including reasonable demobilization and cancellation charges provided said work is authorized in advance by Architect and Owner.*

**§ 14.1.3** *The Owner shall not be responsible for damages for loss of anticipated profits on work not performed on account of any termination described in Subparagraph 14.1.1 and 14.1.2.*

**§ 14.1.4** If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

## **§ 14.2 Termination by the Owner for Cause**

**§ 14.2.1** The Owner may terminate the Contract if the Contractor

- .1 refuses or fails to supply enough properly skilled workers or proper materials *and/or equipment*;
- .2 fails to make *prompt* payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents *disregards the instructions of Architect or Owner (when such instructions are based on the requirements of the Contract Documents)*.
- .5 *Is adjudged bankrupt or insolvent, or makes a general assignment for the benefit of Contractor's creditors, or a trustee or a receiver is appointed for Contractor or for any of its property, or files a petition to take advantage of any debtor's act, or to recognize under bankruptcy or similar laws; or*
- .6 *Breaches any warranty made by the Contractor under or pursuant to the Contract Documents.*
- .7 *Fails to furnish the Owner with assurances satisfactory to the Owner evidencing the Contractor's ability to complete the Work in compliance with the requirements of the Contract Documents.*
- .8 *Fails after the commencement of the Work to proceed continuously with the construction and completion of the work for more than 10 days except as permitted under the Contract Documents.*
- .9 *Otherwise does not fully comply with the Contract Documents.*

**§ 14.2.2** When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

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

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

**§ 14.2.4.1** *If the costs of finishing the Work, including compensation for the services of any consultants and the Architect's services and expenses made necessary thereby, and the other costs and expenses identified*

*hereinafter, exceed the unpaid balance of the Contract Sum, the contractor and its Surety shall pay the difference to the Owner upon demand. The costs of finishing the Work include, without limitation, all reasonable attorney's fees, additional title costs, insurance, additional interest because of any delay in completing the Work, and all other direct and indirect consequential costs, including, without limitation, Liquidated Damages for untimely completion as specified in the Contract Documents, incurred by the Owner by reason of, or arising from, or relating to the termination of the Contractor as stated herein*

**§ 14.3 Suspension by the Owner for Convenience**

**§ 14.3.1** The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

**§ 14.4 Termination by the Owner for Convenience**

**§ 14.4.1** The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

**§ 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.

**§ 14.4.3.1** *In case of such termination for the Owner's convenience, the Contractor shall be entitled to Owner payment for Work performed as of the date of termination in accordance with the contract Documents. The Contractor shall, as a condition of receiving the payments referred to herein, execute and deliver all such papers, turn over all plans, documents and files of whatsoever nature required by the Owner, and take all such steps, including the legal assignment of its contractual rights, as the Owner may require for the purpose of fully vesting in the Owner the rights and benefits of the Contractor. The Contractor warrants that it will enter into no subcontracts or other agreements that would adversely impact the Owner's rights or increase the Owner's obligations under this paragraph. In no event shall the Owner be liable to the Contractor for lost or anticipated profits or consequential damages, or for any amount in excess of the compensation due to the Contractor in accord with the Contract Documents for the Work performed as of the date of termination. The warranty and indemnity obligations of the Contractor and Surety shall survive and continue, notwithstanding any termination pursuant to this paragraph, with respect to the Work performed as of the date of termination.*

**§ 14.4.4** *If Owner terminates the Contract for cause pursuant to Paragraph 14.2 and it is subsequently determined that the Owner was not authorized to terminate the Contract as provided in Paragraph 14.2, the Owner's termination shall be treated as a termination for convenience under this Paragraph 14.4 and the rights and obligations of the parties shall be the same as if the Owner has issued a notice of termination to the Contractor as provided in this Paragraph 14.4.*

**§ 14.5** *Contractor shall promptly pay to Owner all costs and reasonable attorney's fees incurred in connection with any action or proceeding in which Owner prevails, based on a breach of the Contract or other dispute arising out of or in connection with the Contract.*

**§ 14.6** *In the event of the appointment of a trustee and/or receiver or any similar occurrence affecting the management of the account of the Contractor pertaining to the Work, it shall be the obligation of the Contractor, its representatives, receivers, sureties, or successors in interest to continue the progress of the Work without delay and specifically to make timely payment to Subcontractors and Suppliers of all amounts that are lawfully due them and to provide the Owner and all Subcontractors and Suppliers whose work may be affected with timely notice of the status of receivership, bankruptcy, etc., and the status of their individual accounts.*

**§ 14.7** *Regularly scheduled job meetings shall be held at a location and time convenient to the Owner's representatives, the Architect and the Contractor. The Contractor shall attend such meetings or be represented by a person in authority who can speak for and make decisions for the Contractor.*

## ARTICLE 15 CLAIMS AND DISPUTES

### § 15.1 Claims

#### § 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

#### § 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the *law and* requirements of *the State of New Jersey* ~~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 No act or omission by the Owner or Architect, or by anyone acting on behalf of either shall be deemed or construed as a waiver or limitation of any right or remedy under the Contract Documents, or as an admission, acceptance, or approval with respect to any breach of the Contract for Construction or failure to comply with the Contract Documents by the Contractor, unless the Owner expressly agrees, in writing.*

*§ 15.1.2.2 The Owner's exercise, or failure to exercise, any rights, claims or remedies it may have arising out of or relating to the Contract documents shall not release, prejudice, or discharge the Owner's other rights and remedies, nor shall it give rise to any right, claim, remedy or defense by any other person, including the Contractor, its Surety, any Subcontractor, or any other person or entity.*

*§ 15.1.2.3 Whenever possible, each provision of the Contract Documents shall be interpreted in a manner as to be effective and valid under applicable law. If, however, any provision of the Contract Documents, or portion thereof, is prohibited or found invalid by law, only such invalid provision or portion thereof shall be ineffective, and shall not invalidate or affect the remaining provision of the Contract Documents or valid portions of such provision, which shall be deemed severable. Further, if any provision of this Contract is deemed inconsistent with applicable law, applicable law shall control.*

*§ 15.1.2.4 Contractor shall promptly pay to Owner all costs and reasonable attorney's fees incurred in connection with any action or proceeding in which Owner prevails, based on a breach of the Contract or other dispute arising out of or in connection with the Contract.*

*§ 15.1.2.5 In the event of the appointment of a trustee and/or receiver or any similar occurrence affecting the management of the account of the Contractor pertaining to the Work, it shall be the obligation of the Contractor, its representatives, receivers, sureties, or successors in interest to continue the progress of the Work without delay and specifically to make timely payment to Subcontractors and Suppliers of all amounts that are lawfully due them and to provide the Owner and all Subcontractors and Suppliers whose work may be affected with timely notice of the status of receivership, bankruptcy, etc., and the status of their individual accounts.*

#### § 15.1.3 Notice of Claims

*§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within ~~21~~ 5 days after occurrence of the event giving rise to such Claim or within ~~21~~ 5 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.*

*§ 15.1.3.2 Injury or Damage to Person or Property. If either party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is*

***legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding five (5) days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.***

**§ 15.1.3.2** Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

**§ 15.1.4 Continuing Contract Performance**

**§ 15.1.4.1** Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

**§ 15.1.4.2** The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the ***final resolution of the claim.*** ~~decision of the Initial Decision Maker.~~

**§ 15.1.4.3** ***Claims for Concealed or Unknown Conditions. Subject to the Contractor's obligations under Articles 1.9.2 and 2.3.4, if conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, which 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, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than five (5) days after first observance of the conditions. The Architect will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall so notify the Owner and Contractor in writing, stating the reasons. Claims by either party in opposition to such determination must be made within 5 days after the Architect has given notice of the decision. If the conditions encountered are materially different, the Contract Sum and Contract Time shall be equitably adjusted, but if the Owner and Contractor cannot agree on an adjustment in the Contract Sum or Contract Time, the adjustment shall be referred to the Architect for initial determination, subject to further proceedings pursuant to Section 15.2.5.1.***

**§ 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~~ ***herein shall be given to the Owner and Architect before proceeding to execute the portion of the Work that is the subject of the Claim and within five (5) days after the occurrence of the event giving rise to such Claim for increase in the Construct Sum. The foregoing written notice shall contain a written statement from the Contractor setting forth in detail the nature and cause of the Claim and an itemized statement of the increase requested. No such written notice shall form the basis of an increase to the Contract Sum unless and until such increase has been authorized by a written Change Order executed and issued according to the terms and conditions set forth herein. The Contractor hereby acknowledges that the Contractor shall not have any right to and the Owner will not consider any requests for an increase in the Contract Sum that is not submitted in compliance with the foregoing requirements.*** . Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

**§ 15.1.6 Claims for Additional Time**

**§ 15.1.6.1** If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. ***Said notice shall itemize all claims and shall contain sufficient detail and substantiating data to permit evaluation of same by Owner and Architect. No such claim shall be valid unless so made*** 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. ***Any change in the Contract Sum resulting from such claim shall be authorized only by Change Order or Construction Change Directive, as the case may be. All required notices for additional costs shall be made by Certified Mail.***

**§ 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 *as determined by reference to historical data*. The term "historical data" as used in the previous sentence shall be construed according to this formula: Average rainfall (or snow or low temperature) for the past five years.

## § 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, ~~and 11.5~~, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to *litigation* of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

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

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

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

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to *litigation*. ~~mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.~~

*§15.2.5.1 All claims and disputes and other matters in question between the Contractor and the Owner arising out of or relating to the Contract Documents or a breach thereof with regard to the Architect's decision, shall be decided through suit in New Jersey Superior Court venued in the County that the Owner occupies and Contractor consents to the jurisdiction of the New Jersey Superior Court venued in the County that the Owner occupies. The Contractor shall carry on all work and maintain its progress during such suit and the Owner shall continue to make payments not related to the dispute of the Contractor in accordance with Contract Documents.*

§ 15.2.7 In the event of a Claim against the Contractor, the Owner *and Architect* 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 *and Architect* 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 *prior to resolution of the claim by the Architect*.

**§ 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.

4811-8023-3858, v. 1



TO OWNER: PROJECT: APPLICATION NO: Distribution to:  
 FROM CONTRACTOR: VIA ARCHITECT: PERIOD TO:  OWNER  
 PROJECT NOS.:  ARCHITECT  
 CONTRACT DATE:  CONTRACTOR

CONTRACT FOR: The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

**CONTRACTOR'S APPLICATION FOR PAYMENT**  
 Application is made for payment, as shown below, in connection with the Contract Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM ..... \$ \_\_\_\_\_

2. Net change by Change Orders ..... \$ \_\_\_\_\_

3. CONTRACT SUM TO DATE (Line 1 ± 2) ..... \$ \_\_\_\_\_

4. TOTAL COMPLETED & STORED TO DATE ..... \$ \_\_\_\_\_  
 (Column G on G703)

5. RETAINAGE:  
 a. \_\_\_\_\_ % of Completed Work ..... \$ \_\_\_\_\_  
 (Columns D + E on G703)  
 b. \_\_\_\_\_ % of Stored Material ..... \$ \_\_\_\_\_  
 (Column F on G703)  
 Total Retainage (Line 5a + 5b or Total in Column I of G703) ..... \$ \_\_\_\_\_

6. TOTAL EARNED LESS RETAINAGE ..... \$ \_\_\_\_\_  
 (Line 4 less Line 5 Total)

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT  
 (Line 6 from prior Certificate) ..... \$ \_\_\_\_\_

8. CURRENT PAYMENT DUE ..... \$ \_\_\_\_\_

9. BALANCE TO FINISH, INCLUDING RETAINAGE  
 (Line 3 less Line 6) ..... \$ \_\_\_\_\_

| CHANGE ORDER SUMMARY                               | ADDITIONS | DEDUCTIONS |
|--|-----------|------------|
| Total changes approved in previous months by Owner |           |            |
| Total approved this Month                          |           |            |
| TOTALS   |           |            |
| NET CHANGES by Change Order                        |           |            |

**ARCHITECT'S CERTIFICATE FOR PAYMENT**

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED ..... \$ \_\_\_\_\_  
 (Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform to the amount certified.)

ARCHITECT: \_\_\_\_\_ Date: \_\_\_\_\_  
 By: \_\_\_\_\_

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

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# INSTRUCTION SHEET

## AIA DOCUMENTS G702 and G703

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### A. GENERAL INFORMATION

#### 1. Purpose and Related Documents

AIA Document G702, Application and Certificate for Payment, is to be used in conjunction with AIA Document G703, Continuation Sheet. These documents are designed to be used on a Project where a Contractor has a direct Agreement with the Owner. Procedures for their use are covered in AIA Document A201, General Conditions of the Contract for Construction, 1987 Edition.

#### 2. Use of Current Documents

Prior to using any AIA document, the user should consult the AIA, an AIA component chapter or a current AIA Documents List to determine the current edition of each document.

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### B. COMPLETING THE G702 FORM:

After the Contractor has completed AIA Document G703, Continuation Sheet, summary information should be transferred to AIA Document G702, Application and Certificate for Payment.

The Contractor should sign G702, have it notarized and submit it, together with G703, to the Architect.

The Architect should review G702 and G703 and, if they are acceptable, complete the Architect's Certificate for Payment on G702. The Architect may certify a different amount than that applied for pursuant to Paragraphs 9.5 and 9.6 of A201. The Architect should then initial all figures on G702 and G703 that have been changed to conform to the amount certified and attach an explanation. The completed G702 and G703 should be forwarded to the Owner.

### C. COMPLETING THE G703 FORM:

**Heading:** This information should be completed to be consistent with similar information on AIA Document G702, Application and Certificate for Payment.

**Columns A, B & C:** These columns should be completed by identifying the various portions of the Project and their scheduled value consistent with the schedule of values submitted to the Architect at the commencement of the Project or as subsequently adjusted. The breakdown may be by sections of the Work or by Subcontractors and should remain consistent throughout the Project. Multiple pages should be used when required.

Column C should be subtotaled at the bottom when more than one page is used and totaled on the last page. Initially, this total should equal the original Contract Sum. The total of column C may be adjusted by Change Orders during the Project.

**Column D:** Enter in this column the amount of completed work covered by the previous application (columns D – E) from the previous application). Values from column F (Materials Presently Stored) from the previous application should not be entered in this column.

**Column E:** Enter here the value of Work completed at the time of this application, including the value of materials incorporated into the project which were listed on the previous application under Materials Presently Stored (column F).

**Column F:** Enter here the value of Materials Presently Stored for which payment is sought. The total of the column *must* be recalculated at the end of each pay period. This value covers both materials newly stored for which payment is sought and materials previously stored which are not yet incorporated into the Project. Mere payment by the Owner for stored materials does not result in a deduction from this column. Only as materials are incorporated into the Project is their value deducted from this column and incorporated into column E (Work Completed—This Period).

**Column G:** Enter here the total of columns D, E and F. Calculate the percentage completed by dividing column G by column C.

**Column H:** Enter here the difference between column C (Scheduled Value) and column G (Total Completed and Stored to Date).

**Column I:** This column is normally used only for contracts where variable retainage is permitted on a line-item basis. It need not be completed on projects where a constant retainage is withheld from the overall contract amount.

**Change Orders:** Although Change Orders could be incorporated by changing the schedule of values each time a Change Order is added to the Project, this is not normally done. Usually, Change Orders are listed separately, either on their own G703 form or at the end of the basic schedule. The amount of the original contract adjusted by Change Orders is to be entered in the appropriate location on the G702 form.

**Construction Change Directives:** Amounts not in dispute that have been included in Construction Change Directives should be incorporated into one or more Change Orders. Amounts remaining in dispute should be dealt with according to Paragraph 7.3 in A201.

### D. MAKING PAYMENT

The Owner should make payment directly to the Contractor based on the amount certified by the Architect on AIA Document G702, Application and Certificate for Payment. The completed form contains the name and address of the Contractor. Payment should not be made to any other party unless specifically indicated on G702.

### E. EXECUTION OF THE DOCUMENT

Each person executing the Agreement should indicate the capacity in which they are acting (i.e., president, secretary, partner, etc.) and the authority under which they are executing the Agreement. Where appropriate, a copy of the resolution authorizing the individual to act on behalf of the firm or entity should be attached.

# CONTINUATION SHEET

AIA DOCUMENT G703 (Instructions on reverse side)

PAGE OF PAGES

AIA Document G702, APPLICATION AND CERTIFICATE FOR PAYMENT,

containing Contractor's signed Certification, is attached.

In tabulations below, amounts are stated to the nearest dollar.

Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO.:

APPLICATION DATE:

PERIOD TO:

ARCHITECT'S PROJECT NO.:

| A<br>ITEM<br>NO. | B<br>DESCRIPTION OF WORK | C<br>SCHEDULED<br>VALUE | D<br>WORK COMPLETED                     |             | E<br>THIS PERIOD | F<br>MATERIALS<br>PRESENTLY<br>STORED<br>(NOT IN<br>D OR E) | G<br>TOTAL<br>COMPLETED<br>AND STORED<br>TO DATE<br>(D+E+F) | H<br>BALANCE<br>TO<br>FINISH<br>(C - G) | I<br>RETAINAGE<br>(IF VARIABLE)<br>RATE) |
|------------------|--------------------------|-------------------------|---|-------------|------------------|---|---|---|--|
|                  |                          |                         | FROM PREVIOUS<br>APPLICATION<br>(D + E) | THIS PERIOD |                  |   |   |   |  |
|                  |                          |                         |   |             |                  |   |   |   |  |
|                  |                          |                         |   |             |                  |   |   |   |  |

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G703-1992

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# INSTRUCTION SHEET

## FOR AIA DOCUMENT G703

### A. GENERAL INFORMATION

#### 1. Purpose and Related Documents

AIA Document G702, Application and Certificate for Payment, is to be used in conjunction with AIA Document G703, Continuation Sheet. These documents are designed for use on Projects where the Contractor has a direct Agreement with the Owner. Procedures for their use are covered in AIA Document A201, General Conditions of the Contract for Construction, 1987 Edition.

#### 2. Use of Current Documents

The user should consult the AIA, an AIA component chapter or a current AIA Documents List to determine the current edition of each document.

#### 3. Limited License for Reproduction

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### B. COMPLETING THE G703 FORM:

**Heading:** This information should be completed in a manner consistent with similar information on AIA Document G702, Application and Certificate for Payment.

**Columns A, B & C:** These columns should be completed by identifying the various portions of the Project and their scheduled values consistent with the schedule of values submitted to the Architect at the commencement of the Project or as subsequently adjusted. The breakdown may be by sections of the Work or by Subcontractors and should remain consistent throughout the Project. Multiple pages should be used when required.

Column C should be subtotaled at the bottom when more than one page is used and totaled on the last page. Initially, this total should equal the original Contract Sum. The total of column C may be adjusted by Change Orders during the Project.

**Column D:** Enter in this column the amount of completed Work covered by the previous application (columns D & E from the previous application). Values from column F (Materials Presently Stored) from the previous application should not be entered in this column.

**Column E:** Enter here the value of Work completed at the time of this application, including the value of materials incorporated in the project that were listed on the previous application under Materials Presently Stored (column F).

**Column F:** Enter here the value of Materials Presently Stored for which payment is sought. The total of the column must be recalculated at the end of each pay period. This value covers both materials newly stored for which payment is sought and materials previously stored which are not yet incorporated into the Project. Mere payment by the Owner for stored materials does not result in a deduction from this column. Only as materials are incorporated into the Project is their value deducted from this column and incorporated into column E (Work Completed—This Period.)

**Column G:** Enter here the total of columns D, E and F. Calculate the percentage completed by dividing column G by column C.

**Column H:** Enter here the difference between column C (Scheduled Value) and column G (Total Completed and Stored to Date).

**Column I:** This column is normally used only for contracts where variable retainage is permitted on a line item basis. It need not be completed on projects where a constant retainage is withheld from the overall contract amount.

**Change Orders:** Although Change Orders could be incorporated by changing the schedule of values each time a Change Order is added to the Project, this is not normally done. Usually, Change Orders are listed separately, either on their own G703 form or at the end of the basic schedule. The amount of the original contract adjusted by Change Orders is to be entered in the appropriate location on the G702 form.

**Construction Change Directives:** Amounts not in dispute that have been included in Construction Change Directives should be incorporated into one or more Change Orders. Amounts remaining in dispute should be dealt with according to Paragraph 7.3 in A201.

The following is an example of a Continuation Sheet for work in progress. Please note that dollar amounts shown below are for illustrative purposes only, and are not intended to reflect actual construction costs.

| ITEM NO. | DESCRIPTION OF WORK  | SCHEDULED VALUE | WORK COMPLETED                    |             | MATERIALS PRESENTLY STORED (NOT IN D OR E) | TOTAL COMPLETED AND STORED TO DATE (D + E + F) |     | BALANCE TO FINISH (C - G) | RETAINAGE (IF VARIABLE) RATE              |
|----------|----------------------|-----------------|-----------------------------------|-------------|--|--|-----|---------------------------|---|
|          |                      |                 | FROM PREVIOUS APPLICATION (D + E) | THIS PERIOD |  | % (G ÷ C)                                      |     |                           |   |
| 1        | MOBILIZATION         | 5,000           | 5,000                             | 0           | 0  | 5,000  | 100 | 0                         | NOT APPLICABLE TO CONSTANT RATE RETAINAGE |
| 2        | STUMP REMOVAL        | 5,000           | 5,000                             | 0           | 0  | 5,000  | 100 | 0                         |   |
| 3        | EARTH WORK           | 15,000          | 10,000                            | 5,000       | 0  | 15,000   | 100 | 0                         |   |
| 4        | LOWER RETAINING WALL | 10,000          | 0                                 | 5,000       | 0  | 5,000  | 50  | 5,000                     |   |
| 5        | CURBS & MISC. CONC.  | 5,000           | 0                                 | 0           | 0  | 0  | 0   | 5,000                     |   |
| 6        | PAVING, UPPER DRIVE  | 20,000          | 0                                 | 0           | 0  | 0  | 0   | 20,000                    |   |
| 7        | PAVING, LOWER DRIVE  | 20,000          | 0                                 | 0           | 0  | 0  | 0   | 20,000                    |   |
| 8        | PAVERS               | 20,000          | 0                                 | 0           | 10,000                                     | 10,000   | 50  | 10,000                    |   |
| 9        | BRICK WORK           | 5,000           | 0                                 | 0           | 0  | 0  | 0   | 5,000                     |   |
|          |                      | 105,000         | 20,000                            | 10,000      | 10,000                                     | 40,000   |     | 65,000                    |   |

## SECTION 011000 - SUMMARY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Contractor's use of site and premises.
4. Coordination with occupants.
5. Work restrictions.
6. Specification and Drawing conventions.

- B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
2. Section 017300 "Execution" for coordination of Owner-installed products.

#### 1.3 PROJECT INFORMATION

- A. Project Identification: Media Center Alterations at Hamilton Elementary School.

1. Project Location: 23 Northgate Drive, Voorhees, NJ 08043.

- B. Owner: Voorhees, New Jersey, 08043.

1. Owner's Representative: Helen G. Haley, CPA, Business Administrator.

- C. Architect: LAN Associates.

1. Architect's Representative: Jeff Potter, AIA, LEED AP BD+C, Senior Architect, (609) 680-0592.

#### 1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:

1. Selective demolition of carpet flooring system, and miscellaneous wall appurtenances, and other systems as indicated in plans;
2. Salvage of miscellaneous wall appurtenances for Owner;
3. Existing lighting & HVAC to remain;
4. New suspended acoustic ceiling panel systems, and sub structure;
5. New Media Center Alteration, including partial height metal stud & gypsum wall board partitions with bracing back to existing perimeter walls. Walls include a mixture of the following finishes: paint, vinyl wall graphics, and dry erase (marker board) paint;
6. New power, switches, supplemental lighting, electrical work & modifications;
7. New carpet tile flooring finishes with rubber base;
8. Custom millwork Reception Desk & Computer Station with solid surface or plastic laminate counter;
9. Soft seating & bookcases by Owner;
10. Other work as indicated in the Contract Documents

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.5 CONTRACTOR'S USE OF SITE AND PREMISES

A. Restricted Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

B. Limits on Use of Site: Limit use of Project site to Work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Limits on Use of Site: Confine construction operations to main building parking lot and driveway for access to project work areas.
2. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.
  - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
  - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

C. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.6 COORDINATION WITH OCCUPANTS

A. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.



2. Provide not less than 48 hours' notice to Owner of activities that will affect Owner's operations.

## 1.7 WORK RESTRICTIONS

- A. Comply with restrictions on construction operations.
  1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work to between 7 a.m. to 11:00 p.m., Monday through Friday until September 4, 2020 unless otherwise indicated. All work starting September 8, 2020 will be second shift and shall be limited to between 3:00 p.m. to 11:00 p.m. Work hours may be modified to meet Project requirements if approved by Owner and authorities having jurisdiction.
  1. Weekend Hours: At Contractor request and discretion and at no additional cost to the Owner, limit work between 8:00 a.m. and 6:00 p.m. on Saturdays. Work shall be approved by Owner in advance.
  2. Early Morning Hours: Noise generating activities are not permitted beyond work restriction hours defined above, unless approved in writing by the Owner and by the Authority Having Jurisdiction. Early Morning Hours requested will be at no additional cost to the Owner.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging for temporary utility services according to requirements indicated:
  1. Notify Owner not less than two days in advance of proposed utility interruptions.
  2. Obtain Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.
  1. Notify Owner not less than two days in advance of proposed disruptive operations.
  2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances on Project site is not permitted.
- F. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.

## 1.8 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

2. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
  3. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 00 Contracting Requirements: General provisions of the Contract, including General and Supplementary Conditions, apply to all Sections of the Specifications.
  - C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
  - D. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
    1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
    2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.
    3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

#### 1.9 PROJECT SCHEDULE

- A. Anticipated Notice of Award: Tuesday, July 14, 2020.
- B. Execution of Contracts: Mid-Late July 2020
- C. Site mobilization: Tuesday, July 28, 2020.
- D. Second Shift Work commencement: September 8, 2020.
- E. Partial Substantial Completion (Occupancy): Wednesday, September 2, 2020.
- F. Substantial Completion (long lead items, remainder of project) and Site Demobilization: Friday, October 2, 2020.
- G. Final Completion / Project Close-Out: Monday, November 2, 2020

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

## SECTION 012100 - ALLOWANCES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
  - 1. Lump-sum allowances.

#### 1.3 DEFINITIONS

- A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

#### 1.4 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

#### 1.5 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

#### 1.7 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
  - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

#### PART 2 - PRODUCTS (Not Used)

#### PART 3 - EXECUTION

##### 3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

##### 3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

##### 3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Lump-Sum Allowance: Include the sum of \$7,500.00 for unforeseen conditions encountered during the work. The work shall be performed as directed by the architect.
  - 1. This allowance includes material, receiving, handling, and installation costs, and Contractor overhead and profit.

END OF SECTION 012100

## SECTION 012500 - SUBSTITUTION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
  - 1. Section 012100 "Allowances" for products selected under an allowance.

#### 1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents.
  - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.

#### 1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit documentation identifying product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use form acceptable to Architect.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
    - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested.
  - f. Certificates and qualification data, where applicable or requested.
  - g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.
  - h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
  - i. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
  - j. Cost information, including a proposal of change, if any, in the Contract Sum.
  - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
  - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

## 1.5 QUALITY ASSURANCE

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

## 1.6 PROCEDURES

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

## 1.7 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
  - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- b. Substitution request is fully documented and properly submitted.
- c. Requested substitution will not adversely affect Contractor's construction schedule.
- d. Requested substitution has received necessary approvals of authorities having jurisdiction.
- e. Requested substitution is compatible with other portions of the Work.
- f. Requested substitution has been coordinated with other portions of the Work.
- g. Requested substitution provides specified warranty.
- h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500





## SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
  - 1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.
  - 2. Section 013100 "Project Management and Coordination" for requirements for forms for contract modifications provided as part of web-based Project management software.

#### 1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710.

#### 1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
  - 2. Within time specified in Proposal Request or 10 days, when not otherwise specified after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor and supervision directly attributable to the change.
    - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

- e. Quotation Form: Use forms acceptable to Architect.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
  - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
  - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
  - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  - 4. Include costs of labor and supervision directly attributable to the change.
  - 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
  - 6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
  - 7. Proposal Request Form: Use form acceptable to Architect.

#### 1.5 ADMINISTRATIVE CHANGE ORDERS

- A. Allowance Adjustment: See Section 012100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.

#### 1.6 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Change Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

#### 1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
  - 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
  - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600



## SECTION 012900 - PAYMENT PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
  - 1. Document 004373 "Proposed Schedule of Values Form" for requirements for furnishing proposed schedule of values with bid.
  - 2. Section 012100 "Allowances" for procedural requirements governing the handling and processing of allowances.
  - 3. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
  - 4. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

#### 1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
  - 1. Coordinate line items in the schedule of values with items required to be indicated as separate activities in Contractor's construction schedule.
  - 2. Submit the schedule of values to Architect at earliest possible date, but no later than 14 days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
  - 1. Identification: Include the following Project identification on the schedule of values:
    - a. Project name and location.
    - b. Owner's name.
    - c. Owner's Project number.
    - d. Name of Architect.
    - e. Architect's Project number.
    - f. Contractor's name and address.
    - g. Date of submittal.
  - 2. Arrange schedule of values consistent with format of AIA Document G703.

3. Arrange the schedule of values in tabular form, with separate columns to indicate the following for each item listed:
  - a. Related Specification Section or division.
  - b. Description of the Work.
  - c. Name of subcontractor.
  - d. Name of manufacturer or fabricator.
  - e. Name of supplier.
  - f. Change Orders (numbers) that affect value.
  - g. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent. Round dollar amounts to whole dollars, with total equal to Contract Sum.
    - 1) Labor.
    - 2) Materials.
    - 3) Equipment.
4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
  - a. Differentiate between items stored on-site and items stored off-site.
6. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
7. Temporary Facilities: Show cost of temporary facilities and other major cost items that are not direct cost of actual work-in-place as separate line items.
8. Closeout Costs. Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling five percent of the Contract Sum and subcontract amount.
9. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least one separate line item for each Change Order and Construction Change Directive.

#### 1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments, as certified by Architect and paid for by Owner.
- B. Payment Application Times: The date for each progress payment is indicated in the Owner/Contractor Agreement. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
  1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.

2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
  3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
  4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment for stored materials.
  2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
  3. Provide summary documentation for stored materials indicating the following:
    - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
    - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
    - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- F. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
  2. Schedule of values.
  3. Contractor's construction schedule (preliminary if not final).
  4. Products list (preliminary if not final).
  5. Sustainable design action plans, including preliminary project materials cost data.
  6. Schedule of unit prices.
  7. Submittal schedule (preliminary if not final).
  8. List of Contractor's staff assignments.
  9. List of Contractor's principal consultants.
  10. Copies of building permits.
  11. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
  12. Initial progress report.
  13. Report of preconstruction conference.
- H. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
    - a. Complete administrative actions, submittals, and Work preceding this application, as described in Section 017700 "Closeout Procedures."
  2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
  2. Certification of completion of final punch list items.
  3. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
  4. Updated final statement, accounting for final changes to the Contract Sum.
  5. AIA Document G706.
  6. AIA Document G706A.
  7. AIA Document G707.
  8. Evidence that claims have been settled.
  9. Final liquidated damages settlement statement.
  10. Proof that taxes, fees, and similar obligations are paid.
  11. Waivers and releases.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900



## SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project, including, but not limited to, the following:

1. General coordination procedures.
2. Coordination drawings.
3. RFIs.
4. Digital project management procedures.
5. Web-based Project management software package.
6. Project meetings.

- B. Related Requirements:

- 1.
2. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
3. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
4. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

#### 1.3 DEFINITIONS

- A. RFI: Request for Information. Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.

- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses, cellular telephone numbers, and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

## 1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results, where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
  - 2. Electrical Work: Show the following:
    - a. Runs of vertical and horizontal conduit 1-1/4 inches in diameter and larger.
    - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
    - c. Panel board, switchboard, switchgear, transformer, busway, generator, and motor-control center locations.
    - d. Location of pull boxes and junction boxes, dimensioned from column center lines.

## 1.6 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
  - 1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
  - 2. Coordinate and submit RFIs in a prompt manner to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
  - 1. Project name.
  - 2. Owner name.
  - 3. Owner's Project number.
  - 4. Name of Architect.

5. Architect's Project number.
  6. Date.
  7. Name of Contractor.
  8. RFI number, numbered sequentially.
  9. RFI subject.
  10. Specification Section number and title and related paragraphs, as appropriate.
  11. Drawing number and detail references, as appropriate.
  12. Field dimensions and conditions, as appropriate.
  13. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  14. Contractor's signature.
  15. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
    - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: AIA Document G716.
1. Attachments shall be electronic files in PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.
    - d. Requests for coordination information already indicated in the Contract Documents.
    - e. Requests for adjustments in the Contract Time or the Contract Sum.
    - f. Requests for interpretation of Architect's actions on submittals.
    - g. Incomplete RFIs or inaccurately prepared RFIs.
  2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect or Construction Manager of additional information.
  3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 5 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log bi-weekly.
1. Project name.
  2. Name and address of Contractor.
  3. Name and address of Architect.
  4. RFI number, including RFIs that were returned without action or withdrawn.
  5. RFI description.
  6. Date the RFI was submitted.
  7. Date Architect's response was received.
  8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

## 1.7 DIGITAL PROJECT MANAGEMENT PROCEDURES

- A. Architect's Data Files Not Available: Architect will not provide Architect's CAD drawing digital data files for Contractor's use during construction.
- B. PDF Document Preparation: Where PDFs are required to be submitted to Architect, prepare as follows:
  - 1. Assemble complete submittal package into a single indexed file, incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
  - 2. Name file with submittal number or other unique identifier, including revision identifier.
  - 3. Certifications: Where digitally submitted certificates and certifications are required, provide a digital signature with digital certificate on where indicated.

## 1.8 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
  - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times a minimum of 10 working days prior to meeting.
  - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Architect will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
  - 1. Attendees: Authorized representatives of Owner Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  - 2. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Responsibilities and personnel assignments.
    - b. Tentative construction schedule.
    - c. Phasing.
    - d. Critical work sequencing and long lead items.
    - e. Designation of key personnel and their duties.
    - f. Lines of communications.
    - g. Use of web-based Project software.
    - h. Procedures for processing field decisions and Change Orders.
    - i. Procedures for RFIs.
    - j. Procedures for testing and inspecting.

- k. Procedures for processing Applications for Payment.
  - l. Distribution of the Contract Documents.
  - m. Submittal procedures.
  - n. Preparation of Record Documents.
  - o. Use of the premises and existing building.
  - p. Work restrictions.
  - q. Working hours.
  - r. Owner's occupancy requirements.
  - s. Responsibility for temporary facilities and controls.
  - t. Procedures for moisture and mold control.
  - u. Procedures for disruptions and shutdowns.
  - v. Construction waste management and recycling.
  - w. Parking availability.
  - x. Office, work, and storage areas.
  - y. Equipment deliveries and priorities.
  - z. First aid.
  - aa. Security.
  - bb. Progress cleaning.
3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Progress Meetings: Conduct Construction Manager will conduct progress meetings at biweekly intervals.
- 1. Attendees: In addition to representatives of Owner, Owner's Commissioning Authority and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
  - 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
      - 1) Review schedule for next period.
    - b. Review present and future needs of each entity present, including the following:
      - 1) Interface requirements.
      - 2) Sequence of operations.
      - 3) Resolution of BIM component conflicts.
      - 4) Status of submittals.
      - 5) Status of sustainable design documentation.
      - 6) Deliveries.
      - 7) Off-site fabrication.
      - 8) Access.
      - 9) Site use.
      - 10) Temporary facilities and controls.
      - 11) Progress cleaning.
      - 12) Quality and work standards.
      - 13) Status of correction of deficient items.
      - 14) Field observations.

- 15) Status of RFIs.
  - 16) Status of Proposal Requests.
  - 17) Pending changes.
  - 18) Status of Change Orders.
  - 19) Pending claims and disputes.
  - 20) Documentation of information for payment requests.
3. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
    - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

## SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
  - 1. Contractor's Construction Schedule.
  - 2. Construction schedule updating reports.
  - 3. Daily construction reports.
- B. Related Requirements:
  - 1. Section 012900 "Payment Procedures" for schedule of values and requirements for use of cost-loaded schedule for Applications for Payment.

#### 1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction Project. Activities included in a construction schedule consume time and resources.
  - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
  - 2. Predecessor Activity: An activity that precedes another activity in the network.
  - 3. Successor Activity: An activity that follows another activity in the network.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
  - 1. Working electronic copy of schedule file.
  - 2. PDF file.
- B. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
- C. Construction Schedule Updating Reports: Submit with Applications for Payment.
- D. Daily Construction Reports: Submit at monthly intervals.

## 1.5 COORDINATION

- A. Coordinate Contractor's Construction Schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.
  - 1. Secure time commitments for performing critical elements of the Work from entities involved.
  - 2. Coordinate each construction activity in the network with other activities, and schedule them in proper sequence.

## 1.6 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Final Completion.
  - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each floor or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
  - 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
  - 2. Temporary Facilities: Indicate start and completion dates for the following as applicable:
    - a. Securing of approvals and permits required for performance of the Work.
    - b. Temporary facilities.
    - c. Construction of mock-ups, prototypes and samples.
    - d. Owner interfaces and furnishing of items.
    - e. Interfaces with Separate Contracts.
    - f. Regulatory agency approvals.
    - g. Punch list.
  - 3. Procurement Activities: Include procurement process activities for the following long lead-time items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
  - 4. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with submittal schedule.
  - 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
  - 6. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and Final Completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
  - 1. Phasing: Arrange list of activities on schedule by phase.
  - 2. Work Restrictions: Show the effect of the following items on the schedule:



- a. Coordination with existing construction.
  - b. Limitations of continued occupancies.
  - c. Uninterruptible services.
  - d. Partial occupancy before Substantial Completion.
  - e. Use-of-premises restrictions.
  - f. Provisions for future construction.
  - g. Seasonal variations.
  - h. Environmental control.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion, and the following interim milestones:
- 1. Partial Substantial Completion (Occupancy): Wednesday, September 2, 2020.
    - a. This milestone allows Owner's staff to occupy and utilize spaces for their intended purpose. Work completed per this milestone is all work required of the contract documents with the exception of Long Lead Time items including Manufactured Casework, and Countertops.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
- 1. Unresolved issues.
  - 2. Unanswered Requests for Information.
  - 3. Rejected or unreturned submittals.
  - 4. Notations on returned submittals.
  - 5. Pending modifications affecting the Work and the Contract Time.
- G. Contractor's Construction Schedule Updating: At bi-weekly intervals, update schedule to reflect actual construction progress and activities. Issue schedule before each regularly scheduled progress meeting.
- 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  - 3. As the Work progresses, indicate Final Completion percentage for each activity.
- H. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be accomplished.
- I. Distribution: Distribute copies of approved schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
- 1. Post copies in Project meeting rooms and temporary field offices.
  - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

## 1.7 GANTT-CHART SCHEDULE REQUIREMENTS

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's Construction Schedule within 14 days of date established for the Notice to Proceed.
  - 1. Base schedule on the startup construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
  - 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

## 1.8 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
  - 1. List of subcontractors at Project site.
  - 2. List of separate contractors at Project site.
  - 3. Approximate count of personnel at Project site.
  - 4. Equipment at Project site.
  - 5. Material deliveries.
  - 6. High and low temperatures and general weather conditions, including presence of rain or snow.
  - 7. Testing and inspection.
  - 8. Accidents.
  - 9. Meetings and significant decisions.
  - 10. Unusual events.
  - 11. Stoppages, delays, shortages, and losses.
  - 12. Meter readings and similar recordings.
  - 13. Emergency procedures.
  - 14. Orders and requests of authorities having jurisdiction.
  - 15. Change Orders received and implemented.
  - 16. Construction Change Directives received and implemented.
  - 17. Services connected and disconnected.
  - 18. Equipment or system tests and startups.
  - 19. Partial completions and occupancies.
  - 20. Substantial Completions authorized.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013200

## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

1. Submittal schedule requirements.
2. Administrative and procedural requirements for submittals.

- B. Related Requirements:

1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
2. Section 013100 "Project Management and Coordination" for submitting coordination drawings and subcontract list and for requirements for web-based Project software.
3. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
4. Section 017700 "Closeout Procedures" for submitting closeout submittals and maintenance material submittals.
5. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
6. Section 017900 "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

#### 1.3 DEFINITIONS

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

#### 1.4 SUBMITTAL SCHEDULE

- A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required

for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Initial Submittal Schedule: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Final Submittal Schedule: Submit concurrently with the first complete submittal of Contractor's construction schedule.
  - a. Submit revised submittal schedule as required to reflect changes in current status and timing for submittals.
4. Format: Arrange the following information in a tabular format:
  - a. Scheduled date for first submittal.
  - b. Specification Section number and title.
  - c. Submittal Category: Action; informational.
  - d. Name of subcontractor.
  - e. Description of the Work covered.
  - f. Scheduled date for Architect's final release or approval.

## 1.5 SUBMITTAL FORMATS

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

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

B. Options: Identify options requiring selection by Architect.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. Paper Submittals:

1. Place a permanent label or title block on each submittal item for identification; include name of firm or entity that prepared submittal.

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. Action Submittals: Submit three paper copies of each submittal unless otherwise indicated. Architect will return One copies.
  4. Informational Submittals: Submit two paper copies of each submittal unless otherwise indicated. Architect will not return copies.
  5. Transmittal for Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using facsimile of sample form included in Project Manual transmittal form.
- E. Electronic Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

## 1.6 SUBMITTAL PROCEDURES

- A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
1. Email: Prepare submittals as PDF package and transmit to Architect by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Architect.
    - a. Architect will return annotated file. Annotate and retain one copy of file as a digital Project Record Document file.
  2. Paper: Prepare submittals in paper form and deliver to Architect.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
  3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
  4. Coordinate transmittal of submittals for related parts of the Work specified in different Sections, 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. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. Resubmittal Review: Allow 15 days for review of each resubmittal.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
  2. Note date and content of revision in label or title block, and clearly indicate extent of revision.
  3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

## 1.7 SUBMITTAL REQUIREMENTS

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
  2. Mark each copy of each submittal to show which products and options are applicable.
  3. Include the following information, as applicable:
    - a. Manufacturer's catalog cuts.
    - b. Manufacturer's product specifications.
    - c. Standard color charts.
    - d. Statement of compliance with specified referenced standards.
    - e. Testing by recognized testing agency.
    - f. Application of testing agency labels and seals.
  4. Submit Product Data before Shop Drawings, and before or concurrently with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
  2. Paper Sheet Size: Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
    - a. Two opaque (bond) copies of each submittal. Architect will return one copy(ies).
- C. Samples: Submit Samples for review of type, color, pattern, and texture for a check of these characteristics with other materials.
1. Transmit Samples that contain multiple, related components, such as accessories together in one submittal package.
  2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
    - a. Project name and submittal number.

- b. Generic description of Sample.
  - c. Product name and name of manufacturer.
  - d. Sample source.
  - e. Number and title of applicable Specification Section.
  - f. Specification paragraph number and generic name of each item.
3. Email Transmittal: Provide PDF transmittal. Include digital image file illustrating Sample characteristics and identification information for record.
  4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
  5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units, showing the full range of colors, textures, and patterns available.
    - a. 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.
  6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
    - a. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned.
      - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
      - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
  2. Manufacturer and product name, and model number if applicable.
  3. Number and name of room or space.
  4. Location within room or space.
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of

assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.

G. Certificates:

1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
2. Installer Certificates: Submit written statements on manufacturer's letterhead, certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead, certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
4. Material Certificates: Submit written statements on manufacturer's letterhead, certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead, certifying that product complies with requirements in the Contract Documents.
6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of AWS B2.1/B2.1M on AWS forms. Include names of firms and personnel certified.

H. Test and Research Reports:

1. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
2. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

1.8 CONTRACTOR'S REVIEW

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

1.9 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return.



1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action, as follows:
  - a. No Exceptions Taken; Make Corrections Noted; Amend & Resubmit; Rejected - See Remarks.
2. Paper Submittals: Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action, as follows:
  - B. Informational Submittals: Architect will review each submittal and will not return it or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
  - C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
  - D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
  - E. Architect will return without review submittals received from sources other than Contractor.
  - F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300



## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
  - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.
  - 2. Section 012100 "Allowances" for allowance for metered use of temporary utilities.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.

### PART 2 - PRODUCTS (NOT USED)

### PART 3 - EXECUTION

#### 3.1 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
  - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

#### 3.2 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

END OF SECTION 015000

## SECTION 016000 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
  - 1. Section 011000 "Summary" for Contractor requirements related to Owner-furnished products.
  - 2. Section 012100 "Allowances" for products selected under an allowance.
  - 3. Section 012500 "Substitution Procedures" for requests for substitutions.
  - 4. Section 01770 "Closeout Procedures" for submitting warranties.

#### 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 that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility. Salvaged items or items reused from other projects are not considered new products. Items that are manufactured or fabricated to include recycled content materials are considered new products, unless indicated otherwise.
  - 3. Comparable Product: Product by named manufacturer that is demonstrated and approved through the comparable product submittal process described in Part 2 "Comparable Products" Article, 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 single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. Published attributes and characteristics of basis-of-design product establish salient characteristics of products.

1. Evaluation of Comparable Products: In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification. Manufacturer's published attributes and characteristics of basis-of-design product also establish salient characteristics of products for purposes of evaluating comparable products.
- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named product or product from another named manufacturer that does meet the requirements of the specifications; submit a comparable product request or substitution request, if applicable.
  - D. Comparable Product Request Submittal: An action submittal requesting consideration of a comparable product, including the following information:
    1. Identification of basis-of-design product or fabrication or installation method to be replaced, including Specification Section number and title and Drawing numbers and titles.
    2. Data indicating compliance with the requirements specified in Part 2 "Comparable Products" Article.
  - E. Basis-of-Design Product Specification Submittal: An action submittal complying with requirements in Section 013300 "Submittal Procedures."
  - F. Substitution: Refer to Section 012500 "Substitution Procedures" for definition and limitations on substitutions.
- 1.4 QUALITY ASSURANCE
- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
- 1.5 COORDINATION
- A. Modify or adjust affected work as necessary to integrate work of approved comparable products and approved substitutions.
- 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING
- A. Deliver, store, and handle products, using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
  - B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and that products are undamaged and properly protected.

C. Storage:

1. Provide a secure location and enclosure at Project site for storage of materials and equipment.
2. Store products to allow for inspection and measurement of quantity or counting of units.
3. Store materials in a manner that will not endanger Project structure.
4. Store products that are subject to damage by the elements under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation and with adequate protection from wind.
5. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.
8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

## 1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
1. Manufacturer's Warranty: Written standard warranty form furnished by individual manufacturer for a particular product and issued in the name of the Owner or endorsed by manufacturer to Owner.
  2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner and issued in the name of the Owner or endorsed by manufacturer to Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  2. Specified Form: When specified forms are included in the Project Manual, prepare a written document, using indicated form properly executed.
  3. See other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
  4. Where products are accompanied by the term "as selected," Architect will make selection.
  5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
  6. Or Equal: For products specified by name and accompanied by the term "or equal," "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
    - a. Submit additional documentation required by Architect in order to establish equivalency of proposed products. Unless otherwise indicated, evaluation of "or equal" product status is by the Architect, whose determination is final.
- B. Product Selection Procedures:
1. Sole Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
    - a. Sole manufacturer/source may be indicated by the phrase "Subject to compliance with requirements, provide products by the following."
  2. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered.
    - a. Limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, provide products by one of the following."
  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 may additionally 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.
    - a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.
- C. Visual Matching Specification: Where Specifications require the phrase "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.



- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or a similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

## 2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration of Comparable Products: 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 the following requirements:
  - 1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work.
  - 2. Detailed comparison of significant qualities of proposed product with those of the named basis-of-design product. Significant product qualities include attributes, such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
  - 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.
- B. Architect's Action on Comparable Products Submittal: If necessary, Architect will request additional information or documentation for evaluation, as specified in Section 013300 "Submittal Procedures."
  - 1. Form of Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
  - 2. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- C. Submittal Requirements, Single-Step Process: When acceptable to Architect, incorporate specified submittal requirements of individual Specification Section in combined submittal for comparable products. Approval by the Architect of Contractor's request for use of comparable product and of individual submittal requirements will also satisfy other submittal requirements.

## PART 3 - EXECUTION (Not Used)

END OF SECTION 016000



## SECTION 017300 - EXECUTION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:
  - 1. Installation of the Work.
  - 2. Cutting and patching.
  - 3. Progress cleaning.
  - 4. Protection of installed construction.
- B. Related Requirements:
  - 1. Section 013300 "Submittal Procedures" for submitting surveys.
  - 2. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, replacing defective work, and final cleaning.
  - 3. Section 024119 "Selective Demolition" for demolition and removal of selected portions of the building.

#### 1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

#### 1.4 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
  - 1. Structural Elements: When cutting and patching structural elements, or when encountering the need for cutting and patching of elements whose structural function is not known, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.

2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
    - a. Primary operational systems and equipment.
    - b. Fire separation assemblies.
    - c. Air or smoke barriers.
    - d. Fire-suppression systems.
    - e. Plumbing piping systems.
    - f. Mechanical systems piping and ducts.
    - g. Control systems.
    - h. Communication systems.
    - i. Fire-detection and -alarm systems.
    - j. Electrical wiring systems.
    - k. Operating systems of special construction.
  3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
    - a. Water, moisture, or vapor barriers.
    - b. Membranes and flashings.
    - c. Exterior curtain-wall construction.
    - d. Sprayed fire-resistive material.
    - e. Equipment supports.
    - f. Piping, ductwork, vessels, and equipment.
    - g. Noise- and vibration-control elements and systems.
  4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Comply with requirements specified in other Sections.
  1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.

- C. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
  - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, gas service piping, and water-service piping; underground electrical services; and other utilities.
  - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect in accordance with requirements in Section 013100 "Project Management and Coordination."

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks and existing conditions. If discrepancies are discovered, notify Architect promptly.
- B. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- C. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- D. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

### 3.4 INSTALLATION

- A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb, and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure satisfactory results as judged by Architect. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.
- F. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with

other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions with manufacturer.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  2. Allow for building movement, including thermal expansion and contraction.
  3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Architect. Fit exposed connections together to form hairline joints.
- J. Repair or remove and replace damaged, defective, or nonconforming Work.
1. Comply with Section 017700 "Closeout Procedures" for repairing or removing and replacing defective Work.

### 3.5 CUTTING AND PATCHING

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of Work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements in Section 011000 "Summary."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
  5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by Architect. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will 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 finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch, corner to corner of wall and edge to edge of ceiling. Provide additional coats until patch blends with adjacent surfaces.
  4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
  5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

### 3.6 PROGRESS CLEANING

- A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.



3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    - a. Use containers intended for holding waste materials of type to be stored.
  4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where Work is in progress to the level of cleanliness necessary for proper execution of the Work.
1. Remove liquid spills promptly.
  2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 017419 "Construction Waste Management and Disposal."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.
- 3.7 STARTING AND ADJUSTING
- A. Coordinate startup and adjusting of equipment and operating components with requirements in Section 019113 "General Commissioning Requirements."
  - B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
  - C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.

- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

### 3.8 PROTECTION AND REPAIR OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.
- C. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.
- D. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

## SECTION 017700 - CLOSEOUT PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:
  - 1. Substantial Completion procedures.
  - 2. Final completion procedures.
  - 3. Warranties.
  - 4. Final cleaning.
- B. Related Requirements:
  - 1. Section 012900 "Payment Procedures" for requirements for Applications for Payment for Substantial Completion and Final Completion.

#### 1.3 DEFINITIONS

- A. List of Incomplete Items: Contractor-prepared list of items to be completed or corrected, prepared for the Architect's use prior to Architect's inspection, to determine if the Work is substantially complete.

#### 1.4 ACTION SUBMITTALS

- A. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- B. Certified List of Incomplete Items: Final submittal at Final Completion.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest-control inspection.

1.6 MAINTENANCE MATERIAL SUBMITTALS

1.7 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Procedures Prior to Substantial Completion: Complete the following a minimum of 5 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
  - 1. Advise Owner of pending insurance changeover requirements.
  - 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  - 3. Complete startup and testing of systems and equipment.
  - 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
  - 5. Advise Owner of changeover in utility services.
  - 6. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  - 7. Complete final cleaning requirements.
  - 8. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- C. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 5 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
  - 1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  - 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.8 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:
  - 1. Submit a final Application for Payment in accordance with Section 012900 "Payment Procedures."
  - 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  - 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  - 4. Submit Final Completion photographic documentation.

- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
  - 1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

#### 1.9 LIST OF INCOMPLETE ITEMS

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
  - 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor, listed by room or space number.
  - 2. Organize items applying to each space by major element, including categories for ceilings, individual walls, floors, equipment, and building systems.
  - 3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Page number.
  - 4. Submit list of incomplete items in the following format:
    - a. PDF Electronic File: Architect will return annotated file.
    - b. Three Paper Copies: Architect will return one copies.

#### 1.10 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- C. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
  - 1. Submit on digital media acceptable to Architect.
- D. Warranties in Paper Form:
  - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
  - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or

- installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- E. Provide additional copies of each warranty to include in operation and maintenance manuals.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## PART 3 - EXECUTION

### 3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  1. Complete the following cleaning operations before requesting inspection for certification of Final Completion for entire Project:
    - a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Rake grounds that are not planted, mulched, or paved to a smooth, even-textured surface.
    - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - e. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    - f. Remove debris and surface dust from limited-access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - g. Clean flooring, removing debris, dirt, and staining; clean according to manufacturer's recommendations.
    - h. Vacuum and mop concrete.
    - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
    - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.

- k. Remove labels that are not permanent.

### 3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations required by Section 017300 "Execution" before requesting inspection for determination of Substantial Completion.

END OF SECTION 017700





## SECTION 017839 - PROJECT RECORD DOCUMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for Project Record Documents, including the following:
  - 1. Record Drawings.
  - 2. Record specifications.
  - 3. Record Product Data.
- B. Related Requirements:
  - 1. Section 017300 "Execution" for final property survey.
  - 2. Section 017700 "Closeout Procedures" for general closeout procedures.

#### 1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
  - 1. Number of Copies: Submit one set(s) of marked-up record prints.
  - 2. Number of Copies: Submit copies of Record Drawings as follows:
    - a. Initial Submittal:
      - 1) Submit one paper-copy set(s) of marked-up record prints.
      - 2) Submit PDF electronic files of scanned record prints and one set(s) of file prints.
      - 3) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
    - b. Final Submittal:
      - 1) Submit one paper-copy set(s) of marked-up record prints.
      - 2) Submit PDF electronic files of scanned Record Prints and one set(s) of file prints.
      - 3) Print each drawing, whether or not changes and additional information were recorded.
    - c. Final Submittal:
      - 1) Submit one paper-copy set(s) of marked-up record prints.
      - 2) Submit Record Digital Data Files and one set(s) of Record Digital Data File plots.
      - 3) Plot each drawing file, whether or not changes and additional information were recorded.

- B. Record Specifications: Submit annotated PDF electronic files and one paper copies of Project's Specifications, including addenda and Contract modifications.
- C. Record Product Data: Submit annotated PDF electronic files and directories and one paper copies of each submittal.
  - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

#### 1.4 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
  - 1. Preparation: Mark record prints to show the actual installation, where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
    - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - b. Accurately record information in an acceptable drawing technique.
    - c. Record data as soon as possible after obtaining it.
    - d. Record and check the markup before enclosing concealed installations.
    - e. Cross-reference record prints to corresponding photographic documentation.
  - 2. Content: Types of items requiring marking include, but are not limited to, the following:
    - a. Dimensional changes to Drawings.
    - b. Revisions to details shown on Drawings.
    - c. Depths of foundations.
    - d. Locations and depths of underground utilities.
    - e. Revisions to routing of piping and conduits.
    - f. Revisions to electrical circuitry.
    - g. Actual equipment locations.
    - h. Duct size and routing.
    - i. Locations of concealed internal utilities.
    - j. Changes made by Change Order or Construction Change Directive.
    - k. Changes made following Architect's written orders.
    - l. Details not on the original Contract Drawings.
    - m. Field records for variable and concealed conditions.
    - n. Record information on the Work that is shown only schematically.
  - 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
  - 4. Mark record prints with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
  - 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
  - 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
  - 1. Format: Annotated PDF electronic file.

2. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
  3. Refer instances of uncertainty to Architect for resolution.
  4. Architect will furnish Contractor with one set of digital data files of the Contract Drawings for use in recording information.
    - a. See Section 013100 "Project Management and Coordination" for requirements related to use of Architect's digital data files.
    - b. Architect will provide data file layer information. Record markups in separate layers.
- C. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
  2. Format: Annotated PDF electronic file.
  3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
  4. Identification: As follows:
    - a. Project name.
    - b. Date.
    - c. Designation "PROJECT RECORD DRAWINGS."
    - d. Name of Architect.
    - e. Name of Contractor.

## 1.5 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation, where installation varies from that indicated in Specifications, addenda, and Contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
  3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
  4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
  5. Note related Change Orders, Record Product Data, and Record Drawings where applicable.
- B. Format: Submit record specifications as scanned PDF electronic file(s) of marked-up paper copy of Specifications.

## 1.6 RECORD PRODUCT DATA

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and revisions to Project Record Documents as they occur; do not wait until end of Project.

- B. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
  - 3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.
  
- C. Format: Submit Record Product Data as scanned PDF electronic file(s) of marked-up paper copy of Product Data.
  - 1. Include Record Product Data directory organized by Specification Section number and title, electronically linked to each item of Record Product Data.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017839

## SECTION 024119 - SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Demolition and removal of selected portions of building or structure.

- B. Related Requirements:

- 1. Section 011000 "Summary" for restrictions on use of the premises, Owner-occupancy requirements, and phasing requirements.
  - 2. Section 017300 "Execution" for cutting and patching procedures.

#### 1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.
- B. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and store.
- C. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.
- E. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

#### 1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

## 1.5 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
  - 1. Maintain fire-protection facilities in service during selective demolition operations.

## 1.6 COORDINATION

- A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.

### 3.2 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
4. Cover and protect furniture, furnishings, and equipment that have not been removed.
5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."

B. Remove temporary barricades and protections where hazards no longer exist.

### 3.3 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
5. Maintain fire watch during and for at least 24 hours after flame-cutting operations.
6. Maintain adequate ventilation when using cutting torches.
7. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
10. Dispose of demolished items and materials promptly.

B. Removed and Salvaged Items:

1. Clean salvaged items.
2. Store items in a secure area until delivery to Owner.

### 3.4 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI's "Recommended Work Practices for the Removal of Resilient Floor Coverings."

### 3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.
  - 1. Do not allow demolished materials to accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn demolished materials.

### 3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119



## SECTION 054000 - COLD-FORMED METAL FRAMING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Interior non-load-bearing wall framing.

#### 1.3 PREINSTALLATION MEETINGS

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For the following:
  - 1. Cold-formed steel framing materials.
  - 2. Interior non-load-bearing wall framing.
  - 3. Single deflection track.
  - 4. Post-installed anchors.
  - 5. Power-actuated anchors.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of code-compliance certification for studs and tracks.

#### 1.6 QUALITY ASSURANCE

- A. Code-Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program of the Certified Steel Stud Association or the Steel Stud Manufacturers Association.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. ClarkDietrich.
2. MarinoWARE.
3. Or Approved Equal.

## 2.2 PERFORMANCE REQUIREMENTS

- A. Cold-Formed Steel Framing Standards: Unless more stringent requirements are indicated, framing shall comply with AISI S100, AISI S200, and the following:
1. Wall Studs: AISI S211.
  2. Headers: AISI S212.

## 2.3 COLD-FORMED STEEL FRAMING MATERIALS

- A. Steel Sheet: ASTM A1003/A1003M, Structural Grade, Type H, metallic coated, of grade and coating designation as follows:
1. Grade: ST33H .

## 2.4 INTERIOR NON-LOAD-BEARING WALL FRAMING

- A. Steel Studs: Manufacturer's standard C-shaped steel studs, of web depths indicated, punched, with stiffened flanges, and as follows:
1. Minimum Base-Metal Thickness: 0.0478 inch.
  2. Flange Width: 1-3/8 inches.
- B. Steel Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with unstiffened flanges, and as follows:
1. Minimum Base-Metal Thickness: 0.0538 inch.
  2. Flange Width: 1-1/4 inches.

## 2.5 FRAMING ACCESSORIES

- A. Fabricate steel-framing accessories from ASTM A1003/A1003M, Structural Grade, Type H, metallic coated steel sheet, of same grade and coating designation used for framing members.
- B. Provide accessories of manufacturer's standard thickness and configuration, unless otherwise indicated, as follows:
1. Supplementary framing.
  2. Bracing, bridging, and solid blocking.
  3. Anchor clips.
  4. End clips.
  5. Stud kickers and knee braces.

## 2.6 ANCHORS, CLIPS, AND FASTENERS

- A. Steel Shapes and Clips: ASTM A36/A36M, zinc coated by hot-dip process according to ASTM A123/A123M.
- B. Anchor Bolts: ASTM F1554, Grade 36 Grade 55, threaded carbon-steel hex-headed bolts, headless, hooked bolts, carbon-steel nuts, and flat, hardened-steel washers; zinc coated by hot-dip process according to ASTM A153/A153M, Class C .
- C. Post-Installed Anchors: Fastener systems with bolts of same basic metal as fastened metal, if visible, unless otherwise indicated; with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01 ICC-ES AC58 as appropriate for the substrate.
  - 1. Uses: Securing cold-formed steel framing to structure.
  - 2. Type: Torque-controlled adhesive anchor adhesive anchor.
  - 3. Material for Interior Locations: Carbon-steel components zinc plated to comply with ASTM B633 or ASTM F1941, Class Fe/Zn 5, unless otherwise indicated.
  - 4. Material for Exterior or Interior Locations and Where Stainless Steel Is Indicated: Alloy Group 1 stainless-steel bolts, ASTM F593, and nuts, ASTM F594.
- D. Power-Actuated Anchors: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.
- E. Mechanical Fasteners: ASTM C1513, corrosion-resistant-coated, self-drilling, self-tapping, steel drill screws.
  - 1. Head Type: Low-profile head beneath sheathing; manufacturer's standard elsewhere.

## 2.7 MISCELLANEOUS MATERIALS

- A. Shims: Load-bearing, high-density, multimonomer, nonleaching plastic; or cold-formed steel of same grade and metallic coating as framing members supported by shims.
- B. Sill Sealer Gasket: Closed-cell neoprene foam, 1/4 inch thick, selected from manufacturer's standard widths to match width of bottom track or rim track members as required.

## 2.8 FABRICATION

- A. Fabricate cold-formed steel framing and accessories plumb, square, and true to line, and with connections securely fastened, according to referenced AISI's specifications and standards, manufacturer's written instructions, and requirements in this Section.
  - 1. Fabricate framing assemblies using jigs or templates.
  - 2. Cut framing members by sawing or shearing; do not torch cut.
  - 3. Fasten cold-formed steel framing members by welding, screw fastening, clinch fastening, pneumatic pin fastening, or riveting as standard with fabricator. Wire tying of framing members is not permitted.
    - a. Comply with AWS D1.3/D1.3M requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding work.

- b. Locate mechanical fasteners and install according to Shop Drawings, with screws penetrating joined members by no fewer than three exposed screw threads.
- 4. Fasten other materials to cold-formed steel framing by welding, bolting, pneumatic pin fastening, or screw fastening, according to Shop Drawings.
- B. Reinforce, stiffen, and brace framing assemblies to withstand handling, delivery, and erection stresses. Lift fabricated assemblies by means that prevent damage or permanent distortion.
- C. Tolerances: Fabricate assemblies level, plumb, and true to line to a maximum allowable variation of 1/8 inch in 10 feet and as follows:
  - 1. Spacing: Space individual framing members no more than plus or minus 1/8 inch from plan location. Cumulative error shall not exceed minimum fastening requirements of sheathing or other finishing materials.
  - 2. Squareness: Fabricate each cold-formed steel framing assembly to a maximum out-of-square tolerance of 1/8 inch.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, conditions, and abutting structural framing for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Install load-bearing shims or grout between the underside of load-bearing wall bottom track and the top of foundation wall or slab at locations with a gap larger than 1/4 inch to ensure a uniform bearing surface on supporting concrete or masonry construction.
- B. Install sill sealer gasket at the underside of wall bottom track or rim track and at the top of foundation wall or slab at stud or joist locations.

#### 3.3 INSTALLATION, GENERAL

- A. Cold-formed steel framing may be shop or field fabricated for installation, or it may be field assembled.
- B. Install cold-formed steel framing according to AISI S200, AISI S202, and manufacturer's written instructions unless more stringent requirements are indicated.
- C. Install shop- or field-fabricated, cold-formed framing and securely anchor to supporting structure.
  - 1. Screw, bolt, or weld wall panels at horizontal and vertical junctures to produce flush, even, true-to-line joints with maximum variation in plane and true position between fabricated panels not exceeding 1/16 inch.

- D. Install cold-formed steel framing and accessories plumb, square, and true to line, and with connections securely fastened.
  - 1. Cut framing members by sawing or shearing; do not torch cut.
  - 2. Fasten cold-formed steel framing members by welding, screw fastening, clinch fastening, or riveting. Wire tying of framing members is not permitted.
    - a. Comply with AWS D1.3/D1.3M requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding work.
    - b. Locate mechanical fasteners, install according to Shop Drawings, and comply with requirements for spacing, edge distances, and screw penetration.
- E. Install framing members in one-piece lengths unless splice connections are indicated for track or tension members.
- F. Install temporary bracing and supports to secure framing and support loads equal to those for which structure was designed. Maintain braces and supports in place, undisturbed, until entire integrated supporting structure has been completed and permanent connections to framing are secured.
- G. Do not bridge building expansion joints with cold-formed steel framing. Independently frame both sides of joints.
- H. Install insulation, specified in Section 072100 "Thermal Insulation," in framing-assembly members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work.
- I. Fasten hole-reinforcing plate over web penetrations that exceed size of manufacturer's approved or standard punched openings.

#### 3.4 INSTALLATION OF INTERIOR NONLOADBEARING WALL FRAMING

- A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure.
- B. Fasten both flanges of studs to top and bottom track unless otherwise indicated. Space studs as follows:
  - 1. Stud Spacing: 16 inches.
- C. Set studs plumb, except as needed for diagonal bracing or required for nonplumb walls or warped surfaces and similar requirements.
- D. Isolate non-load-bearing steel framing from building structure to prevent transfer of vertical loads while providing lateral support.
  - 1. Install single deep-leg deflection tracks and anchor to building structure.
  - 2. Install double deep-leg deflection tracks and anchor outer track to building structure.
  - 3. Connect vertical deflection clips to studs and anchor to building structure.
  - 4. Connect drift clips to cold-formed steel metal framing and anchor to building structure.
- E. Install horizontal bridging in wall studs, spaced vertically in rows indicated but not more than 48 inches apart. Fasten at each stud intersection.

1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened to webs of punched studs.
  2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
  3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.
- F. Top Bridging for Single Deflection Track: Install row of horizontal bridging within 18 inches of single deflection track. Install a combination of bridging and stud or stud-track solid blocking of width and thickness matching studs, secured to stud webs or flanges.
1. Install solid blocking at 96-inch centers.
- G. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, and fasteners, to provide a complete and stable wall-framing system.

### 3.5 INSTALLATION TOLERANCES

- A. Install cold-formed steel framing level, plumb, and true to line to a maximum allowable tolerance variation of 1/8 inch in 10 feet and as follows:
1. Space individual framing members no more than plus or minus 1/8 inch from plan location. Cumulative error shall not exceed minimum fastening requirements of sheathing or other finishing materials.

### 3.6 REPAIR

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed cold-formed steel framing with galvanized repair paint according to ASTM A780/A780M and manufacturer's written instructions.

### 3.7 PROTECTION

- A. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that cold-formed steel framing is without damage or deterioration at time of Substantial Completion.

END OF SECTION 054000

## SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Framing with dimension lumber.

### PART 2 - PRODUCTS

#### 2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
  - 1. Factory mark each piece of lumber with grade stamp of grading agency.
  - 2. Dress lumber, S4S, unless otherwise indicated.
- B. Maximum Moisture Content of Lumber: 15 percent unless otherwise indicated.

#### 2.2 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
  - 1. Blocking.
  - 2. Nailers.
- B. Dimension Lumber Items: Construction or No. 2 grade lumber of any species.

#### 2.3 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
- B. Screws for Fastening to Metal Framing: ASTM C1002 ASTM C954, length as recommended by screw manufacturer for material being fastened.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- B. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry accurately to other construction. Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- C. Install plywood backing panels by fastening to studs; coordinate locations with utilities requiring backing panels.
- D. Do not splice structural members between supports unless otherwise indicated.
- E. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
- F. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
  - 1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
  - 2. ICC-ES evaluation report for fastener.

END OF SECTION 061053



## SECTION 079200 - JOINT SEALANTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Silicone joint sealants.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Joint-Sealant Schedule: Include the following information:
  - 1. Joint-sealant application, joint location, and designation.
  - 2. Joint-sealant manufacturer and product name.
  - 3. Joint-sealant formulation.
  - 4. Joint-sealant color.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Sample Warranties: For special warranties.

#### 1.5 FIELD CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
  - 1. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
  - 2. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

## 1.6 WARRANTY

- A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: Two years from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: Ten years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 JOINT SEALANTS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

### 2.2 SILICONE JOINT SEALANTS

- A. Silicone, S, NS, 50, NT: Single-component, nonsag, plus 50 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 50, Use NT.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Pecora Corporation.
    - b. Sika Corporation; Joint Sealants.
    - c. Tremco.

### 2.3 JOINT-SEALANT BACKING

- A. Sealant Backing Material, General: Nonstaining; compatible with joint substrates, sealants, primers, and other joint fillers; and approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) Type O (open-cell material) Type B (bicellular material with a surface skin) or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
  - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

### 3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
  - 1. Do not leave gaps between ends of sealant backings.
  - 2. Do not stretch, twist, puncture, or tear sealant backings.
  - 3. Remove absorbent sealant backings that have become wet before sealant application, and replace them with dry materials.
- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

- E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
  - 1. Place sealants so they directly contact and fully wet joint substrates.
  - 2. Completely fill recesses in each joint configuration.
  - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
  
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
  - 1. Remove excess sealant from surfaces adjacent to joints.
  - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
  - 3. Provide concave joint profile per Figure 8A in ASTM C 1193 unless otherwise indicated.

### 3.4 CLEANING

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

### 3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out, remove, and repair damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

### 3.6 JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces.
  - 1. Joint Locations:
    - a. Vertical joints on exposed surfaces of walls.
    - b. .
  - 2. Joint Sealant: Urethane, S, NS, 25, NT.
  - 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION 079200

## SECTION 092900 - GYPSUM BOARD

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Interior gypsum board.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For the following:

- 1. Impact-resistant gypsum board.
- 2. Joint treatment materials.

#### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

#### 1.5 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, moisture damaged, and mold damaged.
  - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or blotchy surface contamination and discoloration.

## PART 2 - PRODUCTS

### 2.1 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

### 2.2 INTERIOR GYPSUM BOARD

- A. Impact-Resistant Gypsum Board: ASTM C1396/C1396M gypsum board, tested according to ASTM C1629/C1629M.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. CertainTeed Gypsum.
    - b. National Gypsum Company.
    - c. USG Corporation.
  - 2. Core: 5/8 inch, Type X.
  - 3. Long Edges: Tapered.

### 2.3 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C475/C475M.
- B. Joint Tape:
  - 1. Interior Gypsum Board: Paper.
- C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.
  - 1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
  - 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
    - a. Use setting-type compound for installing paper-faced metal trim accessories.
  - 3. Fill Coat: For second coat, use drying-type, all-purpose compound.
  - 4. Finish Coat: For third coat, use drying-type, all-purpose compound.

### 2.4 AUXILIARY MATERIALS

- A. Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.
- B. Steel Drill Screws: ASTM C1002 unless otherwise indicated.
  - 1. Use screws complying with ASTM C954 for fastening panels to steel members from 0.033 to 0.112 inch thick.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION AND FINISHING OF PANELS, GENERAL

- A. Comply with ASTM C840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
  - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
  - 2. Fit gypsum panels around ducts, pipes, and conduits.
  - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch- wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

### 3.3 INSTALLATION OF INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
  - 1. Impact-Resistant Type: As indicated on Drawings.
- B. Single-Layer Application:
  - 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
  - 2. On partitions/walls, apply gypsum panels vertically (parallel to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
    - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
  - 3. On Z-shaped furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
  - 4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.
- C. Curved Surfaces:
  - 1. Install panels horizontally (perpendicular to supports) and unbroken, to extent possible, across curved surface plus 12-inch- long straight sections at ends of curves and tangent to them.

### 3.4 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C840:
  - 1. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.
    - a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."

### 3.5 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.



- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
  - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900



## SECTION 095113 - ACOUSTICAL PANEL CEILINGS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes acoustical ceiling panels and exposed grid suspension systems for interior ceilings, including wire hangers, fasteners, main runners, and cross tees.
- B. Related Requirements:
  - 1. Division 26 "Electrical" for lighting installed within suspended acoustic ceiling panel system.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified, 6 inches in size.
- C. Samples for Initial Selection: For components with factory-applied finishes.
- D. Shop Drawings: Layout and details of acoustical ceilings show locations of items that are to be coordinated with or supported by the ceilings.
- E. Acoustical Certifications: Manufacturer's certifications that products comply with specified requirements, including laboratory reports showing compliance with specified tests and standards. For acoustical performance, each carton of material must carry an approved independent laboratory classification of NRC, CAC, and AC.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are indicated and coordinated with each other, using input from installers of the items involved:
  - 1. Ceiling suspension-system members.
  - 2. Structural members to which suspension systems will be attached.
  - 3. Method of attaching hangers to building structure.
  - 4. Carrying channels or other supplemental support for hanger-wire attachment where conditions do not permit installation of hanger wires at required spacing.
  - 5. Size and location of initial access modules for acoustical panels.
  - 6. Items penetrating finished ceiling and ceiling-mounted items including the following:

- a. Lighting fixtures.
  - B. Evaluation Reports: For each acoustical panel ceiling suspension system, from ICC-ES.
- 1.5 CLOSEOUT SUBMITTALS
- A. Maintenance Data: For finishes to include in maintenance manuals.
- 1.6 QUALITY ASSURANCE
- A. Single-Source Responsibility: Provide acoustical panel units and grid components by a single manufacturer.
    - 1. Fire Performance Characteristics: Identify acoustical ceiling components with appropriate markings of applicable testing and inspecting organization.
    - 2. Surface Burning Characteristics: As follows, tested per ASTM E 84 and complying with ASTM E 1264 Classification.
    - 3. Fire Resistance: As follows tested per ASTM E119 and listed in the appropriate floor or roof design in the Underwriters Laboratories Fire Resistance Directory.
  - B. Coordination of Work: Coordinate acoustical ceiling work with installers of related work including, but not limited to building insulation, gypsum board, light fixtures, mechanical systems, electrical systems, and sprinklers.
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Deliver acoustical panels, suspension-system components, and accessories to Project site and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
  - B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.
  - C. Handle acoustical ceiling units carefully to avoid chipping edges or damaged units in any way.
- 1.8 FIELD CONDITIONS
- 1.9 WARRANTY
- A. Manufacturer's Warranty: Manufacturer agrees to replace suspension system components that fail in materials within specified warranty period.
    - 1. Failures include, but are not limited to, the following:
      - a. Deterioration of metals, metal finishes, and other materials beyond normal use including 50 percent or greater red rust.
    - 2. Warranty Period: 10 years from date of Substantial Completion.

- B. Acoustical Panel: Submit a written warranty executed by the manufacturer, agreeing to repair or replace panels that fail within the warranty period. Failures include, but are not limited to the following: Sagging and Warping.
  - 1. Acoustical panels: One (10) year from date of substantial completion

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Source Limitations: Obtain each type of acoustical ceiling panel and its supporting suspension system from single source from single manufacturer.

### 2.2 SUPENDED ACOUSTICAL PANELS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Armstrong Ceiling & Wall Solutions; SOUNDSCAPES Shapes or comparable product by one of the following:
  - 1. CertainTeed Corporation.
  - 2. USG Corporation.
- B. Suspended Acoustical Panel (SAP):
  - 1. Surface Texture: Fine.
  - 2. Composition: Fiberglass.
  - 3. Color: As selected from Manufacturer's full line of standard colors.
  - 4. Size: Varies; As indicated in Drawings.
  - 5. Edge Profile: Square.
  - 6. Sabin: 1.49.
  - 7. Flame Spread: ASTM E 1264; Class A (UL).
  - 8. Light Reflectance (LR) White Panel: ASTM E 1477; 0.90.
  - 9. Dimensional Stability: Standard.
  - 10. Recycle Content: Post-Consumer - 12% Pre-Consumer - 59%.

### 2.3 METAL SUSPENSION SYSTEM

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Armstrong Ceiling & Wall Solutions; INTERLUDE 9/16" Dimensional Tee PRELUDE 15/16" Exposed Tee Drywall Grid Suspension System or comparable product by one of the following:
  - 1. CertainTeed Corporation.
  - 2. USG Corporation.
- B. Metal Suspension-System Standard: Provide manufacturer's standard, direct-hung, metal suspension system and accessories in accordance with ASTM C635/C635M and designated by type, structural classification, and finish indicated.
- C. Wide-Face, Single-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet electrolytically zinc coated, with prefinished flanges of width indicated.

1. Structural Classification: Heavy-duty system.
2. Face Finish: Painted white.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.
- B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders unless otherwise indicated, and comply with layout indicated on reflected ceiling plans.
- B. Layout openings for penetrations centered on the penetrating items.

### 3.3 INSTALLATION

- A. Install acoustical panel ceilings in accordance with ASTM C636/C636M and manufacturer's written instructions.
- B. Suspend ceiling hangers from building's structural members and as follows:
  1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
  2. Secure wire hangers to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect hangers directly to structure or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
  3. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
  4. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
  5. Space hangers not more than 48 inches o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.

6. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.
- C. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

#### 3.4 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension-system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.
- B. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 095113





## SECTION 096813 - TILE CARPETING AND RESILIENT BASE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Modular carpet tile.

- B. Related Requirements:

- 1. Section 024119 "Selective Demolition" for removing existing floor coverings.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

- 1. Include manufacturer's written data on physical characteristics, durability, and fade resistance.
- 2. Include manufacturer's written installation recommendations for each type of substrate.

- B. Samples: For each of the following products and for each color and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.

- 1. Carpet Tile: Full-size Sample.
- 2. Exposed Edge, Transition, and Other Accessory Stripping: 12-inch- long Samples.

- C. Samples for Initial Selection: For each type of carpet tile.

- 1. Include Samples of exposed edge, transition, and other accessory stripping involving color or finish selection.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.

- B. Sample Warranty: For special warranty.

1.5 CLOSEOUT SUBMITTALS

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is certified by the International Certified Floorcovering Installers Association at the Commercial II certification level.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Comply with the Carpet and Rug Institute's CRI 104.

1.8 FIELD CONDITIONS

- A. Comply with the Carpet and Rug Institute's CRI 104 for temperature, humidity, and ventilation limitations.
- B. Environmental Limitations: Do not deliver or install carpet tiles until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at levels planned for building occupants during the remainder of the construction period.
- C. Do not install carpet tiles over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by carpet tile manufacturer.
- D. Where demountable partitions or other items are indicated for installation on top of carpet tiles, install carpet tiles before installing these items.

1.9 WARRANTY

- A. Special Warranty for Carpet Tiles: Manufacturer agrees to repair or replace components of carpet tile installation that fail in materials or workmanship within specified warranty period.
  - 1. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse.
  - 2. Failures include, but are not limited to, the following:
    - a. More than 10 percent edge raveling, snags, and runs.
    - b. Dimensional instability.
    - c. Excess static discharge.
    - d. Loss of tuft-bind strength.
    - e. Loss of face fiber.
    - f. Delamination.
  - 3. Warranty Period: 10 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 CARPET TILE

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Interface, LLC.
  2. Mohawk Group (The); Mohawk Carpet, LLC.
  3. Shaw Contract Group; a Berkshire Hathaway company.
- B. Color: As selected by Architect from manufacturer's full range.
- C. Pattern: As Indicated on Drawings.
- D. Primary Backing/Backcoating: Manufacturer's standard composite materials.
- E. Size: 24 by 24 inches.
- F. Applied Treatments:
1. Soil-Resistance Treatment: Manufacturer's standard treatment.
- G. Performance Characteristics:
1. Appearance Retention Rating: Heavy traffic, 3.0 minimum according to ASTM D7330.
  2. Dry Breaking Strength: Not less than 100 lbf according to ASTM D2646.
  3. Dimensional Tolerance: Within 1/32 inch of specified size dimensions, as determined by physical measurement.
  4. Dimensional Stability: 0.2 percent or less according to ISO 2551 (Aachen Test).

### 2.2 RESILIENT WALL BASE

- a. Wall Base: ASTM F 1861.
- 1) Roppe Corporation.
  - 2) Johnsonite
  - 3) Armstrong World Industries, Inc.
  - 4) Or approved equal.
- b. Type (Material Requirement): TS (rubber, vulcanized thermoset).
- c. Group (Manufacturing Method): I (solid, homogeneous).
- d. Style: Butt-to (cove with extended square-edge toe that fits flush to floor covering).
- e. Minimum Thickness: 0.125 inch (3.2 mm).
- f. Height: 4 inches (unless otherwise noted on drawings) with corner pieces.
- g. Lengths: 120 foot long rolls.

- h. Outside Corners: Pre-molded.
- i. Inside Corners: Pre-molded.
- j. Surface: Smooth.
- k. Color: To be selected by Architect from manufacturer's full range
- l. Surface Burning: ASTM E84/NFPA 255 – Class B

## 2.3 INSTALLATION ACCESSORIES

- A. Adhesives: Water-resistant, mildew-resistant, nonstaining, pressure-sensitive type to suit products and subfloor conditions indicated, that comply with flammability requirements for installed carpet tile, and are recommended by carpet tile manufacturer for releasable installation.
- B. Metal Edge/Transition Strips: Extruded aluminum with mill finish of profile and width shown, of height required to protect exposed edge of carpet, and of maximum lengths to minimize running joints.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance.
- B. Examine carpet tile for type, color, pattern, and potential defects.
- C. Concrete Slabs: Verify that finishes comply with requirements specified in Section 033000 "Cast-in-Place Concrete" and that surfaces are free of cracks, ridges, depressions, scale, and foreign deposits.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. General: Comply with the Carpet and Rug Institute's CRI 104 and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch wide or wider, and protrusions more than 1/32 inch unless more stringent requirements are required by manufacturer's written instructions.
- C. Concrete Substrates: Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using

solvents. Use mechanical methods recommended in writing by adhesive and carpet tile manufacturers.

- D. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

### 3.3 INSTALLATION

- A. General: Comply with the Carpet and Rug Institute's CRI 104, Section 10, "Carpet Tile," and with carpet tile manufacturer's written installation instructions.
- B. Installation Method: As recommended in writing by carpet tile manufacturer.
- C. Maintain dye-lot integrity. Do not mix dye lots in same area.
- D. Maintain pile-direction patterns.
- E. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
- F. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- G. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on carpet tile as marked on subfloor. Use nonpermanent, nonstaining marking device.
- H. Install pattern parallel to walls and borders.

### 3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing carpet tile:
  - 1. Remove excess adhesive and other surface blemishes using cleaner recommended by carpet tile manufacturer.
  - 2. Remove yarns that protrude from carpet tile surface.
  - 3. Vacuum carpet tile using commercial machine with face-beater element.
- B. Protect installed carpet tile to comply with the Carpet and Rug Institute's CRI 104, Section 13.7.
- C. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer.

END OF SECTION 096813



## SECTION 099123 – INTERIOR PAINTING

### PART 1 - GENERAL

#### 1.01 SECTION INCLUDES: (See Paint Schedule and finish designations)

- A. Painting interior

#### 1.02 DEFINITIONS

- A. "Paint or Painting" as used in this specification, are in a general sense and include: Sealers, primers, stains; oil, alkyd, latex, epoxy, and enamel type paints; lacquers; fillers; and the application of these materials.

#### 1.03 PRODUCT SUBMITTALS

- A. Product Data: Listing of proposed products matched to specified products. Cut sheet for each product indicating generic formulation, sheen, ingredients, percentage by volume, and breakdown of pigment versus vehicle.
- B. Samples: Full range of custom mixed color chips for selection.

#### 1.04 CONTRACT CLOSEOUT SUBMITTALS

- A. Maintenance Materials: Turn over to Owner upon completion; one gallon of each type and color of finish. Include color pigmentation formulation.

#### 1.05 PACKING AND DELIVERY

- A. Delivery: Unopened containers with manufacturer's labels indicating type of paint, stock number, color number and instructions.

#### 1.06 STORAGE AND PROTECTION

- A. Storage: Do not store volatiles, thinners, and solvents (including rags and tool cleaning pails) within the building.

#### 1.07 ENVIRONMENTAL REQUIREMENTS

- A. Temperature:
  - 1. Interior: Constant 65 degrees F. or above. Prevent wide variations in temperature which might result in condensation.
  - 2. Exterior: Do not paint materials when temperature is below 50 degrees F.
- C. Provide proper conditions of ventilation and light; use artificial light in quantity equivalent to normal occupancy lighting.

## PART 2 - PRODUCTS

### 2.01 PAINT AND FINISHES

- A. Manufacturer:
  - 1. PPG Industries
  - 2. Sherwin Williams
  - 3. ICI Glidden
  - 4. Benjamin Moore Paint Co.
- B. Specific products are indicated in painting schedule included at the end of this Section. These products establish a standard of quality. Others may be required to substantiate properties and qualities.
- C. Ready-mixed; well ground, not settle badly, cake or thicken in the container, readily broken up with a paddle to a smooth consistency; and having easy brushing properties; Lead free.
- D. Colors: Standard colors.
  - 1. Four (4) eggshell colors for walls throughout.
  - 2. Two (2) semi-gloss colors for door frames & FTR cover.
  - 3. One (1) white Dry Erase Paint for select walls.
  - 4. One (1) clear Dry Erase Paint for select walls

## PART 3 - EXECUTION

### 3.01 PREPARATION

- A. Inspection and Surfaces:
  - 1. Carefully examine executed work of other trades which might affect this Work.
- B. Protect materials and equipment from damage by painting and finishing.
  - 1. Tape, mask, cover and/or coat adjacent materials, areas, surfaces, and equipment not to receive finishes noted in this Section. Specifically protect wood floors and natural unfinished wood.
  - 2. Before painting, remove hardware, accessories, plates and similar items or provide ample protection of such items.
  - 3. Remove doors, if necessary, to paint bottom edge.
  - 4. Use only skilled mechanics for removing and replacing such items. Upon completion of each space replace above items.
- C. General Preparation of Surfaces:
  - 1. Prepare all surfaces in accordance with manufacturer's recommendations for product being used.



2. Surfaces: Clean; dry; free of moisture and dampness; smooth, even, true to plane; and free of material which will adversely affect adhesion or appearance of applied coating.

### 3.02 PREPARATION- METAL SURFACES TO BE PAINTED

- A. Thoroughly clean metal surfaces where rust or scale is present, by the use of wire brushing and/or abrasive paper.
- B. Wash surfaces with mineral spirits to remove any grease, oil or dirt.
- C. Touch-up all shop primed or coated surfaces chipped or abraded, using shop coat material specified. Feather edges of damaged shop coat to achieve smooth finish. Comply with metal preparation as indicated by the manufacturer of the coating.

### 3.03 PREPARATION- MASONRY SURFACES

- A. Masonry Surfaces: Allow to cure at least thirty (30) days before painting. Before apply the first coat of paint, fill all joints and point up all holes, Correct any imperfections. Remove all mortar or plaster droppings and any other foreign matter. Brush surfaces with a stiff bristle or wire brush.
- B. Neutralize free lime with a solution acceptable to the manufacturers of the paint which is to be applied.

### 3.04 PREPARATION- GYPSUM BOARD SURFACES

- A. Fill all minor irregularities with spackling compound and sand to smooth, level surfaces. Exercise care to avoid raising nap of paper.
- B. Allow to cure at least 15 days before painting.
- C. Do not use sandpaper on paper surfaces to be painted.
- D. Do not apply paint or sealer when moisture content exceeds that required by paint manufacturer.

### 3.05 APPLICATION OF PAINTS

- A. General Requirements: Comply with manufacturer's instructions including environmental conditions, temperatures, pot life, drying and recoating times. Utilize tools and equipment recommended for products.
  1. Do not apply coating until moisture content of surface is within limitations recommended by the paint manufacturer. Test with moisture meter.
  2. Apply paint, enamel, stains and varnishes with suitable brushes, rollers or spray equipment which has been kept clean, free from contamination and suitable for finish required.
  3. Rate of application of coating shall not exceed that as recommended by the paint manufacturer for the purpose of surface involved.

4. Sand and dust between each coat to remove visible defects and blemishes.
- B. Coverage:
1. Apply not less than 2 separate and distinct coats of finish on all exposed Work throughout.
  2. Apply to shop or factory primed surfaces not less than 1 finish coat; in addition to the prime coat.
  3. Apply additional coats should there be a deficiency in coverage.
  4. Apply additional coats over entire surface until paint film is of uniform finish, color appearance and coverage, specifically when previous color, stain, dirt, spackle, patching or undercoats show through final coats.
  5. If problems arise in connection with application of paint, stop painting area immediately and contact paint manufacturer for recommendation.
- C. Methods of Application:
1. Brush Application: Brush each coat out uniformly to eliminate laps, skips and excess brush marks. Brush apply field coats on metals, and trim.
  2. Roller Application: Use proper skill to avoid signs of lapping and excess paint lines from edge of roller. When cutting in with a brush is required, these areas must be of same texture, color and hiding as adjacent areas, to ensure good appearance.
  3. Spray Application: Absolute masking and protective measures shall be taken to avoid damage to other finish materials. Manufacturer's recommendations for dry mil thickness are minimums and square feet per gallon shall not be exceeded. Paints shall not be diluted for purpose of spraying.
- D. Drying:
1. Do not apply any type finish until the preceding coats are thoroughly dry and hard.
  2. Interior Paint: Allow to dry at least 24 hours between coats.
  3. Exterior Paint: Allow to dry at least 48 hours between coats.
- E. Appearance: (As visible from 3 feet)
1. Smooth and even; free from runs, sags, skips, streaks and holidays.
  2. No variation in sheen or color within continuous surfaces.
  3. No clogging of lines and angles of shapes and details.
  4. Edges (adjoining other materials or other colors): Paint sharp and clean without overlapping.
  5. Coats: Proper consistency and well spread so as to show no laps and brush marks.

### 3.06 REPAIR AND CORRECTION

- A. Repair damage (resulting from painting) done to the Work of others and existing Work.
- B. Correct Work damage caused by drafty, dusty conditions or cold, to complete satisfaction, without additional cost.

- C. Refinish entire surface where portion of finish has been damaged or is not acceptable.
- D. No claims will be allowed for correction of defective Work caused by failure to adequately prepare substrates and abide by manufacturers recommendations.

### 3.07 CLEANING

- A. Touch-up and restore where finish is damaged.
- B. Remove spilled splashed or splattered paint from all surfaces.
- C. Do not mar surface finish of item being cleaned.
- D. Leave storage spaces clean and in condition required for equivalent spaces in project. Leave premises clean and free from all rubbish and accumulated material left from this Work.

### 3.08 SCHEDULE - INTERIOR SURFACES (NORMAL EXPOSURE)

#### A. MASONRY - (Existing CMU Walls)

##### 1. Latex Systems:

##### a. Eggshell Finish – Existing CMU:

- 1st Coat: S-W ProMar Interior/Exterior Block Filler B25W25 (75-125 sq.ft./gal.)
- 2nd Coat: S-W ProMar 200 Eggshell zero VOC, B31W02651
- 3rd Coat: S-W ProMar 200 Eggshell zero VOC, B31W02651

#### B. METAL - Existing Hollow Metal Frames and Existing Fin Tub Radiator Cover.

##### 1. Alkyd Systems:

##### a. Semi-Gloss Finish:

- 1st Coat: S-W Steel Seam B58W910 (Where Pitted)
- 2nd Coat: S-W Pro Industrial Pro Cryl Primer B66W01310
- 3rd Coat: Pro Industrial Waterbased Alkyd Urethane B531150
- 4th Coat: Pro Industrial Waterbased Alkyd Urethane B531150

#### C. DRYWALL (Walls, Gypsum Board, Etc.)

##### 1. Latex Systems:

##### a. Egg-Shell Finish:

- 1st Coat: S-W ProMar 200 Zero VOC Interior Latex Wall Primer, B28-2600 (4 mils wet, 1.2 mils dry)
- 2nd Coat: S-W ProMar 200 Zero VOC Interior Latex Eg-Shel, B20W200 Series

3rd Coat: S-W ProMar 200 Zero VOC Interior Latex Eg-Shel, B2O-2600 Series (4 mils wet, 1.6 mils dry per coat)

2. DRY ERASE SYSTEM:

- a. Egg-Shell Finish (Clear over color):
  - 1st Coat: S-W ProMar 200 Zero VOC Interior Latex Wall Primer, B28-2600 (4 mils wet, 1.2 mils dry)
  - 2nd Coat: S-W ProMar 200 Zero VOC Interior Latex Eg-Shel, B2OW200 Series
  - 3rd Coat: S-W ProMar 200 Zero VOC Interior Latex Eg-Shel, B2O-2600 Series (4 mils wet, 1.6 mils dry per coat)
  - 4<sup>th</sup> Coat: Notable Dry Erase Paint – Clear (500-00) by Benjamin Moore
  - 5<sup>th</sup> Coat: Notable Dry Erase Paint – Clear (500-00) by Benjamin Moore
  
- b. Egg-Shell Finish (white):
  - 1st Coat: S-W ProMar 200 Zero VOC Interior Latex Wall Primer, B28-2600 (4 mils wet, 1.2 mils dry)
  - 3<sup>rd</sup> Coat: Notable Dry Erase Paint – White (500-01) by Benjamin Moore
  - 4<sup>th</sup> Coat: Notable Dry Erase Paint – White (500-01) by Benjamin Moore

END OF SECTION 099123

## SECTION 101400 - SIGNAGE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Panel signs.

#### 1.3 DEFINITIONS

- A. ADA-ABA Accessibility Guidelines: U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines."

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication and installation details for signs.
  - 1. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
  - 2. Provide message list, typestyles, graphic elements, including tactile characters and Braille, and layout for each sign.
  - 3. Wiring Diagrams: Power, signal, and control wiring.
- C. Samples for Initial Selection: Manufacturer's color charts consisting of actual units or sections of units showing the full range of colors available for the following:
  - 1. Acrylic sheet.
  - 2. Die-cut vinyl characters and graphic symbols. Include representative samples of available typestyles and graphic symbols.
- D. Sign Schedule: Use same designations indicated on Drawings.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Warranty: Special warranty specified in this Section.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For signs to include in maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.
- B. Source Limitations for Signs: Obtain each sign type indicated from one source from a single manufacturer.
- C. Regulatory Requirements: Comply with applicable provisions in ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

1.8 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather Field Measurements: Verify recess openings by field measurements before fabrication and indicate measurements on Shop Drawings.

1.9 COORDINATION

- A. Coordinate placement of anchorage devices with templates for installing signs.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Deterioration of embedded graphic image colors.
  - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Acrylic Sheet: ASTM D 4802, Category A-1 (cell-cast sheet), Type UVA (UV absorbing).

## 2.2 PANEL SIGNS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. ACE Sign Systems, Inc.
  2. Gemini Incorporated.
  3. Signature Signs, Incorporated.
  4. Or approved equal.
- B. Interior Panel Signs: Provide smooth sign panel surfaces constructed to remain flat under installed conditions within a tolerance of plus or minus **1/16 inch (1.5 mm)** measured diagonally from corner to corner, complying with the following requirements:
1. Acrylic Sheet: **1/8" inch** thick.
  2. Phenolic-Backed Photopolymer Sheet: Provide light-sensitive, water-wash photopolymer face layer bonded to a phenolic base layer to produce a composite sheet with overall, face layer, and base-layer thicknesses, respectively, of **0.120, 0.040, and 0.080 inch (3.0, 1.0, and 2.03 mm)**.
  3. Laminated, Etched Photopolymer: Raised graphics with Braille **1/32 inch (0.8 mm)** above surface with contrasting colors as selected by Architect from manufacturer's full range and laminated to acrylic back.
  4. Edge Condition: Square cut.
  5. Corner Condition: Rounded to  $\frac{3}{4}$ " radius.
  6. Mounting: Unframed, wall mounted with two-face tape.
  7. Color: As selected by Architect from manufacturer's full range.
  8. Tactile Characters: Characters and Grade 2 Braille raised **1/32 inch (0.8 mm)** above surface with contrasting colors.
- C. Tactile and Braille Sign: Manufacturer's standard process for producing text and symbols complying with ADA-ABA Accessibility Guidelines and with ICC/ANSI A117.1. Text shall be accompanied by Grade 2 Braille. Produce precisely formed characters with square-cut edges free from burrs and cut marks; Braille dots with domed or rounded shape.
1. Panel Material: Photopolymer.
  2. Raised-Copy Thickness: Not less than **1/32 inch (0.8 mm)**.
- D. Subsurface Engraved Acrylic Sheet: Reverse-engage back face of clear acrylic sheet. Fill resulting copy with enamel. Apply opaque background color coating over enamel-filled copy.
- E. Colored Coatings for Acrylic Sheet: For copy and background colors, provide colored coatings, including inks, dyes, and paints, that are recommended by acrylic manufacturers for optimum adherence to acrylic surface and are UV and water resistant for five years for application intended.
1. Color: As selected by Architect from manufacturer's full range.
- F. Provide blank back panel to match size and type of sign for signs mounted on glass.

## 2.3 FABRICATION

- A. General: Provide manufacturer's standard signs of configurations indicated.
1. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.

## 2.4 FINISHES, GENERAL

- A. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## 2.5 ACRYLIC SHEET FINISHES

- A. Colored Coatings for Acrylic Sheet: For copy and background colors, provide colored coatings, including inks, dyes, and paints, that are recommended by acrylic manufacturers for optimum adherence to acrylic surface and that are UV and water resistant for five years for application intended.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Verify that items, including anchor inserts, are sized and located to accommodate signs.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Locate signs and accessories where indicated, using mounting methods of types described and complying with manufacturer's written instructions.
  - 1. Install signs level, plumb, and at heights indicated, with sign surfaces free of distortion and other defects in appearance.
  - 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where applicable. Where not indicated or possible, such as double doors, install signs on nearest adjacent walls. Locate to allow approach within **3 inches (75 mm)** of sign without encountering protruding objects or standing within swing of door.
- B. Wall-Mounted Signs: Comply with sign manufacturer's written instructions except where more stringent requirements apply.
  - 1. Two-Face Tape: Mount signs to smooth, nonporous surfaces. Do not use this method for vinyl-covered or rough surfaces.
  - 2. Silicone-Adhesive Mounting: Attach signs to irregular, porous, or vinyl-covered surfaces.



### 3.3 CLEANING AND PROTECTION

- A. After installation, clean soiled sign surfaces according to manufacturer's written instructions. Protect signs from damage until acceptance by Owner.

### 3.4 SIGN SCHEDULE

- A. Sign Type 01: Typical at Rooms with Non-permanent Interchangeable Name Tags (Guidance Office): 6" x 6" acrylic plaque with interchangeable name insert slot. Provide characters indicating the room number or name and insert slot for name of occupant. Mount on wall, push and/or pull side of door as indicated. Room numbers and names as designated by the Owner. Refer to drawing for sign types and sign locations.
- B. Sign Type 02: Typical at Rooms with Permanent Names (Media Center): 6" x 6" acrylic plaque with characters by length required for name to identify the room. Room numbers and names as identified on floor plans. Refer to drawing for sign types and sign locations.

END OF SECTION 101400



## SECTION 123000 - MANUFACTURED CASEWORK

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. Related Documents:
  - 1. Drawings, specifications, and general provisions of the Contract.
- 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: "Miscellaneous Rough Carpentry" for blocking within walls to adequately support casework.
  - 2. Division 07 Section: "Joint Sealants" for caulking of casework and/or countertops to abutting walls.
  - 3. Division 09 Section: "Resilient Base and Accessories" for resilient base applied to manufactured casework.

#### 1.2 REFERENCES

- A. ANSI-A135: for all hardboard.
- B. ANSI-A161.2-1998: for performance of fabricated high-pressure decorative laminate countertops.
- C. ANSI-A208.1-2009: 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.
- F. SEFA 8PL Recommended Practices: for cabinet construction.

#### 1.3 DEFINITIONS

- A. Exposed:
  - 1. In casework, surfaces visible when drawers and opaque doors (if any) are closed; behind clear glass doors; bottoms of cabinets 42" or more above finished floor; and tops of cabinets less than 78" above finished floor.

B. Semi-Exposed:

1. In casework, surfaces that become visible when opaque doors are open or drawers are extended; bottoms of cabinets more than 30" or tops of cabinets less than 42" above finished floor.

1.4 SUBMITTALS

A. Shop Drawings:

1. Comply with submittals procedures.
2. Include catalog numbers and product data.
3. Submit 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
4. Approved shop drawings to be returned to manufacturer at least 60 days before production.
5. Project Architect must approve all items prior to fabrication and delivery of casework.
6. Casework installer 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.
4. Submit catalog showing construction details, material specifications and hardware specifications of all items used.

C. Warranty:

1. Provide sample warranty document stating specified terms as referenced herein.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Must be certified for chain of custody by a third party certification group approved by FSC.
- B. Unless otherwise indicated, comply with AWI, for grades of interior architectural woodwork, construction, finishes and other requirements.
- C. Manufacturer to provide SEFA 8 laboratory furniture certificate of performance on construction method. Standard: Particleboard must be specified.

#### 1.6 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.

#### 1.7 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°F.
  - 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 a letter releasing manufacturer from any liability and responsibility from any warranty or damage resulting from not complying with required ambient conditions.

#### 1.8 WARRANTY

- A. Provide a Five-Year warranty to the original 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 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

2.1 MANUFACTURERS

A. Manufacturers:

1. Basis-of-Design Product: TMI Systems Corp.
2. Case Systems.
3. Campbell Rhea Décor Series
4. Or approved equal

2.2 MATERIALS

A. Provide Plastic Laminate Faced Cabinets Manufactured with:

1. Particleboard Core:

- a. All particleboard shall be Grade M-3 and shall meet or exceed all requirements as set by ANSI A208.1-2009.

|                       |                 |
|-----------------------|-----------------|
| Density               | 40-50 lbs/cu.ft |
| Moisture Content      | 10% Max         |
| Modulus of Rupture    | 2393 psi        |
| Modulus of Elasticity | 398,900 psi     |
| Internal Bond         | 80 psi          |
| Hardness              | 500 pounds Min  |
| Linear Expansion      | 0.35%           |
| Thickness Tolerance   | +/- 0.008"      |
| Face Screw Holding    | 247 pounds Min  |

2. MR (Moisture Resistant)/FSC Core shall be:

- a. Interior-Grade moisture resistant particleboard.
- b. Meet or exceed M-3 Grade, according ANSI-A208.1-2009.

3. Low Emitting Core shall be:

- a. NAUF/FSC (No added Urea Formaldehyde) M-2 Particleboard:
  - i. For casework core having recycled content.

- ii. For casework core being manufactured without the use of urea formaldehyde.
    - iii. For products having chain-of-custody certificates certifying that the wood used in the casework complies with FSC requirements.
  - b. NAUF/FSC (No added Urea Formaldehyde) Plywood:
    - i. Plywood that meets or exceeds the standards set forth by the APA for structural use panels.
    - ii. For casework core being manufactured without the use of urea formaldehyde.
    - iii. For products having chain-of-custody certificates certifying that the wood used in the casework complies with FSC requirements.
  - c. FSC M-3 Particleboard:
    - i. For products having chain-of-custody certificates certifying that the wood used in the casework complies with FSC requirements.
  - d. FSC Plywood:
    - i. For products having chain-of-custody certificates certifying that the wood used in the casework complies with FSC requirements.
- B. Joinery:
  - 1. Mechanical Joinery:
    - a. All cabinet body components shall be secured utilizing concealed interlocking mechanical fasteners as approved by the AWI Quality Standards 8th Edition -2003 Sections 400A-T-12, 400B-T10 and 1600-T-11.
- 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. Vertical surface decorative grade VGS: .028" thick
    - b. General purpose decorative grade HGS: .048" thick
    - c. Cabinet decorative liner grade CLS: .020" thick
    - d. Non-decorative backer grade BKH: .028" thick
    - e. Thermally fused melamine 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. NAUF, no VOC
  - 2. EVA
    - a. Adhesive shall be mechanically applied.
- F. Protective coating option:
  - 1. All surfaces, including: pulls, hinges, countertops and edge banding be coated with OEM-treated, quat-silane antimicrobial AEM 5772 from AEGIS Environments.

## 2.3 FABRICATION

- A. General Cabinet Body Construction:
  - 1. Cabinet Box Style shall be Standard: Reveal Overlay
  - 2. Cabinet Box Core shall be Standard: Particleboard
  - 3. Bottoms and ends of cabinets, and tops of tall cabinets and tops and bottoms of wall cabinets (all structural components) shall be 1-inch thick.
  - 4. All panels shall be manufactured with balanced construction.
  - 5. Fixed interior components such as fixed shelves, dividers, and cubicle compartments shall be full 1" thick and attached with concealed interlocking mechanical fasteners.
  - 6. Cabinet body exterior surfaces shall be: Standard: VGS
  - 7. Cabinet finished interior options shall be: Finished At Opens
  - 8. Cabinet body interior surfaces shall be: Standard: Thermally Fused
  - 9. Cabinet body front edge shall be: Standard: .020" PVC Mounting stretchers are 3/4" thick structural components fastened to end panels and back by mechanical fasteners, and are concealed by the cabinet back.
  - 10. When the rear of a cabinet is exposed, a separate finished 3/4" thick decorative laminate back panel may be specified.



11. Backs of cabinets are 1/2" thick surfaced both sides for balanced construction and fully captured on both sides and bottom.
  12. 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.
  13. An upper 3/4" thick stretcher shall be located behind the back panel and attached between the end panels with mechanical fasteners. This stretcher is also fastened to the full sub-top thus capturing the back panel.
  14. Protective coating All surfaces, including: pulls, hinges, countertops and edge banding be coated with OEM-treated, quat-silane antimicrobial AEM 5772 from AEGIS Environments.
- B. Base Cabinet Construction:
1. All base cabinets, except sink cabinets, shall have a solid 3/4" thick sub-top of core (as specified above), fastened between the ends with interlocking mechanical fasteners.
  2. Sink cabinets with a split removable back panel shall have a formed metal front brace, and steel corner gussets shall be utilized to support and securely fasten top in all four corners. Front brace shall be powder coated black.
- 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 and be 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 1-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.
  2. All wall cabinet exterior bottoms shall be: Match Exterior Surface
  3. All wall cabinet tops shall be: 1-inch.
- E. Tall and Wall Cabinet Top Edges shall be: Standard: Raw
- F. Tall, Wall and Hutch Tops shall be: HPL to Match Exterior Surface
- G. Tall, Wall and Hutch Upper Door Reveal shall be: Standard: 15mm Reveal
- H. Toe Base of Cabinet:

1. Individual bases shall be constructed of: Pressure Treated 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 Standard: 96mm
  3. Toe Base Options Standard: Attached
- I. Drawer Fronts and Solid Doors:
1. All drawer fronts and solid door components shall be: Standard: Particleboard surfaced both sides for balanced construction.
  2. Options shall be: HPL Door Interior and Exterior (both sides match front surface color)
  3. Surfaces shall be: Standard: HPL Grade VGS
  4. Door and drawer front edge shall be: Standard: 3mm PVC
- J. Drawer Boxes:
1. Drawer box constructed with a full 1/2" thick core shall be: Standard: Particleboard non-racking, non-deflecting platform bottom that is carried directly by "L" shaped, bottom mount drawer glides.
  2. Drawer box at finished interiors shall be: Standard: Surface to Match Standard Interior
  3. Standard: Slides are secured with 1-1/4" long screws driven through the platform and into the sides. Drawer box sides, backs, sub-front, and bottom shall be 1/2". 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. Drawer box fronts shall be removable and attached to drawer box sub-front with screws from inside of drawer. Horizontal parting rails between drawers shall be 3/4" thick core, with balanced surfaces, secured to and further reinforcing cabinet ends.
- K. Doors:
1. Solid Doors shall be: 1" thick core
- L. Shelves:
1. Adjustable:
    - a. Adjustable shelves shall be: Standard: Particleboard core, with balanced surfaces.

- b. Adjustable shelves in closed cabinets shall be: 1" for All Shelves
  - c. All adjustable shelves in open cabinets shall be: 1" thick,
  - d. Adjustable shelf edge on open cabinets shall be: Standard: .020" Match Edge at Front
  - e. Adjustable shelf edge on closed cabinets shall be: Standard: .020" Match
  - f. Adjustable shelf shall be set back Standard: 15mm from the front
2. Fixed:
- a. Fixed shelves shall be: Standard: Particleboard
  - b. Fixed shelves shall be: 1" for All Shelves
  - c. Fixed shelf surfaces on closed cabinets shall be: Standard: Match Interior Selections
  - d. Fixed shelf surfaces on open cabinets shall be: Standard: Match Interior Selections
3. Countertops:

## 2.4 FINISHES

- A. Plastic Laminate Casework Colors by Wilsonart or Formica, or Approved Equal:
- 1. As selected by Architect from manufacture's standard range of laminate colors and finishes.
    - a. Standard: "60" or "38" matte finish
  - 2. Thermally Fused Melamine Laminate that meets performance requirements of ANSI/NEMA 3 LD – 2005 for GP-28.
    - a. As selected by Architect from manufacturer's' standard range of colors.

## 2.5 ACCESSORIES

- A. Hardware:
- 1. Hinges:
    - a. 5-Knuckle Hinges / Reveal Overlay: Standard: 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.
    - i. Standard: Plastic bow pull, 10mm diameter with 96mm O.C. mounting holes or Standard: Anodized aluminum wire pull, 8mm diameter with 96mm O.C. mounting holes or Epoxy coated wire pull, 8mm diameter with 96mm O.C. mounting holes
3. Drawer Slides:
- a. Standard drawer: Self-closing, bottom mount epoxy coated with captive roller and positive in stop. Slide shall have 100 lb. load rating, must be: self-closing and must prevent drawer fronts from contacting the cabinet body. Drawer slides must meet or exceed Grade 1 requirements per ANSI A156.9/BHMA with full extension slides on file and paper storage
  - b. File drawer: Full extension, bottom mount epoxy coated with captive roller and positive in stop. Slide shall have 100lb. load rating, must be: full extension, and prevent drawer fronts from contacting the cabinet body. Drawer slides must meet or exceed Grade 1 requirements per ANSI/BHMA.
4. Wall Shelving Hardware:
- a. Heavy-duty wall shelving hardware, including standards and brackets, are available in an anochrome finish.
  - b. Bracket Mounted Shelf Core shall be: Standard: Particleboard
  - c. Bracket Mounted Shelf Edge shall be: 3mm
  - d. Bracket Mounted Shelf Surface shall be: VGS laminate
5. Shelf Clips:
- i. 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 as approved in AWI 400B-T-9 for premium Grade. Shelf clips shall be: single pin plastic shelf clip with anti-tip locking tabs, used for all 1/4" hardboard shelves.
6. Closet Rods shall be Zinc plated rod, 1" diameter with captive sockets.
7. 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, (not used with self-closing hinges) shall have: heavy-duty, spring-loaded roller, with molded plastic bumper mounted at door top to keep door securely shut.
- e. Magnetic Catch, (not used with self-closing hinges) shall have: white plastic housing with two 32mm spaced, elongated holes for screw-attachment to allow adjustability.
- f. Catches shall be: Standard: Magnetic at Base and Wall, 1 Roller at Tall

2.6 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](http://www.sefalabs.com).  
 The ANSI/NEMA 3 LD – 2005 test procedures are available on-line at [www.global.ihs.com](http://www.global.ihs.com)

| <u>Test</u>               | <u>Paragraph</u> |
|---------------------------|------------------|
| 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:

| <u>Test</u>     | <u>Paragraph</u> |
|-----------------|------------------|
| 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:

| <u>Test</u>                  | <u>Paragraph</u> |
|------------------------------|------------------|
| 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:

| <u>Test</u>                           | <u>Paragraph</u> |
|---------------------------------------|------------------|
| Chemical Spot Test                    | 8.1              |
| Boiling Water Resistance Test         | 8.2              |
| (ANSI/NEMA LD 3 -2005 Paragraph 3.5)  |                  |
| Ball Impact Resistance Test           | 8.3              |
| (ANSI/NEMA LD 3 -2005 Paragraph 3.8)  |                  |
| Dart Impact resistance Test           | 8.4              |
| (ANSI/NEMA LD 3 – 2005 Paragraph 3.9) |                  |

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

3.1 INSTALLERS

- A. Installation shall be: by casework manufacturer's authorized representative.

3.2 INSTALLATION

- A. Casework shall be: installed plumb and true and is to be securely anchored in place.  
 B. The casework contractor shall verify all critical building dimensions prior to fabrication of casework.  
 C. Provide all labor for unloading, distribution, and installation of casework and related items as specified.

- D. All casework shall be: securely anchored to horizontal wall blocking, not to plaster lathe or wall board.
- E. 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.
- F. The casework installer shall remove all debris, sawdust, scraps, and leave casework spaces clean.
- G. 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 123000





## SECTION 260500 - BASIC ELECTRICAL MATERIALS AND METHODS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Grounding and bonding.
  - 2. Supports.
  - 3. Identification.
  
- B. Related Sections:
  - 1. Excavation and backfill: Division 2.
  - 2. Firestopping: Division 7.

#### 1.2 REFERENCES

- A. NFPA 70-93 -- National Electrical Code; National Fire Protection Association; 2008.
  
- B. Standard of Installation; National Electrical Contractors Association (NECA).

#### 1.3 QUALITY ASSURANCE

- A. Conform to NFPA 70.
  
- B. Conform to requirements of NECA "Standard of Installation" that do not conflict with regulatory requirements or requirements of contract documents.
  
- C. Furnish products listed by Underwriters Laboratories Inc. and classified as suitable for installed use and environmental conditions.

### PART 2 - PRODUCTS

#### 2.1 NAMEPLATES

- A. Description: Engraved plastic.
  
- B. Nameplate Color: Black letters on white background.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine elements and surfaces intended to support products.
  
- B. Verify that each product conforms to regulatory requirements and to specification requirements.

#### 3.2 PREPARATION

- A. Clean surfaces to receive work.

- B. Protect surrounding elements from work of this section.

### 3.3 GROUNDING AND BONDING

- A. Make grounding electrode connections to meet regulatory requirements.
- B. Provide and use the following grounding electrode systems:
  1. Metal underground water pipe.
  2. Metal building frame.
  3. Concrete-encased electrode in building foundation.
- C. Make grounding and bonding connections to separately derived systems to meet regulatory requirements.

### 3.4 ANCHORS AND SUPPORTS

- A. Select fasteners and anchors that are suitable for surfaces to which they attach.
- B. Select fasteners and anchors with suitable load rating to support installed products.
- C. Do not use nails for permanent supports.
- D. Fasten supports to sheet metal framing channels using sheet metal screws.
- E. Fasten supports to metal surfaces and elements using machine screws and bolts or beam clamps.
- F. Do not use spring steel clips and clamps to fasten supports.
- G. Do not cut or drill structural elements.

### 3.5 IDENTIFICATION

- A. Secure nameplates to equipment and enclosures using noncorrosive screws or rivets, or appropriate adhesive.

### 3.6 FIELD QUALITY CONTROL

- A. Correction of Defective Work:
  1. Replace defective products.

### 3.7 CLEANING

- A. Restore damaged corrosion-resistant coatings.

END OF SECTION 260500

## SECTION 260501 – ELECTRICAL – GENERAL

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16.1.1 Scope of Work: The scope of work under this section covers the electrical requirements of the heating system upgrading.

1. Contractor shall provide electric service to the new equipment as shown on the drawings.
2. Contractor shall modify existing electric panels to allow connection of new equipment. Provide new electrical panels where indicated on the drawings.
3. Contractor shall remove obsolete and abandoned circuits, conduit, and fittings.
4. Contractor shall connect all new equipment with motor starters and disconnect switches as shown or required.
5. Connect power and control wiring to new damper motors.
6. Provide submittals, shop drawings, manufacturers cuts as required.
7. All work to be performed in accordance with latest NEC and Local Electric Code and local authorities having jurisdiction.
8. Provide electrical power to all new pumps and equipment in the Boiler Room.
9. Provide and install new light fixtures at locations indicated on the drawings. Provide new switches and wiring to new circuit breaker in existing electrical panel.
10. Contractor shall connect all terminal equipment (unit heater, RTU units, AHU units, etc.) and make all power and final control connections necessary for a complete and operating system.

11. Provide new circuits required for temperature control system.
12. Provide all required power supplies for all mechanical equipment, including starters, disconnects, and other required electrical devices, except where specified as furnished or factory installed by the manufacturer.
13. Provide power supply to all temperature control modules, coordinate location with the Mechanical Contractor.
14. All cutting and patching for the Electrical Contractor shall be performed by the Electrical Contractor.
15. Furnish and install new duct smoke detectors as shown on the drawings. Perform NFPA reacceptance test of the existing fire alarm system upon completion of system upgrades. Provide owner with copy of certification per NFPA standards.
16. Electrical contractor shall coordinate the mechanical equipment demolitions with the mechanical contractor.

16.1.2 General:

1. The entire installation shall be performed in a workmanlike manner, left completely connected, and ready to give proper and continuous service.
2. All materials and work in connection with the foregoing items shall be as specified herein or as called for on the contract drawings.
3. In furnishing a proposal, the Contractor confirms agreement to all items and conditions referred to herein and/or indicated on accompanying drawings; no consideration shall be granted for alleged misunderstanding.

16.1.3 Plans and Drawings:

1. The Engineer's drawings, which constitute an integral part of this contract, shall serve as contract drawings. They indicate the general layout of the renovated electrical system and show arrangements of feeders, panelboards, switchboards, disconnects, conduits, service equipment, and other work.
2. Field verification or correction of scale dimensions on plans is directed, since actual locations, distances, and levels are to be governed by local field conditions.
3. Discrepancies shown on different plans, or between plans and actual field conditions shall be brought to the attention of the Engineer promptly for resolution.

16.1.4 Standards: All work, equipment, and materials furnished shall conform with the existing rules, requirements, and specifications of the Insurance Rating Organization having jurisdiction, the National Electric Code (NEC), the National Electric Manufacturer's Association (NEMA), the Institute of Electrical and Electronic Engineers (IEEE), the Insulated Power Cable Engineers Association (IPCEA), the American Society of Testing Materials (ASTM), the American National Standards Institute (ANSI), the requirements of the Occupational Safety Hazards Act (OSHA), and all other applicable Federal, State, and local laws and/or ordinances.

All material and equipment shall bear the inspection labels of Underwriters' Laboratories, if the material and equipment is of the class inspected by said laboratories.

Any paragraph of requirements in these specifications, or drawings, deviating from the rules, requirements, and specifications of the above organizations shall be invalid and their requirements shall hold precedent thereto. The rules, requirements, and specifications as set forth above and any additional work or material necessary for adherence will not be allowed as an extra, but shall be included in the bid price. Ignorance of any rule, requirement, or specification shall not be allowed as an excuse for non-conformity. Acceptance by the Engineer does not relieve the Contractor from any expense involved for the correction of any errors which may exist in the drawings submitted or in the satisfactory operation of any equipment.

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16.1.5 Applicable Publications: The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the references thereto.

Federal Specifications:

|                                   |  |
|-----------------------------------|--|
| J-C-30A& Am-1                     | Cable and Wire, Electrical (Power, Fixed Installation)   |
| W-B-811b&Am-2                     | Busway System, Power, Electrical, 600 Volts  |
| W-F-406B&Int. Am-1<br>(GSA-FSS)   | Fittings for Cable, Power, Electrical and Conduit, Metal, Flexible                                   |
| L-T-0075<br>(ARMY-MO)             | Tape, Pipe-Coating; Pressure-Sensitive and Laminated   |
| L-T-001512<br>(GSA-FSS)           | Tape, Pressure Sensitive Adhesive, Pipe Wrapping   |
| W-C-375a & Int. Am-4<br>(GSA-FSS) | Circuit Breaker, Molded Case; Branch Circuit & Service   |
| W-C-538b                          | Conduit Boxes and Outlet Fittings, Floor, (for Rigid Metal Conduit)                                  |
| W-C-596D/GEN                      | Connector, Plug, Receptacle and Cable Outlet, Electrical Power                                       |
| W-C-1094                          | Conduit and Fittings; Non-Metallic, Rigid (Plastic)  |
| W-F-406b & Int. Am-1              | Fittings for Cable, Power, Electrical and Conduit, Metal Flexible                                    |
| W-F-408C & Am-1                   | Fittings for Conduit, Metal, Rigid (Thick Wall and Thin Wall (EMT) Type)                             |
| W-J-800c                          | Junction Box, Extension, Junction and Am-3 Box; Cover, Junction Box (Steel, Cadmium, or Zinc Coated) |

|                                   |  |
|-----------------------------------|--|
| W-P-115a & Am-2                   | Panel, Power Distribution  |
| W-P-455a & Am-4                   | Plate, Wall Electrical   |
| W-S-610c                          | Splice Conductor.  |
| W-S-893c & Int. Am-1<br>(GSA-FSS) | Switch, Toggle, and Mounting Strap, (Interchangeable)  |
| W-S-986E                          | Switches, Toggle (Toggle & Lock) Flush Mounted (General Specification)   |
| HH-1-510D                         | Insulation Tape, Electrical Friction   |
| HH-1-553B                         | Insulation Tape, Electrical, (Rubber, Natural & Synthetic)   |
| HH-1-595B                         | Insulation Tape, Electrical, and Am-1 Pressure Sensitive Adhesive, Plastic, General Purpose                            |
| WW-C-00540c                       | Conduit, Metal, Rigid: and (GSA-FSS) Coupling, Elbow, and Nipple, and Int. Am-1 Electrical Conduit: Aluminum (GSA-FSS) |
| WW-C-568A                         | Conduit, Metal, Rigid: Electrical Thin Wall Type (Electrical Metallic Tubing); Straight Lengths, Elbows and Bends.     |
| WW-C-566b                         | Conduit, Metal Flexible  |
| WW-C-581d & Am-3                  | Conduit, Metal, Rigid: and Coupling, Elbow and Nipple, Electrical Conduit: Zinc Coated                                 |

16.1.6 National Fire Protection Association (NEMA) Publication:

Latest Edition

16.1.7 National Fire Protection Association (NFPA) Publication:

No. 70 National Electrical Code - Latest Edition

16.1.8 Underwriters' Laboratories, Inc. (UL) Standards:

All equipment to be UL approved.

16.1.9 Materials and Equipment: Materials and equipment shall conform to the respective publications and other requirements specified below. Other materials and equipment shall be as specified elsewhere herein and shall be the products of manufacturers regularly engaged in the manufacturing of such products.

Cable, Flexible: Federal Specification J-C-30.

Metallic Armored Cable: Type ACHH or ACT.

Non-Metallic Sheathed Cable: Type NM or NMC, with ground conductor.

Circuit Breakers:

Low Voltage Power Circuit Breakers: NEMA Standard SG 3.

Molded Case Circuit Breakers: Federal Specification W-C-375.

Conductors, Insulated: Federal Specification J-C-30, types as specified.

Conduit:

Zinc-coated Rigid Steel Conduit: Federal Specification WW-C-581.

Rigid Aluminum: Federal Specification WW-C-540

Connectors, Wire Pressure: Federal Specification W-S-610.

Device Plates: Federal Specification W-P-455.

Fittings, Cable and Conduit: Federal Specifications W-F-406 & W-F-408

Outlets:

Conduit, Cast Metal or Malleable Metal: Federal Specification W-C-586

Outlet Boxes:

Sheet-Steel Outlet Boxes: Federal Specification W-J-800

Panelboards: Dead-front construction, Federal Specification W-P-115

Lighting & Appliance Branch Circuit: Feeder and Distribution Panelboards, Class 1, Type as Specified Hereinafter

Load-Center Panelboards: Type 1, Class 2

Receptacles: Federal Specification W-C-596

Service Equipment: (Federal Specification W-S-865, Type NDD or NDS as indicated), (Federal Specification W-C-375), and Underwriters' Laboratories, Inc., Standard UL 869

Switches:

Enclosed Safety Switches: Federal Specifications W-S-865, Type NDS or NDD as indicated.

Toggle Switches, Multiple Type: Federal Specification W-S-893

Toggle Switches, Multiple Type: Federal Specification W-S-896

Tape:

Friction Tape: Federal Specification HH-1-510.

Plastic Tape: Federal Specification HH-1-595.

Rubber Tape: Federal Specification HH-1-553.

16.1.10 Approval of Materials and Equipment: Approval of materials and equipment shall be based on the manufacturer's published data. The label or listing of the Underwriters' Laboratories, Inc. will be accepted as evidence that the materials or equipment conform to the applicable standards of that agency. In lieu of this listing, the Contractor shall submit a statement from a nationally recognized, adequately equipped testing agency indicating that the items have been tested in accordance with required procedures and that the materials and equipment comply with all contract requirements. A manufacturer's statement indicating complete compliance with the applicable Federal Specification, Military Specification, or standard of the American Society for Testing and Materials (ASTM), National Electrical Manufacturers, or other commercial standard is acceptable.

16.1.11 Shop Drawings: The Contractor shall submit complete manufacturer's data of all equipment, appurtenances and accessories, including the following:

- 3Ø, 60 Hz distribution and control equipment;
- lighting and receptacle panels;
- branch circuit feeders;
- luminaires;
- disconnect switches and starters;
- circuit breakers;
- all other electrical work items.

The Contractor shall submit all manufacturer's data at least one (1) month prior to the installation of the equipment. Equipment installation shall not be permitted until manufacturer's data has been reviewed by the Engineer.

16.1.12 Working Drawings: The contract drawings are not intended to serve as working or installation drawings. These drawings are for engineering and general arrangement purposes only. The Contractor shall prepare his own working drawings based on the contract drawings.

With submittals the Contractor shall notify the Engineer of all departures from the contract drawings and specifications; otherwise, acceptance of such submittals will not constitute acceptance of the subject matter thereof only and not of any other structure, material or apparatus shown or indicated.

Materials or equipment shall not be ordered nor shall any work be performed by the Contractor before the materials, equipment, and the working drawings as herein required have been reviewed by the Engineer and the Contractor advised to furnish as submitted or furnish as otherwise noted.

Upon completion of the work and as a condition precedent to obtaining final acceptance of the work, the Contractor shall furnish to the Engineer four (4) complete sets of instructions, technical bulletins, and any other printed matter, such as diagrams, prints, or drawings, containing full information required for the proper operation, maintenance, and repair of the equipment installed and for ordering spare parts.



All conduit 2" or greater in diameter shall be shown in scaled layout, both plan and elevations, to ascertain head clearances and to assure the avoidance of openings and other project components; i.e., doors, access openings, equipment, piping, instrumentation devices, vaults, etc.

16.1.13 Workmanship: All materials and equipment shall be installed in accordance with recommendations of the manufacturer as approved by the Engineer to conform with contract documents. The installation shall be accomplished by workmen skilled in this type of work.

16.1.14 Grounding: Except where specifically indicated otherwise, all exposed non-current carrying metallic parts of electrical equipment and neutral conductor of the wiring system shall be grounded.

16.1.15 Installation of Conduits and Fittings: Each piece of conduit installed shall be free from defects.

The equivalent number of 90 degree bends in a single conduit run are limited to the following:

|                              |   |
|------------------------------|---|
| Runs in excess of 300 feet   | 0 |
| Runs of 300 feet to 201 feet | 1 |
| Runs of 200 feet to 101 feet | 2 |
| Runs of 100 feet and less    | 3 |

Factory bent elbows or field bent elbows with approved tools may be used. Heating of conduit to facilitate bending is prohibited.

All exposed conduit shall be installed, either parallel or perpendicular to structural members, unless impractical, and shall be grouped wherever possible. Conduit shall be attached to structural components with approved supports spaced a maximum of six (6') apart and shall form a neat rigid installation. Conduit supported from building walls shall be installed with at least 1/4" clearance from the walls to prevent the accumulation of dirt and moisture behind the conduit.

Where conduit goes through a wall or floor, all openings will be core drilled in sufficient diameter to allow for the installation of a fireproof seal. All wall and floor penetration shall be fitted with a fireproof seal.

16.1.16 Conduit: Under this section the Contractor shall furnish and install all conduit and conduit fittings to complete the installation of all electrically operated equipment as specified herein and as shown on the contract drawings.

All exposed conduits in the Boiler Room shall be EMT. All exposed conduits in finished areas shall be in Wiremold.

Conduits passing through sleeves in interior walls and floors shall be tightly caulked.

16.1.17 Conductors: Under this section, the Contractor shall furnish and install all wires and cables for power, and lighting as required to complete the electrical installations.

Each coil or reel of insulated wire and cable furnished shall bear a tag, containing the Underwriters' Laboratories approval stamp (providing cable is of the class inspected by the said laboratory), name of manufacturer, trade designation, month and year of manufacture, and in no case shall be more than six months old. Wire and cable shall not have been stored in the weather outdoors.

All conductors shall be copper and stranded.

The following information for each size of wire and cable shall be submitted to the Engineer for acceptance:

- Name of cable manufacturer;
- Minimum insulation resistance in megohms;  
Per 1000 ft. at 15.5 deg C;
- Number and size of strands in each conductor;
- Conductor insulation in mils;
- Sheath thickness in mils;
- Average OD of bare conductor;
- Average overall diameter of finished cable;
- Weight per 1000' of finished cable.

Cable shall be shop tested in accordance with the latest standards and applicable test procedures of the specifications of the IPCEA and certified data shall be submitted in compliance with this requirement. Sample lengths of cable shall be submitted to the Engineer, if requested.

1. 600 V Single Conductor Cable:

- a. This cable shall be composed of stranded copper conductors insulated with a heat and moisture resistant cross linked synthetic polymer. Cables shall be rated not less than 600 V, and shall be for circuits operating in dry locations at a maximum conductor temperature of 90°C dry and temperature of 75°C wet. Cables shall be Underwriters' Laboratories listed as Type XHHW with flame resistant jacket, FR-1.
- b. The conductors shall be stranded annealed copper, the individual strands of which shall, before stranding, be in accordance with ASTM Designated B8 and B189.
- c. The conductors shall be insulated with properly flame-retardant, cross-linked synthetic polymer insulating compound.
- d. A suitable barrier tape shall be applied next to the conductor under the primary insulation, where needed to provide free stripping.
- e. The minimum average thickness of the insulation shall conform to the requirements of Table D. The insulation shall be circular in cross section and so centered that the minimum wall thickness shall be not less than the minimum average thickness shown in Table D.

TABLE D

| <u>Cable Type</u>                    | <u>Size of Conductor<br/>AWG &amp; MCM</u> | <u>Insulation<br/>Thickness in Mils</u> |
|--------------------------------------|--|---|
| Single Conductor                     | 14 to 10                                   | 30                                      |
| Heat and Moisture<br>Resistant 600 V | 8 to 2                                     | 45                                      |

|                     |            |    |
|---------------------|------------|----|
| For Conduit & Ducts | 1 to 4/0   | 55 |
|                     | 250 to 500 | 65 |

2. Color Coding: Conductor insulation shall be color coded as follows:

208 Y/120 V System

- Phase A - Black  
Phase B - Red  
Phase C - Blue  
Neutral - White

Single conductor AC control wire shall be RED.

16.1.18 Labels:

1. Panelboard Directories: Use existing card provided by equipment manufacturer. Type identification of function and location for each new circuit using final room names and/or numbers as selected by Owner. Permanently fasten in place and protect behind glass or heavy gauge non-yellowing plastic cover. Permanently label equipment to match. As-built drawings shall include all circuit labeling, cabinet labeling and any other markings required. All labeling shall be neat and accurate.
2. Operational Identification and Warnings: Wherever reasonably required to ensure safe and efficient operation and maintenance of the electrical systems, and electrically connected mechanical systems and general systems and equipment, including prevention of misuse of electrical facilities by unauthorized personnel, install screw attached plastic signs or similar equipment identification, instruction or warning on switches, outlets and other controls, devices, and covers or electrical enclosures. Where detailed instructions or explanations are needed, provide plasticized tags with clearly written messages adequate for the intended purposes.

16.1.19 Outlet Boxes: The Contractor shall furnish and install all outlet boxes for power and lighting conforming with the requirements of this section.

1. Products: All boxes shall be galvanized steel, octagonal or square standing boxes of sizes adequate for the number of conductors installed.

16.1.20 Pull and Junction Boxes:

1. Description:

- a. The Contractor shall furnish and install all junction and pullboxes as shown on the contract drawings and as required to properly install the electrical systems.
- b. Boxes specified in this section are of the type which must be utilized where standard octagonal and square sheet steel or cast boxes as specified in outlet box section cannot be used.

2. Indoor Locations:

- a. Pull and junction boxes for indoor exposed use shall be galvanized sheet steel. Provide security screws on all boxes installed in public areas.

3. Installation:

- a. All junction boxes and pull boxes shall be solidly attached to structural members prior to installation of conduit and set true and plumb. Wooden plastic plugs are not permitted for securing boxes to concrete.
- b. Where control wires must be interconnected in a junction box, terminal boards, consisting of an adequate number of screw type terminals shall be installed. Terminal board current carrying parts must be of ample capacity to carry the full load current of the circuits connected thereto. Approximately 20% of the total amount of terminals provided shall consist of spare terminals. Terminals shall be lettered and/or numbered to conform with the wiring diagrams.

16.1.21 Device Plates: Device plates shall be of the one piece type and shall be provided for all outlets and fittings to suit the devices installed. Plates on unfinished walls and on fittings shall be of zinc-coated sheet steel or cast metal having rounded or beveled edges. Plates on finished walls shall be stainless steel finish. Screws shall be of metal with countersunk heads in a color to match the finish of the plate. Plates shall be installed with all four edges in continuous contact with finished wall surfaces without the use of mats or similar devices. Plaster fillings will not be permitted. Plates installed in wet locations shall be gasketed.

16.1.22 Receptacles and Switches:

1. Receptacles: Single receptacles NEMA 5-15 shall be specification grade rated at 15 amps as indicated, 125 volts, two pole, three wire, grounded type with polarized parallel slots, in accordance with Federal Specification W-C-596. Bodies shall be of brown phenolic compound supported by mounting strap having plaster ears. Contact arrangement shall be such that contact is made on two sides of an inserted blade. Receptacle shall be side or back wired with two screws per terminal, or shall have pressure type screwless terminals with suitable conductor release arrangement. The third grounding pole shall be connected to the metal mounting yoke.
2. GFI-Type Receptacles:
  - a. Furnish and install receptacles with ground fault circuit interrupters as indicated on the drawings and specifications.
  - b. Receptacles shall be NEMA 5-20R configuration with 120 VAC, 15 ampere circuit rating and brown in color.
  - c. All receptacles shall be of such depth as to permit mounting in outlet boxes 1 1/2" or greater in depth without the use of spacers. Units shall have line and load terminal screws such that connection to load terminals will provide ground fault protection for other receptacles or loads connected to these terminals.
  - d. All receptacles shall accept standard duplex wall plates.

- e. All receptacles shall be noise suppressed to reduce nuisance tripping and shall be Underwriters' Laboratories listed.
- 3. Switches: Contractor shall use one-way, three-way, or four-way switches as required to match existing. Switches shall be rated 20A, 120-277 VAC.

16.1.23 Molded Case Circuit Breakers: Individual panelboard mounted circuit breakers shall be Molded Case Circuit Breakers.

- 1. General: Circuit breakers shall be UL listed and meet NEMA Standard No. AB1-1975, and Federal Specification No. W-C-375B/GEN where applicable. Breakers covered under this specification will be applied in panelboards.
- 2. Construction: Molded case circuit shall have over center, trip-free toggle-type operating mechanisms with quick-make, quick-break action and positive handle indication. Three pole breakers shall be common trip. Each circuit breaker shall have a permanent trip unit containing individual thermal and magnetic trip elements in each pole. The circuit breaker shall be constructed to accommodate the supply connections at either end. Circuit breaker operating handles shall assume a center position when tripped. All breakers shall be calibrated for operation in an ambient temperature of 40°C. A button shall be provided on the cover for mechanically tripping the circuit breaker.

Circuit breakers shall be suitable for mounting and operating in any position.

- 3. Terminations: Breakers shall have removable lugs. Lugs shall be UL listed for copper only conductors. Breakers shall be UL listed for installation of crimp lugs.

16.1.24 Panelboards:

- 1. Work Included: The Contractor shall furnish and install panelboards of voltage and current ratings as shown on the contract drawings. Panelboards shall be furnished with circuit breaker ratings, number of breakers, number of poles, and locations conforming with the panelboards on the contract drawings.
- 2. Enclosures:
  - a. The Contractor shall provide panelboards with concealed or semi-concealed hinges and with flush or semi-flush spring catch type flush cylinder locks. Cabinet doors of similar use shall be keyed alike. The Contractor shall set cabinet doors flush into cabinet trim. The Contractor shall equip trim with adjustable clamps or other approved means to fasten trim to cabinets. Fastening method shall permit adjustment for aligning the trim of flush cabinets to a plumb position. Trim for flush cabinets shall extend not less than 3/4" beyond the perimeter of the back box. Trim for surface cabinets shall extend not less than 3/4" beyond the perimeter of the back box. Trim for surface cabinets shall be even with the perimeter of the back box.
- 3. Appurtenances:
  - a. The Contractor shall provide panelboards with terminal strips. All panelboards shall be equipped with nameplates with 3/16" high black letters engraved in

laminated white micarta. Nameplate shall include voltage ratings of panelboards, number of circuits, and panelboard designation.

- b. The Contractor shall provide manufacturer's nameplate and Underwriters' Laboratories, Inc. Inspection label on interior of cabinet. For branch circuit panel, each circuit protective device shall be identified by permanent number referenced to circuit directory on interior of cabinet door.

4. Buswork:

- a. Main bus bars shall be copper and of ample size so that a current density of not more than 400 amperes per square inch of cross section will be attained. This current density shall be based on the application of the full load connected to the panel plus approximately twenty-five percent (25%) of the full load for spare capacity. The main bus shall be full capacity as based on the preceding for the entire length of the panel so as to provide full flexibility of circuit arrangement.
- b. Solid neutral bus bars, where required, shall be of copper.
- c. Branch buswork shall be of copper and of rating to match the maximum branch circuit breaker which may be installed in the standard space.

5. Circuit Breakers:

- a. All circuit breaker contact shall be of non-welding non-corrodable silver alloy, housed in arc chambers, equipped with arc quencher plates. Contacts shall be quick make and quick break whether activated automatically or manually.
- b. Circuit breakers shall have inverse time tripping characteristics with automatic release secured through action of a combination thermal-magnetic trip element which shall be trip free of the handle and shall operate in response to an overload or short circuit. The thermal trip element shall hold on harmless momentary overload, but shall trip on sustained overload. On dangerous overload or short circuit, within the interrupting rating of the breaker, the magnetic trip shall instantly trip the circuit breaker without damage or injury to the circuit breaker.
- c. All circuit breakers shall be of the bolted type.
- d. The entire circuit breaker shall be enclosed in a molded bakelit case and shall be sealed to prevent tampering and unauthorized changes in calibration.
- e. Circuit breaker handles shall have three distinct positions "Off" - "On" - and "Tripped". When a circuit breaker opens on overload or short circuit, the operating handle shall automatically assume the "Tripped" position.
- f. Interrupting ratings shall be 10,000 ampere at 120 volts for frames up to 100 ampere and 42,000 ampere at 240 volts for frames up to 800 ampere.

6. Panelboard Mounting:

- a. Panelboards shall be set true and plumb in location as shown on the contract drawings. Top of panelboard enclosures shall not exceed six (6) feet above finished floor. Panelboards shall be flush mounted.

- b. Enclosures shall not be fastened to concrete or masonry surfaces with wooded or plastic plugs. Appropriate cadmium plated or galvanized steel bolts shall be used with expansion shields or other metallic type concrete insert for mounting on concrete or solid masonry walls. Bolt diameter shall be as required considering the size and weight of the completed panelboard and enclosure to provide adequate structural support.
- c. The contractor shall not use factory furnished knockouts with surface back boxes. The contractor shall punch or drill required openings and Myers type hubs shall be utilized. The contractor shall provide cabinet doors exceeding 40" in height with vertical bolt three point locking mechanisms.
- d. The contractor shall align the tops of cabinets in sight of each other at a uniform height. The contractor shall install cabinets (and other enclosure products) in plumb with the building construction. Flush enclosures shall be installed so that the trim will rest against the surrounding surface material and around the entire perimeter of the enclosure.
- e. Directories shall be neatly marked, indicating function or circuit as installation progresses. After all work is installed and prior to acceptance by the owner, all directories shall be neatly typed and installed indicating circuit functions. Designations and circuit locations shall conform with the panelboard schedules on the contract drawings, except as otherwise authorized by the engineer.
- f. The contractor shall provide directories identifying panelboards and indicating size of feeder (cable and conduit) serving panel, circuit numbers, and description of associated branch circuits including branch circuit trip and connected load at each circuit.

16.1.25 Supporting Devices:

1. Steel Supports:

- a. The contractor shall furnish and install structural steel supports for mounting and installing all electrical, lighting, and equipment furnished under this contract.
- b. Where the weight of equipment exceeds 50 pounds and is supported from walls, ceilings, columns and/or beams, such supporting steel sizes, methods and locations shall be submitted to the engineer for review.

2. Support Fastening and Locations:

- a. All equipment fastenings to columns, steel beams, and trusses shall be by beam clamps or welded. No holes shall be drilled in the steel. Where supports or hangers are required for heavy electrical equipment, and where required, additional sections shall be provided for a safe installation.
- b. All holes in hung ceilings for support rods, conduits and other equipment shall be made adjacent to bars where possible, to facilitate removal of ceiling panels.

16.1.26 Motor Controls:

1. General:
  - a. UL listing is required for all factory fabricated assemblies. Individual components listing is also required.
  - b. Compliance with UL-508, NEMA-IC-1, and applicable portions of J.I.C. Standards for Industrial Control is required.
  - c. All equipment furnished shall be of one approved manufacturer, where possible. Acceptable manufacturers are Allen-Bradley, Square D or equal.
2. Construction:
  1. All parts subject to wear, arcing damage, or electrical failure shall be easily removable.
  2. Overload Protection: Provide melting alloy type for all motors including those with internal protection, of proper size to match the controller. Provide one sensing device per ungrounded motor lead. Exception: windings used only during motor starting and automatically disconnected with the motor is running may be unprotected. Units shall be of "standard", "slow", or "fast" response as required for the type motor and load per the suppliers, recommendations. Size heaters per manufacturer's table supplied with the starter for the actual motor full load current and enclosure indicated on the motor nameplates.
  3. Provide auxiliary contacts of type (NO or NC) and rating as required by interlocking and/or automatic control system indicated in Section 15 and/or drawings.
3. Manual Starters:
  - a. Fractional HP Type: Single phase, toggle operated unless scheduled key operated, full voltage, non-reversing, unless scheduled reversing or 2-speed, with thermal overload device and neon pilot light. Provide H-0-A or Fast-OFF-Slow or FWD-OFF-REV selector switch where scheduled or required by application. Allen-Bradley Bulletin #600, or equal.
  - b. Integral HP type: polyphase, pushbutton operated with handle guard and lockoff, full voltage non-reversing unless scheduled reversing or 2-speed, with thermal overload device, neon pilot light(s) and auxiliary contacts (where scheduled or required). Allen-Bradley Bulletin #609, or equal.
4. Magnetic Starters:
  1. General: Factory fabricated assembly of components listed within a single enclosure. Control circuit transformer with 120V AC secondary winding and fuse and auxiliary devices as shown on elementary diagrams, scheduled and/or as required for function indicated in Electrical Equipment and Control Schedule. Size per NEMA and UL Standards to match motor controlled.
  2. Non-Reversing Full Voltage Starting (FVNR): Allen-Bradley Bulletin #706 or equal.



3. Multi-Speed Full Voltage Starting (FVMS): Furnish with overload relay, auxiliary relay, and pilot light for each speed. Allen -Bradley Bulletin #716 or equal.
4. Overload Relay: Polyphase type of proper size to match contactor.
5. Combination Magnetic Starter: Factory assembled of UL listed components within a single enclosure. Handle mechanism permanently connected to switch and installed on body of enclosure with interlock to prevent unauthorized opening on closing of door with switch on, provision for padlocking in off position, clear indication of switch position, and auxiliary switch where indicated on drawings.

Branch circuit protection: Manually operated quick-make, quick-break over-center, trip free, motor circuit protector with current limiter providing trip indication and single phase protection where required by available fault current. Adjustable trip range at least 3 to 1 with provision for limiting maximum setting per N.E. Code linear calibrated scale, and single adjuster for all poles.

16.1.27 Restoration of Surfaces:

1. Work Included: This Section covers the restoration of existing surfaces and related items which are damaged or disturbed as a result of the Contractor's operations.
2. Contractor's Responsibility:
  - a. General:
    1. Except as otherwise specified or shown, grades, and surfaces shall be restored so as to be equal to or better than the original condition which existed at the time they were damaged or disturbed. The Contractor's obligation will not be considered as fulfilled until all restoration work has been approved by the Engineer and by public authorities having jurisdiction.
  - b. Conflicting Requirement: If any part of this specification is in conflict with the requirements of a public authority or public utility having jurisdiction over the work described, then the public authority's requirement shall govern.

However, where this specification exceeds the public authority requirement, and is acceptable to the public authority or public utility, then this specification shall govern.

16.1.28 Permits, Fees, and Certification: The cost of procuring all permits, inspection services, fees for temporary and permanent electric services shall be included in the price bid under this specification.

Upon completion of the work, the Contractor shall obtain certificates of inspection and approval from the National Board of Fire Underwriters' or similar inspection organization having jurisdiction and shall deliver same to the Engineer and the Owner.

All material and equipment shall bear the inspection labels of Underwriters' Laboratories, if the material and equipment is of the class inspected by said laboratories.

Any paragraph of requirement in these specifications or drawings, deviating from the rules, requirements and specifications of the above organizations shall be invalid and their requirements shall hold precedent thereto. The Contractor shall be held responsible for adherence to all rules, requirements and specifications as set forth above. Any additional work or material necessary for adherence will not be allowed as an extra, but shall be included in the bid price. Ignorance of any rule, requirement, or specification shall not be allowed as an excuse for non-conformity. Acceptance by the Engineer does not relieve the Contractor from the expense involved for the correction of any errors which may exist in the drawings submitted or in the satisfactory operation of any equipment.

16.1.29 Inspection: The Contractor shall furnish all instruments and a qualified Engineer to properly perform all tests required. Written notice of all tests shall be given the Engineer at least two weeks in advance.

Unless waived in writing by the Engineer, all tests shall be made in the presence of a duly authorized representative of the Engineer. When the presence of such representative is so waived, sworn statements, in duplicate, of the tests made and the results thereof, shall be furnished to the Engineer by the Contractor.

All electrical circuits shall be tested to insure circuit continuity, insulation resistance, proper sizing, and freedom improper grounds.

Necessary adjustments and testing shall be made in cooperation with the respective manufacturers and other contractors when necessary. All tests shall be made in accordance with the latest standards of the ANSI, IPCEA, IEEE and NEMA.

1. Costs: Cost of all test shall be borne by this Contractor and shall be included in the contract price.
2. 600V and Below Equipment: Each panel shall be tested with mains disconnected from the feeder, branches connected, branch circuit breakers closed, all fixtures in place and permanently connected, lamps removed or omitted from the sockets, and all wall switches closed. Feeders shall be tested with the feeders disconnected from the panels. Each individual power circuit shall be tested at the panel with the power equipment connected for proper operation.

Megohmmeter tests of the insulation resistance of power feeders shall be conducted. The results will be accepted when the megohmmeter shows the insulation resistance to be not less than one megohm per 100 volts at 20°C using a 1000 volt megohmmeter

The grounding system shall have a resistance to ground of two ohms or less when measured by a megohmmeter or equivalent device.

16.1.30 Operational Tests: The equipment shall be given an operational test to determine that all components including motors, controls, protective and switching devices and auxiliary associated equipment are in operable condition and can function as described and shown on relevant specifications, operating instructions, and drawings.

After completion of work, the Contractor shall thoroughly test the entire electrical system, including electrical work required for instrumentation, control and power, and shall adjust electrical system as required.

The Contractor shall include in his work the providing of necessary factory trained supervision to check over equipment for proper functioning before putting the equipment into operation. This shall include establishing a simulated fault on checking out the coordination of the protective devices.

16.1.31 Documentation Procedures: Signed commitments are required. The transfer of electrical systems to Owner for operation will not proceed until guarantees, warranties, performance certifications, maintenance agreements and similar commitments to be signed by Contractor and other entities have been executed and transmitted to Engineer for placement in the owner's records.

The work of this paragraph is in addition to and does not supersede testing and adjusting specified in other sections of the specifications. The Contractor shall submit to the Engineer, test records, and reports for all testing. Megohmmeter testing (Insulation Resistance Test) of all incoming and outgoing cables, distribution and power panels, motor control centers, etc., shall be done after the cables are in place, and just prior to final termination.

The Contractor shall furnish all test equipment as required.

16.1.32 Closeout Procedures: General coordination is required. Close-out procedures shall be sequenced properly so that work will not be endangered or damaged, and so that every required performance will be fully tested and demonstrated.

System performance test runs are required. Test runs of electrical systems shall be coordinated with test runs of equipment served thereby.

A check of each item in each system shall be made to determine that it is set for proper operation. With Owner's Representative and Engineer present, the Contractor shall operate each system in a test run of appropriate duration to demonstrate compliance with performance requirements. During or following test runs, the Contractor shall make final corrections or where possible, including noise and vibration reductions, elimination of hazards, better response of controls, signals and alarms, and similar system performance improvements. The Contractor shall provide testing or inspection devices requested for Engineer to permit observation of actual system performances and shall demonstrate that controls and items requiring service or maintenance area accessible.

Cleaning and lubrication is required. After final performance test run of each electrical system, the Contractor shall clean system both externally and internally, shall comply with manufacturer's instructions for lubrication of both power and hand operated equipment, and shall remove excess lubrication, touch up minor damage to factory-painted finishes and other painting specified as electrical work, and shall refinish work where damage is extensive.

General operating instructions are required. In addition, to specific training of Owner's operating personnel, specified in the individual sections, and in addition to preparation of written operating instructions and compiled maintenance manuals specified elsewhere in these specifications, the Contractor shall provide general operating instructions for each operational system and equipment item of electrical work, and coordinate instructions with instruction for mechanical work, and other equipment where associated with electrical systems or equipment.

The Contractor shall describe each basic electrical system, and shall explain identification system, displayed diagrams, signals, alarms and audio visual provisions.

The Contractor shall describe interfaces with mechanical equipment, including interlocks, sequencing, startup, shutdown, emergency, safety, system failures, security and similar provisions.

The Contractor shall outline basic maintenance procedures and major equipment turnaround requirements, including adjustments to optimize output and efficiency of electrical systems.

The Contractor shall display and conduct a "thumb-through" explanation of maintenance manuals, record drawings, spare parts inventory, storage of extra materials, meter readings and similar service items.

1. Continued Systems Operations: The Contractor shall coordinate Owner's take over of electrical systems with takeover of mechanical systems, including the provision of skilled electrical operating and maintenance personnel until the time Owner's personnel take over operation of entire mechanical and electrical plant. The Contractor shall respond promptly with continued consultation and services (beyond takeover date) on electrical systems, matching required continued services on associated mechanical systems and equipment until the end of the warranty period.
2. Cleaning: As the work progresses and also before the completion and final acceptance of the work, the Contractor shall remove all rubbish and unused materials resulting from the work and shall leave the structures and grounds in a neat condition satisfactory to the Engineer. Prior to final acceptance, the Contractor shall also remove all temporary structures which he may have erected for his own use.

The Contractor will be responsible for safeguarding and protecting their own work, materials, tools, and equipment.

16.1.33 Guarantee: The following equipment is to be furnished under this section of the specifications and shall be guaranteed against defective materials, design, and workmanship for a period of one (1) year from the date of acceptance, either for beneficial use or final acceptance, whichever is earlier:

1. Disconnect Switches;
2. Control Wiring;
3. Receptacles & Switches;
4. Circuit Breakers;
5. Motor Starters.

16.1.34 Safety and Disconnect Switches:

1. Enclosed Switches - Heavy Duty: Provide enclosed switches with ratings and enclosure types as indicated on the drawings.

Applicable Standards are:

UL File #E4776 listing for use as enclosed switch and as service entrance switch.  
UL 898 - Enclosed and dead front switches.  
NEMA Standard KS-1-1990 for type HD switches.  
Meet Federal Specification W-S-865C for switches type "HD".

Furnish "Heavy Duty" enclosed switches suitable for use with systems delivering 200,000 RMS symmetrical amperes of Fault Current. Furnish Class J or R fuses, except 00 Amperes and above furnish Class L fuses.

Switch shall have voidable dual cover interlock, padlockable cover latch and multiple padlock provision on handle.

Enclosed switches shall be Siemens Heavy Duty or approved equal by specifying engineer. Typical Catalog Number shall be: AN321, NRH321, F321SS, F321H, F321HCH, F321SSCH, F351, FR351, NF351, F351SS, NF351SS, NF351H, SN421, NRH421, F421, F651H, F651SS, NF651H and NF651SS.

2. Enclosed Switches - Mill Duty: Mill duty is an assigned reference to a UL listed heavy duty switch designed to exceed the normal UL requirements of heavy duty switches.

Applicable Standards are:

UL File #E4776 listing for use as enclosed switch and as service entrance switch.

UL 898 - Enclosed and dead front switches.

NEMA Standard KS-1-1990 for type HD switches.

Meet Federal Specification W-S-865C for switches type "HD".

Switch shall have welded seams, insulated shield on load and line side of switch, color code fuse ejector, over-center spring drive, positive handle indication, one piece metallic handle with hook-stick operator, double-pole double-throw auxiliary contacts, blown fuse indication lights, removable door, door seal, voidable door interlock, lockable door and multiple padlock provisions on handle.

Typical Catalog Numbers shall be: F221M, F221MW, F221MSS, F321M, F321MW, F321MSS, F351M, F351MW, F351MSS, NF351M, NF351MW, NF351MSS, F451M, F451MW, F451MSS and NF451MSS. Mill Duty enclosed switches shall be Siemens Mill Duty Switch or equal as approved by specifying engineer.

END OF SECTION 260501



## SECTION 260510 - WIRING METHODS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:

#### 1.2 REFERENCES

- A. NFPA 70-93 -- National Electrical Code; National Fire Protection Association; 2008.
- B. Standard of Installation; National Electrical Contractors Association (NECA).

#### 1.3 SUBMITTALS

- A. Project Record Documents:
  - 1. Coordination drawings.

#### 1.4 QUALITY ASSURANCE

- A. Conform to NFPA 70.
- B. Conform to requirements of NECA "Standard of Installation" that do not conflict with regulatory requirements or requirements of contract documents.
- C. Furnish products listed by Underwriters Laboratories Inc. and classified as suitable for installed use and environmental conditions.

#### 1.5 PROJECT CONDITIONS

- A. Review drawings to determine project conditions.
- B. Determine working clearance around and between construction elements such as beams, columns, walls, and ceilings.
- C. Determine access requirements around other work, including working clearances to mechanical equipment, controls, and electrical equipment.

#### 1.6 COORDINATION

- A. Prepare coordination drawings and distribute to affected installers of related work.
  - 1. Indicate requirements for access openings in building finishes.

### PART 2 - PRODUCTS

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine elements and surfaces intended to support products.
- B. Verify that each product conforms to regulatory requirements and to specification requirements.

### 3.2 PREPARATION

- A. Clean surfaces to receive work.
- B. Protect surrounding elements from work of this section.

### 3.3 WIRING METHODS

- A. Use specified wiring methods.
- B. Underground Locations:
- C. In or Under Slab-on-Grade:
- D. In Slab above Grade:
- E. Concealed Dry Interior Locations:
  - 1. Flexible metal conduit.
- F. Exposed Dry Interior Locations:
  - 1. EMT.

### 3.4 INSTALLATION

- A. Install products in compliance with manufacturer's instructions.
- B. Install accessories specified in this section.
- C. Maintain required headroom.

### 3.5 FIELD QUALITY CONTROL

- A. Correction of Defective Work:
  - 1. Replace wire and cable damaged during installation.
  - 2. Replace defective products.

END OF SECTION 260510



## SECTION 260518 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Building wires and cables rated 600 V and less.
  - 2. Connectors, splices, and terminations rated 600 V and less.
- B. Related Requirements:
  - 1. Section 260523 "Control-Voltage Electrical Power Cables" for control systems communications cables and Classes 1, 2 and 3 control cables.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.

### PART 2 - PRODUCTS

#### 2.1 CONDUCTORS AND CABLES

- A. Copper Conductors: Comply with NEMA WC 70/ICEA S-95-658.
- B. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN/THWN-2 Type XHHW-2.

#### 2.2 CONNECTORS AND SPLICES

- A. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

#### 2.3 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.

## PART 3 - EXECUTION

### 3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

### 3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Service Entrance: Type XHHW-2, single conductors in raceway
- B. Exposed Feeders: Type THHN/THWN-2, single conductors in raceway, Type XHHW-2, single conductors in raceway
- C. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspace: Type THHN/THWN-2, single conductors in raceway.
- D. Coordinate "Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground" Paragraph below with Section 260543 "Underground Ducts and Raceways for Electrical Systems."
- E. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN/THWN-2, single conductors in raceway, Type XHHW-2, single conductors in raceway.
- F. Exposed Branch Circuits, Including in Crawlspace: Type THHN/THWN-2, single conductors in raceway.
- G. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN/THWN-2, single conductors in raceway, Armored cable, Type AC.
- H. Coordinate "Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground" Paragraph below with Section 260543 "Underground Ducts and Raceways for Electrical Systems."
- I. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN/THWN-2, single conductors in raceway,] Type XHHW-2, single conductors in raceway.

### 3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.

- C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- E. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
- F. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

### 3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
  - 1. Use oxide inhibitor in each splice, termination, and tap for aluminum conductors.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches of slack.

### 3.5 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

### 3.6 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

### 3.7 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly.

### 3.8 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:

1. After installing conductors and cables and before electrical circuitry has been energized, test service entrance and feeder conductors and conductors.
  2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
  3. Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each splice in conductors No. 3 AWG and larger. Remove box and equipment covers so splices are accessible to portable scanner. Correct deficiencies determined during the scan.
    - a. Follow-up Infrared Scanning: Perform an additional follow-up infrared scan of each splice 11 months after date of Substantial Completion.
    - b. Instrument: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
    - c. Record of Infrared Scanning: Prepare a certified report that identifies splices checked and that describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.
- B. Test and Inspection Reports: Prepare a written report to record the following:
1. Procedures used.
  2. Results that comply with requirements.
  3. Results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- C. Cables will be considered defective if they do not pass tests and inspections.

END OF SECTION 260518

## SECTION 260519 - WIRE AND CABLE

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Wire.

#### 1.2 REFERENCES

- A. NFPA 70-93 -- National Electrical Code; National Fire Protection Association; 2008.
- B. Standard of Installation; National Electrical Contractors Association (NECA).

#### 1.3 SUBMITTALS

- A. Field test report for each inspection and test specified in this section, for information. Describe inspections and tests, list observations, indicate corrective action taken, and state conclusions and recommendations for future action.
- B. Project Record Documents:
  - 1. Coordination drawings.

#### 1.4 QUALITY ASSURANCE

- A. Conform to NFPA 70.
- B. Conform to requirements of NECA "Standard of Installation" that do not conflict with regulatory requirements or requirements of contract documents.
- C. Furnish products listed by Underwriters Laboratories Inc. and classified as suitable for installed use and environmental conditions.

#### 1.5 PROJECT CONDITIONS

- A. Review drawings to determine project conditions.
- B. Determine working clearance around and between construction elements such as beams, columns, walls, and ceilings.
- C. Determine access requirements around other work, including working clearances to mechanical equipment, controls, and electrical equipment.

#### 1.6 COORDINATION

- A. Prepare coordination drawings and distribute to affected installers of related work.
  - 1. Indicate requirements for access openings in building finishes.

### PART 2 - PRODUCTS

## 2.1 INSULATED WIRE AND CABLE

- A. Conductor: Copper.
- B. Insulation:
  - 1. THHN/THW/XHHM
- C. Voltage: 600 volts.
- D. Insulation Color:
  - 1. 208 volt system: Blue-red-black-white.
  - 2. 480 volt system: Yellow-orange-brown-gray.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine elements and surfaces intended to support products.
- B. Verify that each product conforms to regulatory requirements and to specification requirements.

### 3.2 PREPARATION

- A. Clean surfaces to receive work.
- B. Protect surrounding elements from work of this section.
- C. Clean raceways thoroughly before installing wires.

### 3.3 WIRING METHODS

- A. Use specified wiring methods.
- B. Underground Locations:
- C. In or Under Slab-on-Grade:
- D. In Slab above Grade:
- E. Concealed Dry Interior Locations:
- F. Exposed Dry Interior Locations:

### 3.4 INSTALLATION

- A. Install products in compliance with manufacturer's instructions.
- B. Install accessories specified in this section.
- C. Maintain required headroom.

- D. Identification:
  - 1. Use wire markers at each box and enclosure to identify conductors.
  - 2. Identify each feeder number with its designation shown on drawings.
  - 3. Identify each branch circuit conductor with panelboard and circuit number.
  - 4. Identify each control circuit conductor with wire number shown on drawings.

### 3.5 FIELD QUALITY CONTROL

- A. Inspect wires and cables for physical damage.
- B. Insulation Resistance:
  - 1. Test each service and feeder circuit.
  - 2. Test each conductor with respect to ground and to its adjacent conductors.
  - 3. Apply 1000 volts dc test potential for 1 minute.
  - 4. Minimum insulation resistance: 2 megohms.
- C. Correction of Defective Work:
  - 1. Replace wire and cable damaged during installation.
  - 2. Replace defective products.

END OF SECTION 260519





## SECTION 260526 - GROUNDING AND BONDING

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. This Section includes grounding of electrical systems and equipment. Requirements specified in this Section may be supplemented by requirements of other Sections.

#### 1.02 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled under UL 467 as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70; for overhead-line construction and medium-voltage underground construction, comply with IEEE C2.
- C. Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system.

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Apache Grounding/Erico Inc.
  - 2. Boggs, Inc.
  - 3. Chance/Hubbell.
  - 4. Copperweld Corp.
  - 5. Dossert Corp.
  - 6. Erico Inc.; Electrical Products Group.
  - 7. Framatome Connectors/Burndy Electrical.
  - 8. Galvan Industries, Inc.
  - 9. Harger Lightning Protection, Inc.
  - 10. Hastings Fiber Glass Products, Inc.
  - 11. Heary Brothers Lightning Protection Co.
  - 12. Ideal Industries, Inc.
  - 13. ILSCO.
  - 14. Kearney/Cooper Power Systems.
  - 15. Korns, C. C. Co.; Division of Robroy Industries.
  - 16. Lightning Master Corp.
  - 17. Lyncole XIT Grounding.
  - 18. O-Z/Gedney Co.; a business of the EGS Electrical Group.

19. Raco, Inc.; Division of Hubbell.
20. Robbins Lightning, Inc.
21. Salisbury, W. H. & Co.
22. Superior Grounding Systems, Inc.
23. Thomas & Betts, Electrical.

## 2.02 GROUNDING CONDUCTORS

- A. For insulated conductors, comply with Division 16 Section "Conductors and Cables."
- B. Equipment Grounding Conductors: Insulated with green-colored insulation.
- C. Isolated Ground Conductors: Insulated with green-colored insulation with yellow stripe. On feeders with isolated ground, use colored tape, alternating bands of green and yellow tape to provide a minimum of three bands of green and two bands of yellow.
- D. Grounding Electrode Conductors: Stranded cable.
- E. Underground Conductors: Bare, tinned, stranded, unless otherwise indicated.
- F. Bare, Solid-Copper Conductors: ASTM B 3.
- G. Assembly of Bare, Stranded-Copper Conductors: ASTM B 8.
- H. Bare, Tinned-Copper Conductors: ASTM B 33.
- I. Copper Bonding Conductor: No. 4 or No. 6 AWG, stranded copper conductor.
- J. Copper Bonding Jumper: Bare copper tape, braided bare copper conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.
- K. Tinned-Copper Bonding Jumper: Tinned-copper tape, braided copper conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.
- L. Ground Conductor for Overhead Distribution: No. 4 AWG minimum, soft-drawn copper.
- M. Grounding Bus: Bare, annealed copper bars of rectangular cross section, with insulated spacer.
- N. Connectors: Comply with IEEE 837 and UL 467; listed for use for specific types, sizes, and combinations of conductors and connected items. Bolted type or exothermic-welded type, in kit form, selected per manufacturer's written instructions.

## 2.03 GROUNDING ELECTRODES

- A. Ground Rods: Copper-clad.
  1. Size: 3/4 by 120 inches in diameter.

## PART 3 - EXECUTION

### 3.01 INSTALLATION

- A. Use only copper conductors for both insulated and bare grounding conductors in direct contact with earth, concrete, masonry, crushed stone, and similar materials.
- B. In raceways, use insulated equipment grounding conductors.
- C. Exothermic-Welded Connections: Use for connections to structural steel and for underground connections.
- D. Equipment Grounding Conductors: Comply with NFPA 70, Article 250, for types, sizes, and quantities of equipment grounding conductors, unless specific types, larger sizes, or more conductors than required by NFPA 70 are indicated.
  - 1. Install insulated equipment grounding conductors in feeders and branch circuits and receptacle circuits.
  - 2. Nonmetallic Raceways: Install an equipment grounding conductor in nonmetallic raceways unless they are designated for telephone or data cables.
  - 3. Air-Duct Equipment Circuits: Install an insulated equipment grounding conductor to duct-mounted electrical devices operating at 120 V and more, including air cleaners and heaters. Bond conductor to each unit and to air duct.
- E. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- F. Bonding Straps and Jumpers: Install so vibration by equipment mounted on vibration isolation hangers or supports is not transmitted to rigidly mounted equipment. Use exothermic-welded connectors for outdoor locations, unless a disconnect-type connection is required; then, use a bolted clamp. Bond straps directly to the basic structure taking care not to penetrate any adjacent parts. Install straps only in locations accessible for maintenance.
- G. Metal Water Service Pipe: Provide insulated copper grounding conductors, in conduit, from building's main service equipment, or grounding bus, to main metal water service entrances to building. Connect grounding conductors to main metal water service pipes by grounding clamp connectors. Where a dielectric main water fitting is installed, connect grounding conductor to street side of fitting. Bond metal grounding conductor conduit or sleeve to conductor at each end.
- H. Water Meter Piping: Use braided-type bonding jumpers to electrically bypass water meters. Connect to pipe with grounding clamp connectors.
- I. Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system.
- J. Bond interior metal piping systems and metal air ducts to equipment grounding conductors of associated pumps, fans, blowers, electric heaters, and air cleaners. Use braided-type bonding straps.

- K. Bond each aboveground portion of gas piping system upstream from equipment shutoff valve.
- L. Connections: Make connections so galvanic action or electrolysis possibility is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
  - 1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer to order of galvanic series.
  - 2. Make connections with clean, bare metal at points of contact.
  - 3. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
  - 4. Make aluminum-to-galvanized steel connections with tin-plated copper jumpers and mechanical clamps.
  - 5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.
  - 6. Exothermic-Welded Connections: Comply with manufacturer's written instructions. Welds that are puffed up or that show convex surfaces indicating improper cleaning are not acceptable.
  - 7. Equipment Grounding Conductor Terminations: For No. 8 AWG and larger, use pressure-type grounding lugs. No. 10 AWG and smaller grounding conductors may be terminated with winged pressure-type connectors.
  - 8. Noncontact Metal Raceway Terminations: If metallic raceways terminate at metal housings without mechanical and electrical connection to housing, terminate each conduit with a grounding bushing. Connect grounding bushings with a bare grounding conductor to grounding bus or terminal in housing. Bond electrically noncontinuous conduits at entrances and exits with grounding bushings and bare grounding conductors, unless otherwise indicated.
  - 9. Tighten screws and bolts for grounding and bonding connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A.
  - 10. Compression-Type Connections: Use hydraulic compression tools to provide correct circumferential pressure for compression connectors. Use tools and dies recommended by connector manufacturer. Provide embossing die code or other standard method to make a visible indication that a connector has been adequately compressed on grounding conductor.
  - 11. Moisture Protection: If insulated grounding conductors are connected to ground rods or grounding buses, insulate entire area of connection and seal against moisture penetration of insulation and cable.

### 3.02 FIELD QUALITY CONTROL

- A. Testing: Perform the following field quality-control testing:
  - 1. After installing grounding system but before permanent electrical circuitry has been energized, test for compliance with requirements.
  - 2. Test completed grounding system at each location where a maximum ground-resistance level is indicated and at service disconnect enclosure grounding terminal. Measure ground resistance not less than two full days after the last trace of precipitation, and without the soil being moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance. Perform tests, by the fall-of-potential method according to IEEE 81.

3. Provide drawings locating each ground rod, ground rod assembly, and other grounding electrodes. Identify each by letter in alphabetical order, and key to the record of tests and observations. Include the number of rods driven and their depth at each location and include observations of weather and other phenomena that may affect test results. Describe measures taken to improve test results. Nominal maximum values are as follows:
  - a. Equipment Rated 500 kVA and Less: 10 ohms.

END OF SECTION 260526



## SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes:
  - 1. Hangers and supports for electrical equipment and systems.
  - 2. Construction requirements for concrete bases.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design supports for multiple raceways, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
- C. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
- D. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.

#### 1.3 SUBMITTALS

- A. Product Data: For steel slotted support systems.
- B. Shop Drawings: Show fabrication and installation details and include calculations for the following:
  - 1. Trapeze hangers. Include Product Data for components.
  - 2. Steel slotted channel systems. Include Product Data for components.
  - 3. Equipment supports.
- C. Welding certificates.

#### 1.4 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Comply with NFPA 70.

## PART 2 - PRODUCTS

### 2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Allied Tube & Conduit.
    - b. Cooper B-Line, Inc.; a division of Cooper Industries.
    - c. ERICO International Corporation.
    - d. GS Metals Corp.
    - e. Thomas & Betts Corporation.
    - f. Unistrut; Tyco International, Ltd.
    - g. Wesanco, Inc.
  3. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
  4. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
  5. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
  6. Channel Dimensions: Selected for applicable load criteria.
- B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- C. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.
- E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
    - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:



- b. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1) Hilti Inc.
  - 2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
  - 3) MKT Fastening, LLC.
  - 4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.
  
- 2. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
  - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - b. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - 1) Cooper B-Line, Inc.; a division of Cooper Industries.
    - 2) Empire Tool and Manufacturing Co., Inc.
    - 3) Hilti Inc.
    - 4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
    - 5) MKT Fastening, LLC.
  
- 3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
- 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
- 5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
- 6. Toggle Bolts: All-steel springhead type.
- 7. Hanger Rods: Threaded steel.

## 2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.
- B. Materials: Comply with requirements in Division 5 Section "Metal Fabrications" for steel shapes and plates.

## PART 3 - EXECUTION

### 3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as scheduled in NECA 1, where its Table 1 lists maximum spacings less than stated in NFPA 70. Minimum rod size shall be 1/4 inch (6 mm) in diameter.

- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted or other support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
  - 1. Secure raceways and cables to these supports with two-bolt conduit clamps single-bolt conduit clamps.
- D. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch (38-mm) and smaller raceways serving branch circuits and communication systems above suspended ceilings and for fastening raceways to trapeze supports.

### 3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).
- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
  - 1. To Wood: Fasten with lag screws or through bolts.
  - 2. To New Concrete: Bolt to concrete inserts.
  - 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
  - 4. To Existing Concrete: Expansion anchor fasteners.
  - 5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches (100 mm) thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches (100 mm) thick.
  - 6. To Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69.
  - 7. To Light Steel: Sheet metal screws.
  - 8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

### 3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Comply with installation requirements in Division 5 Section "Metal Fabrications" for site-fabricated metal supports.

- B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.
- C. Field Welding: Comply with AWS D1.1/D1.1M.

### 3.4 CONCRETE BASES

- A. Construct concrete bases of dimensions indicated but not less than 4 inches (100 mm) larger in both directions than supported unit.
- B. Use 3000-psi (20.7-MPa), 28-day compressive-strength concrete. Concrete materials, reinforcement, and placement requirements are specified in Division 3 Section "Cast-in-Place Concrete."
  - 1. .

### 3.5 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
  - 1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils (0.05 mm).
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION 260529



## SECTION 260533 – RACEWAYS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Conduit.
  - 2. Wireway.
- B. Related Sections:
  - 1. Excavation and backfill: Division 2.
  - 2. Firestopping: Division 7.

#### 1.2 REFERENCES

- A. ANSI C80.1 -- American National Standard for Rigid Steel Conduit - Zinc Coated.
- B. ANSI C80.3 -- American National Standard for Electrical Metallic Tubing - Zinc Coated; 1991.
- C. ANSI C80.5 -- American National Standard for Rigid Aluminum Conduit.
- D. NEMA FB 1 -- Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies; National Electrical Manufacturers Association.
- E. NEMA TC 2 -- Electrical Plastic Tubing (EPT) and Conduit (EPC-40 and EPC-80); National Electrical Manufacturers Association.
- F. NEMA TC 3 -- PVC Fittings for Use with Rigid PVC Conduit and Tubing; National Electrical Manufacturers Association.
- G. NFPA 70-93 -- National Electrical Code; National Fire Protection Association.
- H. Standard of Installation; National Electrical Contractors Association (NECA).
- I. UL 1 -- Standard for Flexible Metal Electrical Conduit; Underwriters Laboratories Inc.

#### 1.3 SUBMITTALS

- A. Project Record Documents:
  - 1. Coordination drawings.

#### 1.4 QUALITY ASSURANCE

- A. Conform to NFPA 70.
- B. Conform to requirements of NECA "Standard of Installation" that do not conflict with regulatory requirements or requirements of contract documents.
- C. Furnish products listed by Underwriters Laboratories Inc. and classified as suitable for installed use and environmental conditions.

## 1.5 PROJECT CONDITIONS

- A. Review drawings to determine project conditions.
- B. Determine working clearance around and between construction elements such as beams, columns, walls, and ceilings.
- C. Determine access requirements around other work, including working clearances to mechanical equipment, controls, and electrical equipment.

## 1.6 COORDINATION

- A. Prepare coordination drawings and distribute to affected installers of related work.
  - 1. Indicate raceway routing and elevation.
  - 2. Indicate required separation of conduit from piping and heat generating sources.
  - 3. Indicate requirements for access openings in building finishes.

## PART 2 - PRODUCTS

### 2.1 METAL CONDUIT AND FITTINGS

- A. Rigid Steel Conduit: ANSI C80.1.
- B. Rigid Aluminum Conduit: ANSI C80.5.
- C. Electrical Metallic Tubing: ANSI C80.3 with set-screw or compression type fittings.
- D. Flexible Metal Conduit: UL 1; aluminum.
- E. Liquidtight Flexible Metal Conduit: UL 1; flexible metal conduit with flexible PVC jacket.
- F. Fittings and Conduit Bodies: NEMA FB 1.

### 2.2 NONMETALLIC CONDUIT

- A. Rigid Plastic Conduit: NEMA TC 2, Type EPC-40-PVC.
- B. Plastic Conduit Fittings: NEMA TC 3, PVC plastic.

### 2.3 WIREWAYS

- A. General-Purpose Type:
  - 1. Sheet metal flangeless wireway with screw cover.
  - 2. Finish: Manufacturer's standard.
- B. Oiltight Type:
  - 1. Sheet metal flangeless lay-in wireway with gasketed hinged cover and latch.
  - 2. Finish: Manufacturer's standard.
- C. Size: Indicated on drawings or as required to meet regulatory requirements.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine elements and surfaces intended to support products.
- B. Verify that each product conforms to regulatory requirements and to specification requirements.

### 3.2 PREPARATION

- A. Clean surfaces to receive work.
- B. Protect surrounding elements from work of this section.

### 3.3 RACEWAY APPLICATIONS

- A. Use specified wiring methods.
- B. Underground Locations:
  - 1. Rigid steel conduit.
- C. In or Under Slab-on-Grade:
  - 1. Rigid steel conduit.
  - 2. Rigid plastic conduit.
- D. In Slab above Grade:
  - 1. Rigid steel conduit.
  - 2. Electrical metallic tubing.
- E. Concealed Dry Interior Locations:
  - 1. Rigid steel conduit.
  - 2. Electrical metallic tubing.

### 3.4 INSTALLATION

- A. Install products in compliance with manufacturer's instructions.
- B. Install accessories specified in this section.
- C. Maintain required headroom.

### 3.5 RACEWAY INSTALLATION

- A. Conduit:
  - 1. Route exposed conduit perpendicular and parallel to building surfaces.
  - 2. Maintain adequate clearance between conduit and piping.
  - 3. Use appropriate conduit clamps and hangers to secure conduit to surfaces and supports.
  - 4. Group parallel conduits on common support rack. Construct rack for multiple conduits using steel channel. Construct rack to allow installation of 20 percent additional conduits, 2 conduits minimum.
  - 5. Do not fasten conduit with wire or perforated pipe straps.
  - 6. Use suitable fittings for terminating, connecting, and changing direction of conduit.

7. Use suitable expansion and deflection fittings at building expansion joints.
8. Provide pull string in each empty conduit longer than 30 inches.

### 3.6 FIELD QUALITY CONTROL

- A. Correction of Defective Work:
  1. Replace wire and cable damaged during installation.
  2. Replace defective products.

### 3.7 PROTECTION

- A. Install cap at each end of each installed empty conduit to prevent entrance of moisture and debris.

END OF SECTION 260533



## SECTION 260534 - RACEWAYS AND BOXES

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.
- B. See Division 2 Section "Underground Ducts and Utility Structures" for exterior ductbanks, manholes, and underground utility construction.
- C. See Division 7 Section "Through-Penetration Firestop Systems" for firestopping materials and installation at penetrations through walls, ceilings, and other fire-rated elements.
- D. See Division 16 Section "Basic Electrical Materials and Methods" for supports, anchors, and identification products.
- E. See Division 16 Section "Wiring Devices" for devices installed in boxes.

#### 1.02 SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets indicated.
- B. Shop Drawings: Show fabrication and installation details of components for raceways, fittings, boxes, enclosures, and cabinets.

#### 1.03 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURERS

- A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
  - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.
  - 2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

## 2.02 METAL CONDUIT AND TUBING

### A. Manufacturers:

1. AFC Cable Systems, Inc.
2. Alflec Inc.
3. Anamet Electrical, Inc.; Anaconda Metal Hose.
4. Electri-Flex Co.
5. Grinnell Co./Tyco International; Allied Tube and Conduit Div.
6. LTV Steel Tubular Products Company.
7. Manhattan/CDT/Cole-Flex.
8. O-Z Gedney; Unit of General Signal.
9. Wheatland Tube Co.

### B. Rigid Steel Conduit: ANSI C80.1.

### C. IMC: ANSI C80.6.

### D. EMT and Fittings: ANSI C80.3.

1. Fittings: Set-screw or compression type.

### E. LFMC: Flexible steel conduit with PVC jacket.

### F. Fittings: NEMA FB 1; compatible with conduit and tubing materials.

## 2.03 NONMETALLIC CONDUIT AND TUBING

### A. Manufacturers:

1. American International.
2. Anamet Electrical, Inc.; Anaconda Metal Hose.
3. Arnco Corp.
4. Cantex Inc.
5. Certainteed Corp.; Pipe & Plastics Group.
6. Condux International.
7. ElecSYS, Inc.
8. Electri-Flex Co.
9. Lamson & Sessions; Carlon Electrical Products.
10. Manhattan/CDT/Cole-Flex.
11. RACO; Division of Hubbell, Inc.
12. Spiralduct, Inc./AFC Cable Systems, Inc.
13. Thomas & Betts Corporation.

### B. ENT: NEMA TC 13.

### C. PVC: NEMA TC 2, Schedule 40 and Schedule 80 PVC.

### D. ENT and RNC Fittings: NEMA TC 3; match to conduit or tubing type and material.

### E. LFNC: UL 1660.

## 2.04 METAL WIREWAYS

- A. Manufacturers:
  - 1. Hoffman.
  - 2. Square D.
- B. Material and Construction: Sheet metal sized and shaped as indicated, NEMA 1 or 3R as applicable.
- C. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- D. Select features, unless otherwise indicated, as required to complete wiring system and to comply with NFPA 70.
- E. Wireway Covers: Hinged type.
- F. Finish: Manufacturer's standard enamel finish.

## 2.05 NONMETALLIC WIREWAYS

- A. Manufacturers:
  - 1. Hoffman.
  - 2. Lamson & Sessions; Carlon Electrical Products.
- B. Description: PVC plastic, extruded and fabricated to size and shape indicated, with snap-on cover and mechanically coupled connections with plastic fasteners.
- C. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- D. Select features, unless otherwise indicated, as required to complete wiring system and to comply with NFPA 70.

## 2.06 SURFACE RACEWAYS

- A. Surface Nonmetallic Raceways: Two-piece construction, manufactured of rigid PVC compound with matte texture and manufacturer's standard color.
  - 1. Manufacturers:
    - a. Butler Manufacturing Co.; Walker Division.
    - b. Enduro Composite Systems.
    - c. Hubbell, Inc.; Wiring Device Division.
    - d. Lamson & Sessions; Carlon Electrical Products.
    - e. Panduit Corp.
    - f. Walker Systems, Inc.; Wiremold Company (The).
    - g. Wiremold Company (The); Electrical Sales Division.

- B. Types, sizes, and channels as indicated and required for each application, with fittings that match and mate with raceways.

## 2.07 BOXES, ENCLOSURES, AND CABINETS

### A. Manufacturers:

1. Cooper Crouse-Hinds; Div. of Cooper Industries, Inc.
2. Emerson/General Signal; Appleton Electric Company.
3. Erickson Electrical Equipment Co.
4. Hoffman.
5. Hubbell, Inc.; Killark Electric Manufacturing Co.
6. O-Z/Gedney; Unit of General Signal.
7. RACO; Division of Hubbell, Inc.
8. Robroy Industries, Inc.; Enclosure Division.
9. Scott Fetzer Co.; Adalet-PLM Division.
10. Spring City Electrical Manufacturing Co.
11. Thomas & Betts Corporation.
12. Walker Systems, Inc.; Wiremold Company (The).
13. Woodhead, Daniel Company; Woodhead Industries, Inc. Subsidiary.

B. Sheet Metal Outlet and Device Boxes: NEMA OS 1.

C. Cast-Metal Outlet and Device Boxes: NEMA FB 1, Type FD, with gasketed cover.

D. Nonmetallic Outlet and Device Boxes: NEMA OS 2.

E. Floor Boxes: Cast metal, fully adjustable, rectangular.

F. Floor Boxes: Nonmetallic, nonadjustable, round.

G. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.

H. Cast-Metal Pull and Junction Boxes: NEMA FB 1, cast aluminum with gasketed cover.

I. Hinged-Cover Enclosures: NEMA 250, Type 1, with continuous hinge cover and flush latch.

1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
2. Nonmetallic Enclosures: Plastic, finished inside with radio-frequency-resistant paint.

J. Cabinets: NEMA 250, Type 1, galvanized steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel. Hinged door in front cover with flush latch and concealed hinge. Key latch to match panelboards. Include metal barriers to separate wiring of different systems and voltage and include accessory feet where required for freestanding equipment.

## PART 3 - EXECUTION

### 3.01 RACEWAY APPLICATION

#### A. Outdoors:

1. Exposed: Rigid steel or IMC.
2. Concealed: Rigid steel or IMC.
3. Underground, Single Run: RNC.
4. Underground, Grouped: RNC.
5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
6. Boxes and Enclosures: NEMA 250, Type 4.

#### B. Indoors:

1. Exposed: EMT .
2. Concealed: EMT.
3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC; except use LFMC in damp or wet locations.
4. Damp or Wet Locations: Rigid steel conduit.
5. Boxes and Enclosures: NEMA 250, Type 1, except as follows:
  - a. Damp or Wet Locations: NEMA 250, Type 4, nonmetallic.

#### C. Minimum Raceway Size: 3/4-inch trade size.

#### D. Raceway Fittings: Compatible with raceways and suitable for use and location.

1. Intermediate Steel Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.
2. PVC Externally Coated, Rigid Steel Conduits: Use only fittings approved for use with that material. Patch all nicks and scrapes in PVC coating after installing conduits.

#### E. Install nonferrous conduit or tubing for circuits operating above 60 Hz. Where aluminum raceways are installed for such circuits and pass through concrete, install in nonmetallic sleeve.

#### F. Do not install aluminum conduits embedded in or in contact with concrete.

### 3.02 INSTALLATION

- A. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- B. Complete raceway installation before starting conductor installation.
- C. Support raceways as specified in Division 16 Section "Basic Electrical Materials and Methods."

- D. Install temporary closures to prevent foreign matter from entering raceways.
- E. Protect stub-ups from damage where conduits rise through floor slabs. Arrange so curved portions of bends are not visible above finished slab.
- F. Make bends and offsets so ID is not reduced. Keep legs of bends in same plane and keep straight legs of offsets parallel, unless otherwise indicated.
- G. Conceal conduit and EMT within finished walls, ceilings, and floors, unless otherwise indicated.
  - 1. Install concealed raceways with a minimum of bends in shortest practical distance, considering type of building construction and obstructions, unless otherwise indicated.
- H. Install exposed raceways parallel or at right angles to nearby surfaces or structural members and follow surface contours as much as possible.
  - 1. Run parallel or banked raceways together on common supports.
  - 2. Make parallel bends in parallel or banked runs. Use factory elbows only where elbows can be installed parallel; otherwise, provide field bends for parallel raceways.
- I. Join raceways with fittings designed and approved for that purpose and make joints tight.
  - 1. Use insulating bushings to protect conductors.
- J. Tighten set screws of threadless fittings with suitable tools.
- K. Terminations:
  - 1. Where raceways are terminated with locknuts and bushings, align raceways to enter squarely and install locknuts with dished part against box. Use two locknuts, one inside and one outside box.
  - 2. Where raceways are terminated with threaded hubs, screw raceways or fittings tightly into hub so end bears against wire protection shoulder. Where chase nipples are used, align raceways so coupling is square to box; tighten chase nipple so no threads are exposed.
- L. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire.
- M. Install raceway sealing fittings at suitable, approved, and accessible locations and fill them with UL-listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points:
  - 1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
  - 2. Where otherwise required by NFPA 70.

- N. Stub-up Connections: Extend conduits through concrete floor for connection to freestanding equipment. Install with an adjustable top or coupling threaded inside for plugs set flush with finished floor. Extend conductors to equipment with rigid steel conduit; FMC may be used 6 inches above the floor. Install screwdriver-operated, threaded plugs flush with floor for future equipment connections.
- O. Flexible Connections: Use maximum of 72 inches of flexible conduit for recessed and semi-recessed lighting fixtures; for equipment subject to vibration, noise transmission, or movement; and for all motors. Use LFMC in damp or wet locations. Install separate ground conductor across flexible connections.
- P. Surface Raceways: Install a separate, green, ground conductor in raceways from junction box supplying raceways to receptacle or fixture ground terminals.
- Q. Set floor boxes level. Trim after installation to fit flush with finished floor surface.
- R. Install hinged-cover enclosures and cabinets plumb. Support at each corner.

### 3.03 PROTECTION

- A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.
  - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
  - 2. Repair damage to PVC or paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION 260534





## SECTION 260548.16 - SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Restraint channel bracings.
  - 2. Restraint cables.
  - 3. Seismic-restraint accessories.
  - 4. Mechanical anchor bolts.
  - 5. Adhesive anchor bolts.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Illustrate and indicate style, material, strength, fastening provision, and finish for each type and size of seismic-restraint component used.
    - a. Tabulate types and sizes of seismic restraints, complete with report numbers and rated strength in tension and shear as evaluated by an evaluation service member of ICC-ES/OSHPD or an agency acceptable to authorities having jurisdiction].
    - b. Annotate to indicate application of each product submitted and compliance with requirements.
- B. Delegated-Design Submittal: For each seismic-restraint device.
  - 1. Include design calculations and details for selecting seismic restraints complying with performance requirements, design criteria, and analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
  - 2. Design Calculations: Calculate static and dynamic loading caused by equipment weight, operation, and seismic forces required to select seismic restraints.
    - a. Coordinate design calculations with wind load calculations required for equipment mounted outdoors. Comply with requirements in other Sections for equipment mounted outdoors.
  - 3. Seismic Restraint Details:
    - a. Design Analysis: To support selection and arrangement of seismic restraints. Include calculations of combined tensile and shear loads.

- b. Details: Indicate fabrication and arrangement. Detail attachments of restraints to the restrained items and to the structure. Show attachment locations, methods, and spacings. Identify components, list their strengths, and indicate directions and values of forces transmitted to the structure during seismic events. Indicate association with vibration isolation devices.
- c. Preapproval and Evaluation Documentation: By an evaluation service member of ICC-ES, OSHPD or an agency acceptable to authorities having jurisdiction, showing maximum ratings of restraint items and the basis for approval (tests or calculations).

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Welding certificates.
- B. Field quality-control reports.

#### 1.5 QUALITY ASSURANCE

- A. Comply with seismic-restraint requirements in the IBC unless requirements in this Section are more stringent.
- B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- C. Seismic-restraint devices shall have horizontal and vertical load testing and analysis. They shall bear anchorage preapproval from OSHPD in addition to preapproval, showing maximum seismic-restraint ratings, by ICC-ES or another agency acceptable to authorities having jurisdiction. Ratings based on independent testing are preferred to ratings based on calculations. If preapproved ratings are not available, submittals based on independent testing are preferred. Calculations (including combining shear and tensile loads) that support seismic-restraint designs must be signed and sealed by a qualified professional engineer.
- D. Comply with NFPA 70.

### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

- A. Seismic-Restraint Loading:
  - 1. Site Class as Defined in the IBC: **A**.
  - 2. Assigned Seismic Use Group or Building Category as Defined in the IBC: **II**

#### 2.2 RESTRAINT CHANNEL BRACINGS

- A. Description: MFMA-4, shop- or field-fabricated bracing assembly made of slotted steel channels with accessories for attachment to braced component at one end and to building structure at the

other end, with other matching components, and with corrosion-resistant coating; rated in tension, compression, and torsion forces.

### 2.3 RESTRAINT CABLES

- A. Restraint Cables: ASTM A 492 stainless steel cables. End connections made of steel assemblies with thimbles, brackets, swivel, and bolts designed for restraining cable service; with a minimum of two clamping bolts for cable engagement.

### 2.4 SEISMIC-RESTRAINT ACCESSORIES

- A. Hanger-Rod Stiffener Reinforcing steel angle clamped to hanger rod.
- B. Hinged and Swivel Brace Attachments: Multifunctional steel connectors for attaching hangers to rigid channel bracings and restraint cables.
- C. Bushings for Floor-Mounted Equipment Anchor Bolts: Neoprene bushings designed for rigid equipment mountings and matched to type and size of anchor bolts and studs.
- D. Bushing Assemblies for Wall-Mounted Equipment Anchorage: Assemblies of neoprene elements and steel sleeves designed for rigid equipment mountings and matched to type and size of attachment devices used.
- E. Resilient Isolation Washers and Bushings: One-piece, molded, oil- and water-resistant neoprene, with a flat washer face.

### 2.5 MECHANICAL ANCHOR BOLTS

- A. Mechanical Anchor Bolts: Drilled-in and stud-wedge or female-wedge type in zinc-coated steel for interior applications and stainless steel for exterior applications. Select anchor bolts with strength required for anchor and as tested according to ASTM E 488.

### 2.6 ADHESIVE ANCHOR BOLTS

- A. Adhesive Anchor Bolts: Drilled-in and capsule anchor system containing PVC or urethane methacrylate-based resin and accelerator, or injected polymer or hybrid mortar adhesive. Provide anchor bolts and hardware with zinc-coated steel for interior applications and stainless steel for exterior applications. Select anchor bolts with strength required for anchor and as tested according to ASTM E 488.

## PART 3 - EXECUTION

### 3.1 APPLICATIONS

- A. Multiple Raceways or Cables: Secure raceways and cables to trapeze member with clamps approved for application by an evaluation service member of ICC-ES/OSHPD or an agency acceptable to authorities having jurisdiction.

- B. Indicate on Drawings, by details, schedules, or a combination of both, the locations where hanger rods for individual raceways, bus duct, cable trays, and hanger rods for trapeze hangers require hanger-rod stiffeners.
- C. Hanger-Rod Stiffeners: Install hanger-rod stiffeners where indicated or scheduled on Drawings to receive them and where required to prevent buckling of hanger rods caused by seismic forces.
- D. Strength of Support and Seismic-Restraint Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static and seismic loads within specified loading limits.

### 3.2 SEISMIC-RESTRAINT DEVICE INSTALLATION

- A. Equipment and Hanger Restraints:
  - B. Install resilient, bolt-isolation washers on equipment anchor bolts where clearance between anchor and adjacent surface exceeds 0.125 inch
  - C. Install seismic-restraint devices using methods approved by an evaluation service member of ICC-ES/OSHPD or an agency acceptable to authorities having jurisdiction providing required submittals for component.
  - D. Install cables so they do not bend across edges of adjacent equipment or building structure.
  - E. Install bushing assemblies for mounting bolts for wall-mounted equipment, arranged to provide resilient media where equipment or equipment-mounting channels are attached to wall.
  - F. Attachment to Structure: If specific attachment is not indicated, anchor bracing to structure at flanges of beams, at upper truss chords of bar joists, or at concrete members.
  - G. Drilled-in Anchors:
    - 1. Identify position of reinforcing steel and other embedded items prior to drilling holes for anchors. Do not damage existing reinforcing or embedded items during coring or drilling. Notify the structural engineer if reinforcing steel or other embedded items are encountered during drilling. Locate and avoid pre-stressed tendons, electrical and telecommunications conduit, and gas lines.
    - 2. Do not drill holes in concrete or masonry until concrete, mortar, or grout has achieved full design strength.
    - 3. Wedge Anchors: Protect threads from damage during anchor installation. Heavy-duty sleeve anchors shall be installed with sleeve fully engaged in the structural element to which anchor is to be fastened.
    - 4. Adhesive Anchors: Clean holes to remove loose material and drilling dust prior to installation of adhesive. Place adhesive in holes proceeding from the bottom of the hole and progressing toward the surface in such a manner as to avoid introduction of air pockets in the adhesive.
    - 5. Set anchors to manufacturer's recommended torque using a torque wrench.
    - 6. Install zinc-coated steel anchors for interior and stainless-steel anchors for exterior applications.

### 3.3 ACCOMMODATION OF DIFFERENTIAL SEISMIC MOTION

- A. Install flexible connections in runs of raceways, cables, wireways, cable trays, and busways where they cross seismic joints, where adjacent sections or branches are supported by different structural elements, and where connection is terminated to equipment that is anchored to a different structural element from the one supporting them as they approach equipment.

### 3.4 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
- B. Obtain Architect's approval before transmitting test loads to structure. Provide temporary load-spreading members.
- C. Test at least four of each type and size of installed anchors and fasteners selected by Architect.
  - 1. Test to 90 percent of rated proof load of device.
- D. Seismic controls will be considered defective if they do not pass tests and inspections.
- E. Prepare test and inspection reports.

### 3.5 ADJUSTING

- A. Adjust restraints to permit free movement of equipment within normal mode of operation.

END OF SECTION 260548.16



## SECTION 260553 - ELECTRICAL IDENTIFICATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
1. Identification for raceways.
  2. Identification of power and control cables.
  3. Identification for conductors.
  4. Underground-line warning tape.
  5. Warning labels and signs.
  6. Instruction signs.
  7. Equipment identification labels.
  8. Miscellaneous identification products.

#### 1.2 SUBMITTALS

- A. Product Data: For each electrical identification product indicated.

#### 1.3 QUALITY ASSURANCE

- A. Comply with ANSI A13.1.
- B. Comply with NFPA 70.
- C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- D. Comply with ANSI Z535.4 for safety signs and labels.
- E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

### PART 2 - PRODUCTS

#### 2.1 POWER RACEWAY IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway size.
- B. Colors for Raceways Carrying Circuits at 600 V or Less:
1. Black letters on an orange field.
  2. Legend: Indicate voltage and system or service type.

- C. Self-Adhesive Vinyl Labels for Raceways Carrying Circuits at 600 V or Less: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- D. Snap-Around Labels for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- E. Snap-Around, Color-Coding Bands for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- F. Write-On Tags: Polyester tag, 0.015 inch (0.38 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
  - 1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.
  - 2. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

## 2.2 ARMORED AND METAL-CLAD CABLE IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.
- B. Colors for Raceways Carrying Circuits at 600 V and Less:
  - 1. Black letters on an orange field.
  - 2. Legend: Indicate voltage and system or service type.
- C. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- D. Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; 2 inches (50 mm) wide; compounded for outdoor use.

## 2.3 POWER AND CONTROL CABLE IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.
- B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- C. Write-On Tags: Polyester tag, 0.010 inch (0.25 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.
  - 1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.



2. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

D. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

E. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

## 2.4 CONDUCTOR IDENTIFICATION MATERIALS

A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.

B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

C. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.

D. Write-On Tags: Polyester tag, 0.015 inch (0.38 mm) thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.

1. Marker for Tags: Permanent, waterproof, black ink marker recommended by tag manufacturer.

2. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.

## 2.5 FLOOR MARKING TAPE

A. 2-inch- (50-mm-) wide, 5-mil (0.125-mm) pressure-sensitive vinyl tape, with black and white stripes and clear vinyl overlay.

## 2.6 UNDERGROUND-LINE WARNING TAPE

A. Tape:

1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical and communications utility lines.

2. Printing on tape shall be permanent and shall not be damaged by burial operations.

3. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.

B. Color and Printing:

1. Comply with ANSI Z535.1 through ANSI Z535.5.

2. Inscriptions for Red-Colored Tapes: ELECTRIC LINE, HIGH VOLTAGE,.
3. Inscriptions for Orange-Colored Tapes: TELEPHONE CABLE, CATV CABLE, COMMUNICATIONS CABLE, OPTICAL FIBER CABLE,.

## 2.7 WARNING LABELS AND SIGNS

- A. Comply with NFPA 70 and 29 CFR 1910.145.
- B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.
- C. Baked-Enamel Warning Signs:
  1. Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application.
  2. 1/4-inch (6.4-mm) grommets in corners for mounting.
  3. Nominal size, 7 by 10 inches (180 by 250 mm).
- D. Metal-Backed, Butyrate Warning Signs:
  1. Weather-resistant, nonfading, preprinted, cellulose-acetate butyrate signs with 0.0396-inch (1-mm) galvanized-steel backing; and with colors, legend, and size required for application.
  2. 1/4-inch (6.4-mm) grommets in corners for mounting.
  3. Nominal size, 10 by 14 inches (250 by 360 mm).
- E. Warning label and sign shall include, but are not limited to, the following legends:
  1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."
  2. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES (915 MM)."
  3. Insert names and wording of warning signs or labels; e.g., arc-flash, multiple services and voltages, and others.

## 2.8 INSTRUCTION SIGNS

- A. Engraved, laminated acrylic or melamine plastic, minimum 1/16 inch (1.6 mm) thick for signs up to 20 sq. inches (129 sq. cm) and 1/8 inch (3.2 mm) thick for larger sizes.
  1. Engraved legend with black letters on white face <Insert colors>.
  2. Punched or drilled for mechanical fasteners.
  3. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.
- B. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm).

- C. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm). Overlay shall provide a weatherproof and UV-resistant seal for label.

## 2.9 EQUIPMENT IDENTIFICATION LABELS

- A. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm). Overlay shall provide a weatherproof and UV-resistant seal for label.
- B. Self-Adhesive, Engraved, Laminated Acrylic or Melamine Label: Adhesive backed, with white letters on a dark-gray background. Minimum letter height shall be 3/8 inch (10 mm).
- C. Stenciled Legend: In nonfading, waterproof, black ink or paint. Minimum letter height shall be 1 inch (25 mm).

## 2.10 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Comply with requirements in Division 9 painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- B. Apply identification devices to surfaces that require finish after completing finish work.
- C. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
- D. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
- E. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot (15-m) maximum intervals in straight runs, and at 25-foot (7.6-m) maximum intervals in congested areas.
- F. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches (150 to 200 mm) below

finished grade. Use multiple tapes where width of multiple lines installed in a common trench or concrete envelope exceeds 16 inches (400 mm) overall.

- G. Painted Identification: Comply with requirements in Division 9 painting Sections for surface preparation and paint application.

### 3.2 IDENTIFICATION SCHEDULE

- A. Accessible Raceways and Metal-Clad Cables, 600 V or Less, for Service, Feeder, and Branch Circuits More Than 30 A, and 120 V to ground: Install labels at 30-foot (10-m) maximum intervals.
- B. Accessible Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive vinyl labels with the wiring system legend and system voltage. System legends shall be as follows:
  - 1. Emergency Power – Red Labels with White Letters
  - 2. Power – Black Labels with White Letters
- C. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.
  - 1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded service feeder and branch-circuit conductors.
    - a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit.
    - b. Colors for 208/120-V Circuits:
      - 1) Phase A: Black.
      - 2) Phase B: Red.
      - 3) Phase C: Blue.
    - c. Colors for 480/277-V Circuits:
      - 1) Phase A: Brown.
      - 2) Phase B: Orange.
      - 3) Phase C: Yellow.
    - d. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.
- D. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.
- E. Conductors to Be Extended in the Future: Attach write-on tags to conductors and list source.
- F. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.

1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
  2. Use system of marker tape designations that is uniform and consistent with system used by manufacturer for factory-installed connections.
  3. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual.
- G. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring and optical fiber cable.
1. Limit use of underground-line warning tape to direct-buried cables.
  2. Install underground-line warning tape for both direct-buried cables and cables in raceway.
- H. Workspace Indication: Install floor marking tape to show working clearances in the direction of access to live parts. Workspace shall be as required by NFPA 70 and 29 CFR 1926.403 unless otherwise indicated. Do not install at flush-mounted panelboards and similar equipment in finished spaces.
- I. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Self-adhesive warning labels.
1. Comply with 29 CFR 1910.145.
  2. Identify system voltage with black letters on an orange background.
  3. Apply to exterior of door, cover, or other access.
  4. For equipment with multiple power or control sources, apply to door or cover of equipment including, but not limited to, the following:
    - a. Power transfer switches.
    - b. Controls with external control power connections.
- J. Operating Instruction Signs: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.
- K. Emergency Operating Instruction Signs: Install instruction signs with white legend on a red background with minimum 3/8-inch- (10-mm-) high letters for emergency instructions at equipment used for power transfer.
- L. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.
1. Labeling Instructions:
    - a. Indoor Equipment: Adhesive film label Self-adhesive, engraved, laminated acrylic or melamine label Engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm-) high label; where two lines of text are required, use labels 2 inches (50 mm) high.
    - b. Outdoor Equipment: Engraved, laminated acrylic or melamine label.

- c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
- d. Unless provided with self-adhesive means of attachment, fasten labels with appropriate mechanical fasteners that do not change the NEMA or NRTL rating of the enclosure.

END OF SECTION 260553

## SECTION 262416 – PANELBOARDS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes distribution and branch-circuit panelboards.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of panelboard, overcurrent protective device, accessory, and component indicated. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each panelboard, including the following:
  - 1. Dimensioned plans, elevations, sections, and details. Show tabulations of installed devices, equipment features, and ratings. Include the following data:
    - a. Enclosure types and details for types other than NEMA 250, Type 1.
    - b. Bus configuration, and current, and voltage ratings.
    - c. Short-circuit current rating of panelboards and overcurrent protective devices.
    - d. Listing for series rating of installed devices.
    - e. Features, characteristics, ratings, and factory settings of individual overcurrent protective devices.
  - 2. Wiring Diagrams: Power, signal, and control wiring.
- C. Panelboard Schedules: For installation in panelboards. Submit final versions after load balancing.
- D. Operation and maintenance data.

#### 1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NEMA PB 1.
- C. Comply with NFPA 70.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. Eaton Corp.; Cutler-Hammer Products.
  2. General Electric Co.; Electrical Distribution & Control Div.
  3. Siemens Energy & Automation, Inc.
  4. Square D Co.

### 2.2 FABRICATION AND FEATURES

- A. Enclosures: Flush-mounted cabinets. NEMA PB 1, Type 1, suitable for environmental conditions at installed location.
- B. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.
- C. Finish: Manufacturer's standard enamel finish over corrosion-resistant treatment or primer coat.
- D. Directory Card: With transparent protective cover, mounted in metal frame, inside panelboard door.
- E. Bus: Hard-drawn copper, 98 percent conductivity.
- F. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment ground conductors; bonded to box.
- G. Panelboard Short-Circuit Rating:
1. Fully rated to interrupt symmetrical short-circuit current available at terminals.
- H. Panelboards with Main Service Disconnect: Listed for use as service equipment.
- I. Spaces for Future Devices: Mounting brackets, bus connections, and necessary appurtenances required for future installation of devices.
- J. Skirt for Surface-Mounted Panelboards: Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
- K. Feed-through Lugs: Locate at opposite end of bus from incoming lugs or main device.

### 2.3 LOAD CENTERS

- A. Overcurrent Protective Devices: Bolt-in, full-module circuit breakers.



## 2.4 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- A. Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.
- B. Doors: Front mounted with concealed hinges; secured with flush latch with tumbler lock; keyed alike, door-in-door construction.

## 2.5 DISTRIBUTION PANELBOARDS

- A. Doors: Front mounted, door-in-door construction and secured with vault-type latch with tumbler lock; keyed alike.
- B. Branch overcurrent protective devices shall be one of the following:
  - 1. For Circuit-Breaker Frame Sizes 125 A and Smaller: Bolt-on circuit breakers.
  - 2. For Circuit-Breaker Frame Sizes Larger Than 125 A: Bolt-on circuit breakers; plug-in circuit breakers where individual positive-locking device requires mechanical release for removal.

## 2.6 OVERCURRENT PROTECTIVE DEVICES

- A. Molded-Case Circuit Breaker: NEMA AB 1, with interrupting capacity to meet available fault currents.
  - 1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
  - 2. Application Listing: Appropriate for application; Type HACR for heating, air-conditioning, and refrigerating equipment.
  - 3. Shunt Trip: 120-V trip coil energized from separate circuit, set to trip at 55 percent of rated voltage.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install panelboards and accessories according to NEMA PB 1.1.
  - 1. Install surface mounted unless otherwise indicated.
- B. Mounting Heights: Top of trim 74 inches above finished floor, unless otherwise indicated.
- C. Mounting: Plumb and rigid without distortion of box. Mount recessed panelboards with fronts uniformly flush with wall finish.
- D. Install filler plates in unused protective device spaces.

- E. Wiring in Panelboard Gutters: Arrange conductors into groups and bundle and wrap with wire ties after completing load balancing.

### 3.2 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs as specified in Division 16 Section "Basic Electrical Materials and Methods."
- B. Panelboard Nameplates: Label each panelboard with engraved metal or laminated-plastic nameplate mounted with corrosion-resistant screws.
- C. Circuit Directory: Create a directory to indicate installed circuit loads after balancing panelboard loads. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.

### 3.3 FIELD QUALITY CONTROL

- A. Testing and Inspection: After installing panelboards and after electrical circuitry has been energized, demonstrate product capability and compliance with requirements.
  - 1. Procedures: Perform each electrical test and visual and mechanical inspection indicated in NETA ATS, Section 7.5 for switches and Section 7.6 for molded-case circuit breakers.
  - 2. Test insulation resistance of panelboard bus with a megohmmeter, and ground continuity of cabinet and ground bus. Reject buses with insulation resistance less than 2 megohms.
  - 3. Correct defective and malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
- B. Balancing Loads: After Substantial Completion, but not more than 60 days after Final Acceptance, measure load balancing and make circuit changes as follows:
  - 1. Measure as directed during period of normal system loading.
  - 2. Perform load-balancing circuit changes outside normal occupancy/working schedule of the facility and at time directed. Avoid disrupting critical 24-hour services such as fax machines and on-line data-processing, computing, transmitting, and receiving equipment.
  - 3. After circuit changes, recheck loads during normal load period. Record all load readings before and after changes and submit test records.
  - 4. Tolerance: Difference exceeding 20 percent between phase loads, within a panelboard, is not acceptable. Rebalance and recheck as necessary to meet this minimum requirement.
- C. Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each panelboard. Remove panel fronts so joints and connections are accessible to portable scanner.
  - 1. Instrument: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
  - 2. Record of Infrared Scanning: Prepare a certified report that identifies panelboards checked and describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

END OF SECTION 262416

## SECTION 262725 - WIRING CONNECTIONS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Boxes.
  - 2. Service fittings.
  - 3. Wiring devices.
  - 4. Multioutlet assembly.
  - 5. Equipment connections.

#### 1.2 REFERENCES

- A. NEMA OS 1 -- Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports; National Electrical Manufacturers Association.
- B. NEMA WD 1 -- General Requirements for Wiring Devices; National Electrical Manufacturers Association.
- C. NEMA WD 6 -- Wiring Devices--Dimensional Requirements; National Electrical Manufacturers Association; 1988.
- D. NFPA 70-93 -- National Electrical Code; National Fire Protection Association; 2008.
- E. Standard of Installation; National Electrical Contractors Association (NECA).

#### 1.3 SUBMITTALS

- A. Product data for each wiring device specified in this section.
- B. Product data for each service fitting specified in this section.
- C. Product data for each multioutlet assembly specified in this section.
- D. Manufacturer's qualification statement, for information.
- E. Project Record Documents:
  - 1. Coordination drawings.

#### 1.4 QUALITY ASSURANCE

- A. Conform to NFPA 70.
- B. Conform to requirements of NECA "Standard of Installation" that do not conflict with regulatory requirements or requirements of contract documents.

- C. Furnish products listed by Underwriters Laboratories Inc. and classified as suitable for installed use and environmental conditions.

## 1.5 QUALIFICATIONS

- A. Manufacturer Qualifications: A company manufacturing products of this section which have performed in a satisfactory manner under comparable conditions for a period of 5 years.

## 1.6 PROJECT CONDITIONS

- A. Review drawings to determine project conditions.
- B. Determine working clearance around and between construction elements such as beams, columns, walls, and ceilings.
- C. Determine access requirements around other work, including working clearances to mechanical equipment, controls, and electrical equipment.
- D. Locations of outlets indicated on drawings are approximate unless dimensioned. Determine exact locations before roughing in raceway.

## 1.7 COORDINATION

- A. Use manufacturer's instructions and data to determine rough-in requirements and locations of products connected to electrical wiring.
- B. Prepare coordination drawings and distribute to affected installers of related work.
  - 1. Indicate requirements for access openings in building finishes.

## PART 2 - PRODUCTS

### 2.1 OUTLET AND DEVICE BOXES

- A. Sheet Metal Boxes: NEMA OS 1, galvanized steel.

### 2.2 WALL SWITCHES

- A. Manufacturers: Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
  - 1. Arrow Hart Division/Cooper Industries.
  - 2. GE Wiring Devices.
  - 3. Hubbell Incorporated/Wiring Device Division.
  - 4. Leviton Manufacturing Company, Inc.
  - 5. Pass & Seymour/Legrand Wiring Devices Division.

- B. Single pole wall switch:
  - 1. Description: NEMA WD 1, general duty snap switch.
  - 2. Voltage: 120-277 volts, ac only.
  - 3. Rating: 20 amperes.
  - 4. Handle type: Rocker.
  - 5. Handle color: Ivory.
  - 6. Wall plate: Plastic, to be selected

## 2.3 RECEPTACLES

- A. Manufacturers: Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
  - 1. Arrow Hart Division/Cooper Industries.
  - 2. GE Wiring Devices.
  - 3. Hubbell Incorporated/Wiring Device Division.
  - 4. Leviton Manufacturing Co., Inc.
  - 5. Pass & Seymour/Legrand Wiring Devices Division.
- B. Duplex Convenience Receptacle:
  - 1. Description: NEMA WD 1, general duty type.
  - 2. Device color: Ivory plastic.
  - 3. Configuration: NEMA WD 6, type 5-20.
  - 4. Wall plate: Plastic, to match device color.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine elements and surfaces intended to support products.
- B. Verify that each product conforms to regulatory requirements and to specification requirements.
- C. Verify locations of outlets before roughing in.

### 3.2 PREPARATION

- A. Clean surfaces to receive work.
- B. Protect surrounding elements from work of this section.

### 3.3 INSTALLATION

- A. Install products in compliance with manufacturer's instructions.
- B. Install accessories specified in this section.

- C. Maintain required headroom.

### 3.4 WIRING CONNECTIONS

- A. Make wiring connections in locations that ensure access or provide access panel using materials and methods specified in Division 8.
- B. Fasten conduit to boxes in wet locations using conduit hubs.
- C. Use splice and tap devices compatible with conductor material.
- D. Provide closures on unused openings in boxes.
- E. Outlet and Device Boxes:
  - 1. Install at heights indicated on drawings.
  - 2. Position recessed outlets carefully to allow for surface finish thickness.
  - 3. Separate outlets on both sides of walls by at least 6 inches.
- F. Equipment Connections:
- G. Examine electrical outlets to verify proper location.
- H. Examine branch circuit wiring to verify suitability.
  - 1. Install disconnect switches where indicated.
  - 2. Make wiring connections to equipment using devices and methods recommended by equipment manufacturer.
  - 3. Use conductor insulation with suitable rating for equipment connection.
- I. Paint boxes and enclosures using materials and methods specified in Division 9.
  - 1. Fire alarm: red.

### 3.5 COMMISSIONING

- A. Verify that products connected to wiring system are properly bonded to ground.
- B. Inspect wire connections for proper tightness.
- C. Verify size of overcurrent protection devices.
- D. Verify that wiring connections conform to manufacturer's instructions.
- E. Verify that motor rotation is correct.
- F. Operate electrical system to allow placing connected equipment into operation.

### 3.6 FIELD QUALITY CONTROL

- A. Receptacle Connections: Test each receptacle for proper connection.

- B. Correction of Defective Work:
  - 1. Replace defective products.

### 3.7 CLEANING

- A. Restore damaged corrosion-resistant coatings.

END OF SECTION 262725





## SECTION 262726 - WIRING DEVICES

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. This Section includes the following:
  - 1. Single- and double-pole snap switches and dimmer switches.

#### 1.02 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: List of legends and description of materials and process used for premarking wall plates.
- C. Samples: One for each type of device and wall plate specified, in each color specified.
- D. Field quality-control test reports.

#### 1.03 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Wiring Devices:
    - a. Bryant Electric, Inc./Hubbell Subsidiary.
    - b. Eagle Electric Manufacturing Co., Inc.
    - c. Hubbell Incorporated; Wiring Device-Kellems.
    - d. Leviton Mfg. Company Inc.
    - e. Pass & Seymour/Legrand; Wiring Devices Div.
  - 2. Multioutlet Assemblies:
    - a. Hubbell Incorporated; Wiring Device-Kellems.
    - b. Wiremold Company (The).

## 2.02 RECEPTACLES

- A. Straight-Blade-Type Receptacles: Comply with NEMA WD 1, NEMA WD 6, DSCC W-C-596G, and UL 498.
- B. Straight-Blade and Locking Receptacles: General-Duty grade.
- C. Straight-Blade Receptacles: Hospital grade.
- D. GFCI Receptacles: Straight blade, non-feed-through type, Heavy-Duty grade, with integral NEMA WD 6, Configuration 5-20R duplex receptacle; complying with UL 498 and UL 943. Design units for installation in a 2-3/4-inch- deep outlet box without an adapter.

## 2.03 SWITCHES

- A. Single- and Double-Pole Switches: Comply with DSCC W-C-896F and UL 20.
- B. Snap Switches: General-Duty grade, quiet type.
- C. Combination Switch and Receptacle: Both devices in a single gang unit with plaster ears and removable tab connector that permit separate or common feed connection.
  - 1. Switch: 20 A, 120/277-V ac.
  - 2. Receptacle: NEMA WD 6, Configuration 5-15R.

## 2.04 WALL PLATES

- A. Single and combination types to match corresponding wiring devices.
  - 1. Plate-Securing Screws: Metal with head color to match plate finish.
  - 2. Material for Finished Spaces: Smooth, high-impact thermoplastic.
  - 3. Material for Unfinished Spaces: Galvanized steel.
  - 4. Material for Wet Locations: Cast aluminum with spring-loaded lift cover, and listed and labeled for use in "wet locations."

## 2.05 FINISHES

- A. Color:
  - 1. Wiring Devices Connected to Normal Power System: Ivory, unless otherwise indicated or required by NFPA 70.

## PART 3 - EXECUTION

### 3.01 INSTALLATION

- A. Install devices and assemblies level, plumb, and square with building lines.

- B. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical, and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.
- C. Remove wall plates and protect devices and assemblies during painting.
- D. Adjust locations of floor service outlets and service poles to suit arrangement of partitions and furnishings.

### 3.02 IDENTIFICATION

- A. Comply with Division 16 Section "Basic Electrical Materials and Methods."
  - 1. Receptacles: Identify panelboard and circuit number from which served. Use hot, stamped or engraved machine printing with white -filled lettering on face of plate, and durable wire markers or tags inside outlet boxes.

### 3.03 CONNECTIONS

- A. Ground equipment according to Division 16 Section "Grounding and Bonding."
- B. Connect wiring according to Division 16 Section "Conductors and Cables."

### 3.04 FIELD QUALITY CONTROL

- A. Perform the following field tests and inspections and prepare test reports:
  - 1. After installing wiring devices and after electrical circuitry has been energized, test for proper polarity, ground continuity, and compliance with requirements.
  - 2. Test GFCI operation with both local and remote fault simulations according to manufacturer's written instructions.
- B. Remove malfunctioning units, replace with new units, and retest as specified above.

END OF SECTION 262726



## SECTION 262816 - ENCLOSED SWITCHES AND CIRCUIT BREAKERS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Enclosed switches.
  - 2. Enclosed circuit breakers.
  - 3. Fuses.
- B. Related Sections:
  - 1. Electrical basic materials and methods: Elsewhere in Division 16.

#### 1.2 REFERENCES

- A. NEMA AB 1 -- Molded Case Circuit Breakers and Molded Case Switches.
- B. NEMA FU 1 -- Low Voltage Cartridge Fuses.
- C. NEMA KS 1 -- Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum).
- D. NEMA 250 -- Enclosures for Electrical Equipment (1000 Volts Maximum).
- E. NFPA 70 -- National Electrical Code; National Fire Protection Association; 2008.
- F. Standard of Installation; National Electrical Contractors Association (NECA).

#### 1.3 SUBMITTALS

- A. Product data, for all products specified in this section.

#### 1.4 QUALITY ASSURANCE

- A. Conform to NFPA 70.
- B. Furnish products listed by Underwriters Laboratories Inc., classified as suitable for installed use and environmental conditions.

#### 1.5 QUALIFICATIONS

- A. Manufacturer Qualifications: A company manufacturing products of this section which have performed in a satisfactory manner under comparable conditions for a period of 5 years.

#### 1.6 PROJECT CONDITIONS

- A. Review drawings to determine project conditions.
- B. Determine working clearance around and between construction elements such as beams, columns, walls, and ceilings.

- C. Determine access requirements around other work, including working clearances to mechanical equipment and controls.
- D. Determine spaces reserved for electrical equipment.
- E. Locations of distribution equipment indicated on drawings are approximate unless dimensioned. Determine exact location before roughing in supports.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
  - 1. Siemens Energy & Automation, Inc.
  - 2. Square D Company.

### 2.2 ENCLOSED SWITCHES

- A. Switch Assemblies: NEMA KS 1, heavy duty type.
- B. Fuse Clips (larger than 600 amperes): Class L.
- C. Fuse Clips: Match fuse specified for application.
- D. Wiring Terminations: Match conductor materials and sizes indicated on drawings.
- E. Enclosure: NEMA KS 1.
  - 1. Type 1 general purpose enclosure: Dry indoor locations unless indicated otherwise.

### 2.3 ENCLOSED CIRCUIT BREAKERS

- A. Molded Case Circuit Breakers: NEMA AB 1.
- B. Accessories:
  - 1. Undervoltage trip.
- C. Enclosure: NEMA AB 1.
  - 1. Type 1 general-purpose enclosure: Dry indoor locations unless indicated otherwise.

### 2.4 FUSES

- A. Provide products complying with requirements of the contract documents and made by a single manufacturer.
- B. Dimensions and Performance Characteristics: Conform to NEMA FU 1.
- C. Ratings: Current ratings as indicated; voltage ratings as required by circuit characteristics.
- D. Characteristics and Dimensions: Class RK1.

1. Application: Use where indicated on drawings.
- E. Spare Fuses: Furnish 2 of each rating and type.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine elements and surfaces intended to support products.
- B. Examine each product prior to installation to determine conformance to regulatory requirements and specification requirements.
- C. Correct any unsatisfactory conditions before installing products of this section.

### 3.2 PREPARATION

- A. Clean surfaces to receive work.
- B. Protect surrounding elements from work of this section.

### 3.3 INSTALLATION

- A. Install products in accordance with manufacturer's instructions.
- B. Install accessories specified in this section.
- C. Install fuses in each switch.
- D. Support products in accordance with NECA "Standard of Installation."
- E. Provide fasteners and anchors as specified in section covering basic materials and methods.
- F. Mounting Heights: Conform to NECA "Standard of Installation" except where height is specified or indicated on drawings.
- G. Coordinate installation of recessed cabinets with firestopping specified in Division 7. Patch around cabinet and install flush trim to cover wall opening.
- H. Provide grounding and bonding as specified in section covering basic materials and methods.
- I. Interface installation with other products to ensure adequate working clearance around equipment.

### 3.4 COMMISSIONING

- A. Inspect products specified in this section to observe physical damage, proper anchorage, and proper bonding connections to equipment grounding conductor.
- B. Verify proper size of overcurrent protection devices.

- C. Verify proper tightness of bolted connections.
- D. Inspect plastic insulators and cases for cracks and other defects.
- E. Verify that wiring connections conform to manufacturer's instructions.
- F. Place products into operation in accordance with manufacturer's instructions.

### 3.5 FIELD QUALITY CONTROL

- A. Perform tests and demonstrations required by the governing authority.

### 3.6 CLEANING

- A. Clean, using materials and methods recommended by product manufacturer.
- B. Remove dust and debris from inside of enclosures.
- C. Clean finishes to remove dust and dirt.
- D. Touch up scratches in unfinished surfaces to restore corrosion resistance.
- E. Touch up scratches in finished surfaces to restore finish.
- F. Clean electrical parts to remove dust, grease, and other materials that are harmful or conductive.

END OF SECTION 262816