

ADDENDUM NO.3

NEW HILLIARD MEMORIAL MIDDLE SCHOOL
HILLIARD, OH

HILLIARD CITY SCHOOLS
COLUMBUS, OH 43228

Project No. 216064.00

The date bid will be received has been changed from “February 9, 2017” to “February 14, 2017 at 2:00 p.m.”. Place remains the same.

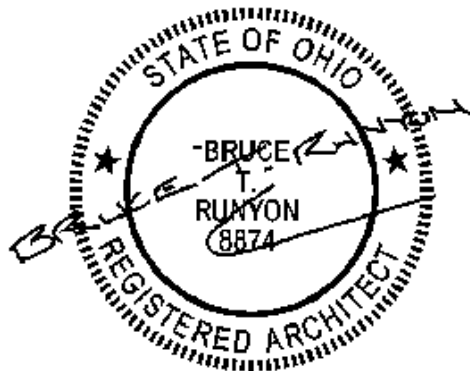
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Revised Drawing Sheet No. P2.09 – Unit D – Foundation Plumbing Plan
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Revised Drawing Sheet No. E6.04 – Unit D – First Floor Fire Alarm Plan
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February 2, 2017

I hereby certify that the Project Drawings and the Project Manual were prepared by me or under my direct supervision and that I am a duly registered Architect/Engineer under the Laws of the State of Ohio.

FANNING/HOWEY ASSOCIATES, INC.
ARCHITECTS/ENGINEERS



Bruce T. Runyon, License No. A-01-8874
Expiration Date: 12/31/2017

TO: ALL BIDDERS OF RECORD

ADDENDUM NO. 3 to Drawings and Project Manual, dated January 9, 2017, for New Hilliard Memorial Middle School, Hilliard City Schools, 2140 Atlas Street, Columbus, Ohio 43228; as prepared by Fanning/Howey Associates, Inc., Dublin, Ohio.

This Addendum shall hereby be and become a part of the Contract Documents the same as if originally bound thereto.

The following clarifications, amendments, additions, revisions, changes, and modifications change the original Contract Documents only in the amount and to the extent hereinafter specified in this Addendum.

Each bidder shall acknowledge receipt of this Addendum in his proposal or bid.

NOTE: Bidders are responsible for becoming familiar with every item of this Addendum. (This includes miscellaneous items at the very end of this Addendum.)

RE: ALL BIDDERS

ITEM NO. 1. ADDENDUM NO. 1

A. Item No. 3: Change A. to read as follows:

“Elford and the HVAC contractor shall jointly lead BIM coordination process using Autodesk Navisworks. Mechanical, Electrical, Plumbing, Fire Protection, Food Service, and Steel Contractors will prepare three dimensional assembly shop drawings utilizing software compatible with Autodesk Navisworks. HVAC Contractor shall be responsible for assembling a composite model, and running clash detection utilizing the design team base model and required trades assembly models. Elford and HVAC contractor shall jointly administer weekly BIM coordination meetings (either in person or web based) with all affected contractors (included as necessary: masonry, and general trades) to review clash detection reports issued by the HVAC contractor. Agreed upon adjustments will be made by the contractor that originated the affected model. All contractors (and Elford) shall review and sign off on the completed model.”

ITEM NO. 2. PROJECT MANUAL, SECTION 00 11 13 – ADVERTISEMENT FOR BIDS

A. **The date bid will be received has been changed from “February 9, 2017” to “February 14, 2017 at 2:00 p.m.”. Place remains the same.**

ITEM NO. 3. REVISED PROJECT MANUAL SECTIONS

A. Document 00 01 10 – Table of Contents and Section 01 10 00 – General Requirements have been revised, dated 2-2-17, are included with and hereby made a part of this Addendum.

ITEM NO. 4. NEW PROJECT MANUAL SECTION

A. New Project Manual Section 08 33 23 - Overhead Coiling Doors is included with and hereby made a part of this Addendum.

ITEM NO. 5. ACCEPTABLE MANUFACTURERS

The following manufacturers are to be considered acceptable manufacturers (suppliers and fabricators) for the Sections of the Specifications listed. Listed manufacturers are required to bid on products equal in type and design, size, function, and quality to that originally specified. Final decision as to equality of products specified versus those proposed shall be made by the Architect.

Section 08 14 16 – Flush Wood Doors

- Oregon Door

Section 12 35 53.16 – Plastic-Laminate-Clad Laboratory Casework

- Southern Cabinetry

Section 22 40 00 – Plumbing Fixtures

- Showers – Zurn
- Mop Basin – Zurn

ITEM NO. 6. REVISED DRAWING SHEETS

- A. Drawing Sheet Nos. A5.01, A5.06, A6.04, P2.09, P2.01, E1.01, E6.01, E6.02, E6.03, E6.04, E6.05, E6.06, E6.07, E6.08, E6.09, and E6.10 have been revised, dated 2/2/17, and are included with and hereby made a part of this Addendum. These Drawings supersede the original documents.

DOCUMENT 00 01 10 - TABLE OF CONTENTS

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00 01 10	Table of Contents

BIDDING REQUIREMENTS, CONTRACTOR FORMS AND CONDITIONS OF THE CONTRACT

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00 21 13	Instructions To Bidders (Owner)
00 26 00.00	Procurement Substitution Procedures
00 26 00.01	Substitution Request Form (During Procurement)
00 31 00	Available Project Information
00 31 25.01	Owner Supplied Equipment - Variable Air Volume Single Duct Terminal Units
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00 31 25.03	Owner Supplied Equipment - Water Cooled Helical Rotary Chillers (Duplex)
00 31 25.04	Owner Supplied Equipment - Evapco Cooling Tower
00 31 25.05	Owner Supplied Equipment - Lakos Separator
00 31 25.06	Owner Supplied Equipment – Performance Climate Changer
00 31 25.07	Owner Supplied Equipment - Split System Air Conditioning Units (Small)
00 31 25.08	Owner Supplied Equipment - BCXD Blower Coil – Direct Drive
00 31 25.09	Owner Supplied Equipment - Cabinet Unit Heaters
00 31 25.10	Owner Supplied Equipment - Electric Unit Heaters
00 31 25.11	Owner Supplied Equipment - Hydronic Unit Heaters
00 31 32	Geotechnical Data
00 31 44	Ohio EPA Storm Water Construction General Permit
00 31 45	Ohio EPA Notice of Termination (NOT)
00 41 26	Bid Form (Owner)
00 43 13	Bid Guaranty and Contract Bond (Section 153.571 O.R.C.) (Owner)
00 45 13	Contractor Qualifications Statement (Owner)
00 45 21	Personal Property Tax Affidavit (Owner)
00 45 22	Sales and Use Tax Construction Contract Exemption Certificate (Owner)
00 52 00	Agreement Forms – Modified STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR, Construction Manager as Advisor (AIA A132-2009) (Owner)
00 61 00	Bond Form - Contract Bond (Section 153.57 O.R.C.) (Owner)
00 65 19.14	Statement of Claim Form (Owner)
00 72 00	Modified AIA GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, Construction Manager as Advisor Edition (AIA A232-2009) (Owner)

SPECIFICATIONS

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01 10 00.01	Background Checks
01 10 00.02	Background Checks Letter
01 11 00	Multiple Contract Summary (CM)
01 12 00	Scope of Work Packages (CM)
01 12 00.01	Bid Package No. 1.0: Early Site and Utility Package – For Reference Only (CM)
01 12 00.02	Bid Package No. 3.0: Concrete (CM)
01 12 00.03	Bid Package No. 4.0: Masonry (CM)
01 12 00.04	Bid Package No. 5.0: Structural and Miscellaneous Steel (CM)
01 12 00.05	Bid Package No. 6.0: General Trades (CM)
01 12 00.06	Bid Package No. 7.0: Roofing – Owner Procuring – For Reference Only (CM)
01 12 00.07	Bid Package No. 8.0: Glass and Glazing (CM)
01 12 00.08	Bid Package No. 9.0: Flooring – Owner Procuring – For Reference Only (CM)
01 12 00.09	Bid Package No. 11.0: Food Service (CM)

01 12 00.10	Bid Package No. 12.0: Casework (CM):
01 12 00.11	Bid Package No. 13.0: Athletic Grandstands (CM)
01 12 00.12	Bid Package No. 14.0: Elevator (CM)
01 12 00.13	Bid Package No. 21.0: Fire Suppression (CM)
01 12 00.14	Bid Package No. 22.0: Plumbing (CM)
01 12 00.15	Bid Package No. 23.0: HVAC (CM)
01 12 00.16	Bid Package No. 26.0: Electrical and Technology (CM)
01 12 00.17	Bid Package No. 32.0: Asphalt (CM)
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01 21 00	Allowances
01 22 00	Unit Prices
01 25 00.00	Substitution Procedures
01 25 00.01	Substitution Request (After the Bidding Phase)
01 26 00.00	Contract Modification Procedures
01 26 00.53	Proposal Request
01 26 00.54	Proposal Worksheet Detail
01 29 00.00	Payment Procedures
01 29 00.01	Contractor's Payment Application Checklist
01 31 00.00	Project Management and Coordination
01 31 00.15	Request for Interpretation
01 32 00.00	Construction Progress Documentation (CM)
01 33 00.00	Submittal Procedures
01 33 00.03	Data Digital Licensing Agreement - AIA Document C106-2013
01 35 00	Site-Specific Safety Plan (CM)
01 40 00	Quality Requirements
01 42 00	References
01 50 00.00	Temporary Facilities and Controls (CM)
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01 60 00.00	Product Requirements
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01 78 23	Operation and Maintenance Data
01 78 39	Project Record Documents
01 79 00	Demonstration and Training

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03 06 30.02	Typical Slab Depression Legend
03 06 30.03	Concrete Mix Design Submittal
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05 21 00	Steel Joist Framing
05 31 00	Steel Decking
05 40 00	Cold-Formed Metal Framing
05 50 00	Metal Fabrications
05 51 00	Metal Stairs
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06 16 00	Sheathing
06 20 23	Interior Finish Carpentry
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07 21 00	Thermal Insulation
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07 27 23	Boardstock Air Barrier
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07 72 00	Roof Accessories
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08 11 16.16	Flush Aluminum Doors
08 13 16.00	Aluminum Doors
08 14 16	Flush Wood Doors
08 31 13	Access Doors and Frames
08 33 13	Coiling Counter Doors
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08 51 13	Aluminum Windows
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09 21 16.23	Gypsum Board Shaft Wall Assemblies
09 24 00	Cement Plastering
09 30 00	Tiling (For Information Only)
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22 05 23	General-Duty Valves for Plumbing Piping
22 05 29	Hangers and Supports for Plumbing Piping and Equipment
22 05 53	Identification for Plumbing Piping and Equipment
22 07 00	Plumbing Insulation
22 11 16	Domestic Water Piping
22 11 19	Domestic Water Piping Specialties
22 11 23	Domestic Water Pumps
22 13 16	Sanitary, Waste, and Vent Piping System
22 13 23	Sanitary Waste Interceptors
22 14 13	Facility Storm Drainage Piping
22 34 00	Fuel-Fired Domestic Water Heaters
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23 05 23	General-Duty Valves for HVAC Piping
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23 09 93	HVAC Sequence of Operation
23 11 23	Facility Natural-Gas Piping
23 21 13	Hydronic Piping
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23 23 00	Refrigerant Piping
23 25 00	HVAC Water Treatment
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23 31 13	Metal Ducts
23 33 00	Air Duct Accessories
23 34 23	HVAC Power Ventilators
23 36 00	Air Terminal Units
23 37 13	Diffusers, Registers, and Grilles
23 37 23	HVAC Gravity Ventilators
23 51 00	Breechings, Chimneys, and Stacks
23 52 16	Condensing Boilers
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26 05 53	Identification for Electrical Systems
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26 24 16	Panelboards
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26 27 13	Utility Electric Metering
26 27 26	Wiring Devices
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27 13 23TM	Manufacturers Material List
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32 31 13	Chain Link Fences and Gates
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33 05 00	Common Work Results for Utilities (trench drains)
33 05 10	Utilities Services
33 21 00	Well Drilling
33 21 06	Pumping Test for Irrigation
33 21 11	Irrigation Pumping System
33 46 00	Subdrainage

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SECTION 01 10 00 – GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Work covered by the Contract Documents.
 - 2. Phased construction.
 - 3. Work under other contracts.
 - 4. Purchase contracts.
 - 5. Owner-furnished products.
 - 6. Contractor-furnished, Owner-installed products.
 - 7. Use of premises.
 - 8. Owner's right to maintain school operations.
 - 9. Owner's occupancy requirements.
 - 10. Work restrictions.
 - 11. Specification formats and conventions.
 - 12. Permits, fees, and notices.
 - 13. Contractor construction sequence.
- B. Related Sections include the following:
 - 1. Division 01 Section "Multiple Contract Summary" for division of responsibilities for the Work.
 - 2. Division 01 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Type of Contract
 - 1. Project will be constructed under multiple contracts. See Division 01 Section "Multiple Contract Summary" for a description of work included under each separate contract.

1.4 WORK UNDER OTHER CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Coordinate the Work of this Contract with work performed under separate contracts.
- B. Preceding Work: Owner will award separate contract(s) for the following construction operations at Project site. Those operations are scheduled to be substantially complete before work under this Contract begins.
 - 1. A separate contract will be awarded to for early site and utility work.
- C. Concurrent Work: Owner will award separate contract(s) for the following construction operations at Project site. Those operations will be constructed simultaneously with work under this Contract.
 - 1. Roof Work: Roof work, in general shall be performed from metal roof deck up, by the Owner as part of a NATIONAL IPA Cooperative Contract and shall be as indicated and as specified in the following Division 07 Sections:
 - a. Standing Seam Metal Roof Panels
 - b. **Insulated Metal Wall Panels**

- c. **Metal Composite Panels**
- d. Built-Up Asphalt Roofing
- e. Sheet Metal Flashing and Trim
- 2. **Flooring Work, as indicated herein shall be performed by the Owner as part of a State Procurement Contracts and shall be as indicated and specified in the following Division 09 Sections and Division 12:**
 - a. **Tiling**
 - b. **Resilient Base and Accessories**
 - c. **Resilient Sheet Flooring**
 - d. **Resilient Tile Flooring**
 - e. **Tile Carpeting**
 - f. **Entrance Floor Mats and Frames.**
- 3. **Video Surveillance Cameras and Equipment related work, shall be performed by the Owner as part of a District wide system program.**
- 4. **Access Control and Intrusion Detection Systems related work, shall be performed by the Owner as part of a District wide system program.**
- 5. **Telephone paging systems related work, shall be performed by the Owner as part of a District wide system program.**
- 6. **Network Switching and Wireless Access related work, shall be performed by the Owner as part of a District wide system program.**

D. Future Work: Owner will award separate contract for the following additional work to be performed at site after Substantial Completion. Completion of that work will depend on successful completion of preparatory work under this Contract.

- 1. A separate contract will be awarded to for loose equipment and furniture, including site amenities.

E. The Owner intends to complete the following items of Work outside the provisions of these Contract Documents. The Contractor shall not restrict or interfere with the Owner's right to the Project to accomplish this Work.

- 1. Loose equipment and furniture except as scheduled and specified under Divisions 11 and 12 and shown on the Drawings.
- 2. **Monitors identified for the Classrooms, Extended Learning Spaces, Small Group and Reception area.**

1.5 PURCHASE CONTRACTS

A. General: Owner has negotiated purchase contracts with suppliers of material and equipment to be incorporated into the Work. Owner will assign these purchase contracts to Contractor. Include costs for purchasing, receiving, handling, storage if required, and installation of material and equipment in the Contract Sum, unless otherwise noted.

- 1. **Trane Mechanical Equipment as identified in the following sections**
 - a. **23 36 00 - air terminal units**
 - b. **23 52 16 – boilers**
 - c. **23 64 16 – water cooled chillers**
 - d. **23 65 00 – cooling towers**
 - e. **23 73 13 – modular indoor central station air handling units (not actuators)**
 - f. **23 81 26 – Split System Air Conditioners**
 - g. **23 82 39 – Unit Heaters (need the note in 2.1 and 2.2)**
- 2. **Toilet, Bath and Laundry Accessories**
- 3. **Interior and Exterior Scoreboards**

1.6 OWNER-FURNISHED PRODUCTS

A. Owner will furnish products indicated. The Work includes providing support systems to receive Owner's equipment and making plumbing, mechanical, and electrical connections.

- 1. Owner will arrange for and deliver Shop Drawings, Product Data, and Samples to Contractor.

2. Owner will arrange and pay for delivery of Owner-furnished items according to Contractor's Construction Schedule.
3. After delivery, Owner will inspect delivered items for damage. Contractor shall be present for and assist in Owner's inspection.
4. If Owner-furnished items are damaged, defective, or missing, Owner will arrange for replacement.
5. Owner will arrange for manufacturer's field services and for delivery of manufacturer's warranties to Contractor.
6. Owner will furnish Contractor the earliest possible delivery date for Owner-furnished products. Using Owner-furnished earliest possible delivery dates, Contractor shall designate delivery dates of Owner-furnished items in Contractor's Construction Schedule.
7. Contractor shall review Shop Drawings, Product Data, and Samples and return them to Construction Manager noting discrepancies or anticipated problems in use of product.
8. Contractor is responsible for receiving, unloading, and handling Owner-furnished items at Project site or properly store.
9. Contractor is responsible for all costs associated with storing, moving of equipment from storage location to job site, protection of equipment, and other additional costs.
10. Contractor is responsible for protecting Owner-furnished items from damage during storage and handling, including damage from exposure to the elements.
11. If Owner-furnished items are damaged as a result of Contractor's operations, Contractor shall repair or replace them.
12. Contractor shall install and otherwise incorporate Owner-furnished items into the Work.
13. Contractor responsible to install, start up, and maintain equipment per all specifications.
14. Startup of the following equipment provided by Trane is the responsibility of Trane with coordination and assistance from the mechanical and controls contractors: Chillers, Boilers, and Cooling Towers.
15. Startup assistance will be provided by Trane as needed on the VAV's, AHU's, Split Systems and Unit Heaters. This will also require assistance and coordination from the mechanical and controls contractor.
16. It is the mechanical contractor's requirement to contact Trane at least one week in advance of any startup requirements.

B. Owner-Furnished Products:

1. **Trane Mechanical Equipment**
2. **Toilet, Bath, and Laundry Accessories**
3. **Interior and Exterior Scoreboards**

1.7 USE OF PREMISES (ACCESS TO SITE)

- A. General: Each Contractor shall have full use of premises for construction operations, including use of Project site, during construction period. Each Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
- B. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

PART 2 - PRODUCTS

2.1 OWNER'S RIGHT TO MAINTAIN SCHOOL OPERATIONS

- A. During the course of this Project, normal and customary school functions and operations must be maintained. The Contract Documents are intended to define a strict separation between the school activities of students and staff from the activities of the construction project.
- B. The A/E CM, and Owner will not tolerate any visible or audible actions initiated or responded to by any employees of Contractors on this Project toward any students, teachers, or staff members at the school system. Violators shall be promptly removed from the Project site.

- C. The Owner intends to instruct students, teachers, and staff to refrain from communications with Contractor's personnel working on this Project. All communication with Owner and staff shall be through the CM.
 - 1. Despite the Owner's instructions to refrain from doing so, individual students, teachers, staff members, or other unauthorized parties might attempt to initiate changes to the work of this Project by communicating directly with Contractor's or subcontractor's personnel. Do not consider these communications to be instructions either to stop work in progress or to make changes to the work of this Project; instead, refer to Division 01 Section "Contract Modification Procedures" for administrative and procedural requirements for handling and processing modifications to the Contract.
- D. Contractors shall expend their best effort toward protection of the health, safety, and welfare of occupants on the Owner's property during the course of Work on this Project.
- E. Contractors and subcontractors shall be subject to such rules and regulations for the conduct of the Work as the Owner may establish. Employees shall be properly and completely clothed while working. Bare torsos, legs, and feet will not be allowed. Possession or consumption of alcoholic beverages or drugs, tobacco, or other noxious behavior on the Project site is strictly prohibited. Violators shall be promptly removed from the Project site. Smoking is not permitted on school property or within school buildings.

2.2 OWNER'S OCCUPANCY REQUIREMENTS

- A. Full Owner Occupancy: Owner will occupy the adjacent High School building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
 - 2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
- B. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed areas of building, before Substantial Completion, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and partial occupancy shall not constitute acceptance of the total Work.
 - 1. A/E will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied before Owner occupancy.
 - 2. Obtain a Certificate of Occupancy from authorities having jurisdiction before Owner occupancy.
 - 3. Before partial Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of building.
 - 4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of building.

2.3 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.
- B. Definitions
 - 1. Ambient Noise Level: The total noise associated with a given environment, being usually a composite of normal or existing sounds from all sources near and far, excluding the noise source at issue.

2. Daytime: The hours from 7 a.m. to 9 p.m. on weekdays and 9 a.m. to 9 p.m. on weekends and holidays.
 3. Nighttime: All non-daytime hours.
 4. Property Line: The real or imaginary line along the ground surface and its vertical extension, which separates real property owned or controlled by one person from contiguous real property owned or controlled by another person or from any public right-of-way or from any public space.
 5. Receiving Noise Area: Any real property where people live or work and where noise is heard, excluding the project or source area.
- C. On-Site Work Hours: Work shall be generally performed during normal business working hours of 7:30 a.m. to 4:30 p.m., Monday through Friday, except otherwise indicated.
1. Work outside normal business hours must comply with local zoning ordinances and approved by A/E, CM, and Owner at least 24 hours in advance.
 - a. No work including work outside normal business hours maybe performed without Contractor's Foreman/Superintendent present.
- D. Noise Control: Perform construction operations to minimize noise. Coordinate operations that may result in high levels of noise of other disruptions to Owner occupancy with Owner.
1. Notify CM and Owner not less than two days in advance of proposed disruptive operations.
- E. Repetitive and/or intermittent, high-level noise: Permitted only during daytime.
1. Do not exceed the following dB limitations:

<u>Sound Level in dB</u>	<u>Time Duration of Impact Noise</u>
70	More than 12 minutes in any hour
80	More than 3 minutes in any hour

2. Provide equipment, sound-deadening devices, and take noise abatement measures that are necessary for compliance.
3. Maximum permissible construction equipment noise levels at 50 feet (dB):

<u>EARTHMOVING</u>	<u>dB</u>	<u>MATERIALS HANDLING</u>	<u>dB</u>
Front Loaders	75	Concrete Mixers	75
Backhoes	75	Concrete Pumps	75
Dozers	75	Cranes	75
Tractors	75	Derricks Impact	75
Scrapers	80	Pile Drivers	95
Graders	75	Jack Hammers	75
Trucks	75	Rock Drills	80
Pavers, Stationary	80	Pneumatic Tools	80
Pumps	75	Saws	75
Generators	75	Vibrators	75
Compressors	75		

- F. Ambient Noise:
1. Maximum noise levels (dB) for receiving noise area at property line shall be as follows:
 - a. Residential receiving area

Daytime:	65 dB
Nighttime:	60 dB
 - b. Commercial/Industrial receiving area

Daytime:	67 dB
Nighttime:	65 dB
 2. In the event the existing local ambient noise level exceeds the maximum allowable receiving noise level (dB), the receiving noise level maximum for construction operations shall be adjusted as follows:
 - a. Residential receiving area: Maximum 3 additional dB above the local ambient as measured at property line.

- b. Commercial/Industrial receiving area: Maximum 5 additional dB above the local ambient as measured at the property line.
- G. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Construction Manager and Owner not less than 72 hours in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Construction Manager's and Owner written permission.
- H. Controlled Substances: Use of tobacco products and other controlled substances on the Project site is not permitted.
- I. Employee Identification: Owner will provide identification tags for Contractor personnel working on the Project site. Require personnel to utilize identification tags at all times.
- J. Employee Screening: Comply with Owner's requirements regarding drug and background screening of Contractor personnel working on the Project site.
 - 1. Maintain list of approved screened personnel with Owner's Representative.
 - 2. A background inquiry for the construction work force is a requirement of the construction contract. No one will be permitted to work on school construction projects adjacent to active school facilities without the completion of a satisfactory background inquiry.
 - a. Documentation shall be submitted, to screening agency, within 10 days of Notice to Proceed. Construction work at the Project site cannot start without properly screened personnel.
 - 3. Criminal Background Search
 - a. A criminal history search will begin with a comprehensive Social Security Number (SSN) verification to identify the use of multiple SSN and/or aliases (AKA's) as well as current and previous locations of residence. This information will be used for a criminal history search where applicant has worked and resided within the last three years. Searches will be 100 percent, realtime court searches in any U.S. county, Puerto Rico, the US Virgin Islands, Guam, and Canada. All felony convictions, misdemeanor convictions, and related activity on record will be reported to Owner.
 - b. Provide background checks against both state-level (BCI) and federal-level (FBI) fingerprint databases (available from National WebCheck at deputy registrar locations of the Ohio Bureau of Motor Vehicles).
 - 4. Project Site Compliance Monitoring:
 - a. After successful completion of the criminal history search, the screening firm shall provide the applicant with a form of identification to be displayed on the applicant's hard hat or employee identification tags. Identification shall be displayed at all times.
 - 1) Identification shall not directly identify the applicant's personal information.
 - b. Random checks will be performed to verify through brief random sampling that:
 - 1) There are no construction personnel working without a background check and proper identification.
 - 2) Contractor is maintaining a sign-in sheet for personnel visiting Project and providing a background-compliant full time escort.
 - 5. Tracking and Reporting: Deliver background inquiry reports to the Owner in hard copy and PDF format.
 - 6. Contractor shall include cost of initial screening and reporting in their bid.

2.4 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "MasterFormat" numbering system.

1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 2. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. 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. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. 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.

2.5 PERMITS, FEES, AND NOTICES

- A. Each Contractor shall secure and pay for permits, inspections, governmental fees, tap-in fees, and licenses necessary for the proper execution and completion of Work, which are applicable at the time the bids are received, unless otherwise noted.
1. A/E shall assist the Owner in applying for "Certificate of Plan Approval" (General Building Permit) typically required by law for projects similar to the one for which the A/E's services are engaged. Owner will pay associated fees.
 2. Owner will pay water service tap fee and sanitary sewer tap and capacity fees.
 3. Contractor shall pay for the following, but not limited to:
 - a. Fees to relocate utilities on Owner's property.
 4. General Trades Contractor shall complete Co-Permittee Notice of Intent (EPA Form 4496). See Division 00 Document "Ohio EPA Storm Water Construction General Permit."
- B. Utility Tie-Ins: Shall be arranged with local utility company and other involved parties for minimum interruption of service.
- C. Inspections of installed work shall be performed by the governing authority as arranged for by the Contractor. Work shall not be covered until approved.
- D. Each Contractor shall give notices and comply with laws, ordinances, rules, regulations, and orders of public authorities bearing on the performance of his Work. If a Contractor observes that the Contract Documents are at variances therewith, he shall promptly notify the Construction Manager in writing, and necessary changes shall be adjusted by appropriate notification. If a Contractor performs Work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without such notice to the Construction Manager, he shall assume full responsibility therefore and shall bear the costs attributable thereto.

2.6 MISCELLANEOUS PROVISIONS

- A. Each Contractor shall enforce strict discipline and good order among his employees or other persons carrying out Work of his Contract and shall not permit employment of unfit person or persons or anyone not skilled in the task assigned to them.

- B. Do not scale documents.
- C. Each Contractor shall be responsible for developing and conducting a security program, specifically oriented for the protection of – and for the preventing of damage, injury, or loss to – the Contractor’s respective portion of the Project site and other property at the site or adjacent thereto. This security program shall be acceptable to the Owner, and shall remain in effect through Substantial Completion of the Project.
- D. Hazardous Materials: The Contractor in addition to products banned as part of the Clean Air Act (NESHAP Rule, Nov. 1990 Revision; 40 CFR 60, Subpart M) shall not use or bring on-site materials containing more than 1 percent asbestos by polarized-light microscopy (PLM) analysis. No materials marked as “MAY CONTAIN MINERAL FIBERS” shall be used in construction unless written results of microscopic examination by an AIHA or NVLAP-certified laboratory documenting the asbestos content at less than 1 percent are provided and approved before installation.
 - 1. If material containing more than 1 percent asbestos is brought onto Project site by Contractor, materials shall be removed in accordance with all applicable laws and precautions so as not to make fibers friable. Removal of materials containing more than 1 percent asbestos and replacement of such materials shall be at Contractor’s expense.
 - 2. Before final payment, the Contractor shall submit to the Owner, on contracting firm’s letterhead, a signed, dated copy of the following statement:
 - a. I hereby certify to the best of my knowledge that no asbestos-containing material (ACM) above 1 percent content was used as a building material for this Project.
- E. Smoking Ban
 - 1. Smoking is prohibited in any “public place” or “place of employment” as of December 7, 2006. For definitions of a “public place” and “place of employment,” refer to ORC 3794.01 Definitions.
 - 2. All “public places” and “places of employment” must, by December 7, 2006, post conspicuous signs at each entrance. The signs shall be clearly legible and shall contain a toll-free number for reporting violations. Refer to ORC 3794.06 (A) Posting of Signs.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 10 00

SECTION 08 33 23 - OVERHEAD COILING DOORS

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. Insulated service doors.
- B. Related Sections:
 - 1. Division 05 Section "Metal Fabrications" for miscellaneous steel supports.

1.3 SUBMITTALS

- A. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.
 - 1. Include plans, elevations, sections, details, and attachments to other work. Drawings must show actual wall conditions.
 - 2. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
 - 4. For exterior components, include details of provisions for assembly expansion and contraction and for excluding and draining moisture to the exterior.
 - 5. Show locations of controls, detectors, replaceable fusible links and other accessories.
- B. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below.
 - 1. Curtain Slats: 12 inches long.
- C. Informational/Quality Assurance/Control Submittals:
 - 1. Product Data: For each type and size of overhead coiling door and accessory. Include the following:
 - a. Construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.
 - b. Manufacturer's installation instructions.
 - 2. Qualification Data: For qualified Installer.
- D. Closeout Submittals
 - 1. Maintenance Data: For overhead coiling doors to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for both installation and maintenance of units required for this Project.

PART 2 - PRODUCTS

2.1 MANUFACTURERS, GENERAL

- A. Manufacturer: Products subject to compliance with requirements, provide one of the following projects listed.

- B. Products of other manufacturers will be considered for acceptance provided they equal or exceed the material requirements and functional qualities of the specified product. Requests for Architect/Engineer's approval must be accompanied by the "Substitution Request Form" and complete technical data for evaluation. All materials for evaluation must be received by the Project Manager and Specification Department at least 10 days prior to bid due date. Additional approved manufacturers will be issued by Addendum.
- C. Source Limitations: Obtain overhead coiling doors from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance, Exterior Doors: Capable of withstanding the design wind loads.
 - 1. Wind Loads: Uniform pressure (velocity pressure) of 20 lbf/sq. ft., acting inward and outward, unless otherwise noted on Drawings.
 - 2. Deflection Limits: Design overhead coiling doors to withstand design wind load without evidencing permanent deformation or disengagement of door components.
- B. Operation Cycles: Provide overhead coiling door components and operators capable of operating for not less than number of cycles indicated for each door. One operation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position.
- C. Design Requirements:
 - 1. Air Infiltration: Comply with ASHREA Standard 90.1 requirements of less than 0.4 CFM/FT² or IECC requirements of less than 1.0 CFM/FT² in accordance with authorities with jurisdiction.
- D. Insulated Door Slat Material Requirements:
 - 1. Flame Spread Index of 0. And a Smoke Developed Index of 10 as tested per ASTM E84.
 - 2. Minimum R-value of 4.0 as calculated using the ASHRAE Handbook of Fundamentals.
 - 3. Insulation to be CFC Free with an Ozone Depletion Potential rating of zero.

2.3 DOOR ASSEMBLY

- A. Insulated Service Door
 - 1. Insulated Service Door, Manual, Interior Face Mounted
 - a. Steel
 - 1) ESD30; Cornell Iron Works
 - 2) 625 Series; Overhead Door Corp.
 - 3) 800-C Series, SDF1PS; Wayne-Dalton Corp.
 - 4) FCWI; Cookson Co.
 - 5) DuraCoil Select; Raynor Garage Door
 - 6) 6000 Series; C.H.I. Overhead Doors
- B. Insulated Service at Exterior Door: Overhead coiling door formed with curtain of interlocking metal slats.
- C. Operation Cycles: Not less than 20,000.
- D. Air Infiltration: Maximum rate of 0.4 cfm/sq.ft. at 15 and 25 mph when tested according to ASTM E 283 or DASMA 105.
- E. Curtain R-Value: 4.0 deg F x h x sq. ft./Btu calculated using the ASHRAE Handbook of Fundamentals.
- F. Door Curtain Material: Galvanized steel.
- G. Door Curtain Slats: Flat profile slats from 1-7/8-inch to 3-1/4-inch center-to-center height.
 - 1. Insulated-Slat Interior Facing: Metal.

- H. Endlock: Alternate slat each secured with two 1/4 inch rivets. Fabricate interlocking sections with high strength nylon or galvanized cast iron. Provide wind locks as required to meet specified wind load.
- I. Bottom Bar: Two angles, each not less than 1-1/2 by 1/8 inch; fabricated from hot-dip galvanized steel and finished to match door.
- J. Curtain Jamb Guides: Galvanized steel with exposed finish matching curtain slats.
- K. Hood: Match curtain material and finish.
 - 1. Shape: Round.
 - 2. Mounting: Face of wall.
- L. Locking Devices: Equip door with slide bolt for padlock.
- M. Manual Door Operator: Push-up operation.
- N. Curtain Accessories: Equip door with astragal, push/pull handles, and pull-down strap.
- O. Door Finish:
 - 1. Powder-Coated Finish: Match Dark Bronze, Valspar 437R994.

2.4 DOOR CURTAIN MATERIALS AND CONSTRUCTION

- A. Door Curtains: Fabricate overhead coiling-door curtain of interlocking metal slats, designed to withstand wind loading indicated, in a continuous length for width of door without splices. Unless otherwise indicated, provide slats of thickness and mechanical properties recommended by door manufacturer for performance, size, and type of door indicated, and as follows:
 - 1. Steel Door Curtain Slats: Zinc-coated (galvanized), cold-rolled structural steel sheet; complying with ASTM A 653, with G90 zinc coating; nominal sheet thickness (coated) as follows and as required to meet performance requirements.
 - a. 0.0239 inch (fka 24 gauge).
 - 2. Insulation: Fill slats for insulated doors with 7/8 inch foamed-in-place, closed cell urethane complying with maximum flame-spread and smoke-developed indexes of 0 and 10, respectively, according to ASTM E 84 or UL 723. Enclose insulation completely within slat faces.
 - a. R-value: 4.0
 - 3. Metal Interior Curtain-Slat Facing: Match metal of exterior curtain-slat face, with minimum steel thickness of 0.010 inch.
- B. Endlocks and Windlocks for Service Doors: Malleable-iron casings galvanized after fabrication, secured to curtain slats with galvanized rivets or high-strength nylon. Provide locks on not less than alternate curtain slats for curtain alignment and resistance against lateral movement. Provide windlocks as required to meet specified wind load.
- C. Bottom Bar for Service Doors: Consisting of two angles, each not less than 1-1/2 by 1-1/2 by 1/8 inch thick; fabricated from manufacturer's standard hot-dip galvanized steel, stainless steel, or aluminum extrusions to match curtain slats and finish.
 - 1. Insulated Bottom Bar: At insulated doors provide a reinforced extruded aluminum interior face with full depth insulation and exterior skin to match curtain material and gauge.
 - 2. Air Infiltration Certification Label: Affix to bottom bar.
- D. Curtain Jamb Guides: Manufacturer's standard angles as indicated of same material and finish as curtain slats unless otherwise indicated, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading. Slot bolt holes for guide adjustment. Provide removable stops on guides to prevent overtravel of curtain, and a continuous bar for holding windlocks.
 - 1. Provide thermal break at insulated doors.

2.5 HOOD

- A. General: Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head and a weather seal. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods. Equip hood with intermediate support brackets as required to prevent sagging.
 - 1. Galvanized Steel: Nominal 0.0239-inch- thick (fka 24 gauge), hot-dip galvanized steel sheet with G90 zinc coating, complying with ASTM A 653.

2.6 LOCKING DEVICES

- A. Padlockable Slide Bolt: Fabricate with side-locking bolts to engage through slots in tracks for locking by padlock, located on both left and right jamb sides, operable from coil side.

2.7 CURTAIN ACCESSORIES

- A. Weatherseals: Equip each exterior door with weather-stripping gaskets fitted to entire perimeter of door for a weathertight installation, unless otherwise indicated.
 - 1. At door head, use 1/8-inch thick, replaceable, continuous sheet secured to inside of hood or a neoprene/rayon baffle to impede air flow above coil.
 - 2. Lintel Seal: Provide a brush lintel seal to seal gap between lintel and outside face of coiling door.
 - 3. At door jambs, use replaceable, adjustable, continuous, flexible, 1/8-inch thick seals of flexible vinyl, rubber, or neoprene.
 - 4. Bottom Bar: Provide a replaceable, bulb-style, compressible EPDM gasket extending to guides.
- B. Astragal for Interior Doors: Equip each door bottom bar with a replaceable, adjustable, continuous, compressible gasket of flexible vinyl, rubber, or neoprene as a cushion bumper.
- C. Push/Pull Handles: Equip each push-up-operated door with lifting handles on each side of door, finished to match door.

2.8 COUNTERBALANCING MECHANISM

- A. General: Counterbalance doors by means of manufacturer's standard mechanism with an adjustable-tension, steel helical torsion spring mounted around a steel shaft and contained in a spring barrel connected to top of curtain with barrel rings. Use grease-sealed bearings or self-lubricating graphite bearings for rotating members.
- B. Counterbalance Barrel: Fabricate spring barrel of manufacturer's standard hot-formed, structural-quality, welded or seamless carbon-steel pipe, of sufficient diameter and wall thickness to support rolled-up curtain without distortion of slats and to limit barrel deflection to not more than 0.03 in./ft. of span under full load.
- C. Counterbalance Spring: One or more oil-tempered, heat-treated steel helical torsion springs. Size springs to counterbalance weight of curtain, with uniform adjustment accessible from outside barrel. Secure ends of springs to barrel and shaft with cast-steel barrel plugs.
 - 1. Fire-Rated Doors: Equip with auxiliary counterbalance spring and prevent tension release from main counterbalance spring when automatic closing device operates.
- D. Brackets: Manufacturer's standard mounting brackets of either cast iron or cold-rolled steel plate.

2.9 MANUAL DOOR OPERATORS

- A. Push-up Door Operation: Design counterbalance mechanism so required lift or pull for door operation does not exceed 25 lbf.

2.10 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.11 STEEL AND GALVANIZED-STEEL FINISHES

- A. Powder Finish: ASTM D3363, baked-on polyester powder coat. Comply with manufacturer's written instructions for cleaning, conversion coating, application, and baking.
 - 1. Color: Match Dark Bronze, Valspar 437R994.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates areas and conditions, with Installer present, for compliance with requirements for substrate construction and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install overhead coiling doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.
- B. Install overhead coiling doors, hoods, and operators at the mounting locations indicated for each door.
- C. Accessibility: Install overhead coiling doors, switches, and controls along accessible routes in compliance with regulatory requirements for accessibility.

3.3 ADJUSTING

- A. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.
 - 1. Adjust exterior door and components to be weather-resistant.
- B. Lubricate bearings and sliding parts as recommended by manufacturer.
- C. Adjust seals to provide weathertight fit around entire perimeter.

END OF SECTION 08 33 23