



A D D E N D U M

Project No.: 2301106

Project: WCSC Milford Elementary

Addendum No: 6

Date: 07-30-2024

TO: ALL BIDDERS OF RECORD

ADDENDUM NO. 6, to Drawings and Specifications dated 06-21-2024, for the new Milford Elementary School for the Wawasee Community School Corporation; as prepared by ELEVATUS Architecture, 111 E. Wayne Street, Suite 555, Fort Wayne, IN 46802

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 and set forth in this ADDENDUM.

Each Bidder shall acknowledge receipt of this ADDENDUM on the Bid Form.

ACCEPTABLE MANUFACTURERS:

- A. The following additional manufacturers are acceptable for use on this project. Listing herein does not authorize a blanket approval of the manufacturer listed, it only acknowledges that the manufacturer is capable of complying with the referenced technical specifications. Final approval and acceptance shall be solely by the Architect at his discretion.
1. Section 07 21 00 – Building Insulation
(Spray foam insulation for use under roof deck sump pans)
 - “GacoRoofFoam Low GWP F2780”

PROJECT MANUAL:

ITEM NO. 1.00 - PROJECT MANUAL

- A. See supporting Documentation from Michael Kinder & Sons for revisions to the Project Manual and answers to Bidding RFI's

ITEM NO. 1.01 - PROJECT MANUAL, 00 01 10 Table of Contents

- A. Refer to revised Section 00 01 10 attached to this Addendum No. 6

ITEM NO. 1.02 - PROJECT MANUAL, 07 21 00 Building Insulation

- A. Refer to revised Section 00 01 10 attached to this Addendum No. 6

ITEM NO. 1.03 - PROJECT MANUAL, 09 51 13 Acoustical Panel Ceilings

- A. Refer to revised Section 09 51 13 attached to this Addendum No. 6

ITEM NO. 1.04 - PROJECT MANUAL, 09 91 00 Painting

- A. Refer to revised Section 09 91 00 attached to this Addendum No. 6

DRAWINGS:

ITEM NO. 2.01 – A-141a Finishes Plan - Area A

- A. Removal of Finish Comments from Sheet
- B. Addition of dimensions for carpet in Collaboration 003

ITEM NO. 2.02 – A-141b Finishes Plan - Area B

- A. Removal of Finish Comments from Sheet

ITEM NO. 2.03 – A-212 Interior Elevations

- A. Addition of dimensions/annotations to drawings #5, 6, 7, 8, 9, 10, 11, & 12

ITEM NO. 2.04 – A-215 Interior Elevations

- B. Addition of dimensions/annotations to drawings #1, 2, 3, 4, 5, 6, 7, & 8

ITEM NO. 2.05 – A-601 Finish Schedule & Diagrams

- A. Addition of Finish Comments to sheet
- B. Revision to (08 14 16) WOOD DOORS on Finish Legend for coordination purposes
- C. Addition of information to finish legend to ABF-1. *Note: the indicated color was previously a standard color until it was discontinued. However, the design team verified with Armstrong that the color can still be manufactured*
 - a. **In Response to RFI PRECON-44**
- D. Addition of information to finish legend to AT-2
 - a. **In Response to RFI PRECON-44**
- E. Addition of Comment #3 to Finish Comments and its implementation on the Room Finish Legend in rooms 063, 064, 065, 067, 068, and 075
- F. Addition of Comment #4 to Finish Comments and its implementation on the Room Finish Legend in room 063

ITEM NO. 2.06 – MEP Addendum

- A. See supporting documentation

Submitted By:

Samuel R. Schaust, AIA

ELEVATUS
ARCHITECTURE

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cc: File: G:\002023\2301106 WCSC Milford Elementary School\0800 Bidding\0810 Addenda\Addendum #6\2024-07-30_WCSC Milford Elementary_Addendum #6_Write-up.docx
 Owner:
 Contractor:
 Consultant:
 Consultant:



Milford Elementary School - New Building

July 30, 2024

ADDENDUM NO. 6

This addendum is issued as a supplement to the plans and specifications and shall be considered an integral part of the same.

- Item: 6.01**
Location: Bid Package 03a Concrete
Description: Bid Package 03a Concrete is to include AVECS Pro-Act admixture in all concrete for slab on grade and slab on deck.

- Item: 6.02**
Location: Bid Package 06a General Trades
Description: Clarification: Bid Package 06a General Trades is to include temporary barricades in all window and door openings.

- Item: 6.03**
Location: Bid Package 06a General Trades
Description: Clarification: Revise Bid Package 06a General Trades, Supplemental Instructions to the Bid Package, Item 7 to read "This bid package is to include two laborers, 8 hours each, every Friday for general cleanup". See Addendum 2, MKS Narrative, Item 3.10 for duration.

- Item: 6.04**
Location: Bid Package 23a Mechanical
Description: This bid package is to include an allowance of \$75,000.00 in your base bid.

- Item: 6.05**
Location: Bid Package 26a Electrical
Description: This bid package is to include an allowance of \$75,000.00 in your base bid.

- Item: 6.06**
Location: Foundation Backfill and Underslab Stone
Description: Per the drawings, foundation backfill and underslab stone are to be crushed limestone.

- Item: 6.07**
Location: 01 23 00 Alternates
Description: Alternate 4 and Alternate 5 are added.

- Item: 6.08**
Location: 00 41 13
Description: Alternate 4 and Alternate 5 are added to the Alternate Bid Form

ALTERNATE BIDS

I agree to execute the Work for this Bid Package indicated for the lump sum amount given therein. (MUST CIRCLE ADD or DEDUCT). Base bid amount may be increased or decreased in accordance with such of the following alternate proposals as may be selected. If there is no bid submitted for the alternate, it will be assumed that the alternate has no effect on the bidder's scope of Work.

ALTERNATE BID #1: State the cost to delete the Performance & Payment Bond to Base Bid.
DEDUCT (\$ _____) _____

ALTERNATE BID #2: State the cost to delete temperature controls from your scope of work.
DEDUCT (\$ _____) _____

ALTERNATE BID #3: State the cost to provide building information technology.
ADD (\$ _____) _____

ALTERNATE BID #4: State the cost to provide foundation excavation and placing stone (See 01 12 30 for description).
ADD (\$ _____) _____

ALTERNATE BID #5: State the cost to remove 1,800 cubic yards of stockpiled spoils (See 01 12 30 for description).
ADD (\$ _____) _____

01 23 00 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on Bid Form for certain work defined in Bidding Requirements that may be added to or deducted from Base Bid amount if Owner decides to accept a corresponding change either in quantity of construction to be completed or in products, materials, equipment, systems, or installation methods described in Contract Documents.
 - 1. The cost or credit for each alternate is net addition to or deduction from Contract Sum to incorporate alternate into Work. No other adjustments are made to Contract Sum.
 - 2. Alternates described in this Section are part of Work only if enumerated in Agreement.

1.3 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of Contract, notify each entity involved, in writing, of status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under same conditions as other work of Contract.
- D. Schedule: A Schedule of Alternates is included at end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A. Alternate No. 1: State the costs to provide a payment and performance bond for this bid package.
- B. Alternate No. 2: State the costs to delete temperature controls from your scope of work.
- C. Alternate No. 3: State the costs to add building information technology (BIM) to bp 05A, BP 21a, BP 23a and BP 26a.
- D. Alternate No. 4: Bid Package 031a Earthwork – State the costs to add excavation of building foundations including screen wall foundations and place all stone including backfill for all concrete scope. Include removal of all spoils offsite and disposing.

- E. Alternate No. 5: Bid Package 031a Earthwork – State the costs to add removal of 1,800 cubic yards of stockpiled spoils from the project site and disposing.

END OF SECTION 01 23 00

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DIVISION 07: THERMAL AND MOISTURE PROTECTION

07 14 13	Pedestrian-Grade Waterproofing	
07 21 00	Building Insulation.....	rev Add 03 – 7/23/24 rev Add 06 – 7/30/24
07 22 00	Roof and Deck Insulation.....	rev Add 02 – 7/16/24
07 26 10	Underslab Vapor Retarder	
07 27 29	Air Barrier Coatings.....	rev Add 03 – 7/23/24
07 42 10	Cladding Support System	
07 42 13	Preformed Wall Panels	
07 42 93	Soffit Panels	
07 46 43	Composite Building Panels	
07 54 00	Fully Adhered PVC Sheet Roofing.....	rev Add 02 – 7/16/24 rev Add 03 – 7/23/24
07 62 00	Flashing and Sheet Metal	
07 92 00	Joint Sealants.....	rev Add 02 – 7/16/24

DIVISION 08: OPENINGS

08 11 00	Steel Doors and Frames	
08 14 16	Wood Doors	
08 31 13	Access Doors and Frames	
08 33 13	Coiling Counter Doors	
08 41 13	Aluminum Framed Entrances and Storefront.....	rev Add 02 – 7/16/24
08 51 13	Aluminum Windows.....	rev Add 02 – 7/16/24
08 71 00	Door Hardware	
08 71 13	Automatic Door Operators	
08 80 00	Glazing.....	rev Add 02 – 7/16/24
08 91 19	Fixed Louvers	

DIVISION 09: FINISHES

09 29 00	Gypsum Board.....	rev Add 02 – 7/16/24
09 30 13	Tiling.....	rev Add 02 – 7/16/24
09 50 00	Integrated Ceiling Assemblies	
09 51 13	Acoustical Panel Ceilings	
09 64 66	Wood Athletic Flooring.....	rev Add 02 – 7/16/24
09 65 19	Resilient Flooring	
09 67 23	Resinous Flooring.....	rev Add 02 – 7/16/24
09 72 00	Wall Coverings.....	added to TOC and rev by Add 02 – 7/16/24
09 68 13	Tile Carpeting	
09 80 00	Acoustical Wall Treatment	
09 91 00	Painting.....	rev Add 06 – 7/30/24

DIVISION 10: SPECIALTIES

10 11 00	Visual Display Units	
10 12 00	Display Cases	
10 14 00	Identifying Devices.....	added to TOC by Add 02 – 7/16/24
10 21 13.19	Solid Plastic Toilet Compartments	
10 21 23	Cubicle Curtains and Tracks	
10 26 00 43	Wall and Door Protection	
10 28 13	Toilet Accessories	

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10 41 16	Emergency Key Cabinets	
10 44 00	Fire Extinguishers, Cabinets, and Accessories	
10 51 00	Lockersdeleted by Add 03 – 7/23/24
10 51 13.13	Athletic Lockersdeleted by Add 03 – 7/23/24
10 75 00	Ground-Set Flagpoles	

DIVISIONS 11: EQUIPMENT

11 40 00	Food Service Equipment
11 66 23	Gymnasium Equipment
11 68 44	Scoreboards

DIVISIONS 12 – FURNISHINGS

12 24 13	Roller Window Shades	
12 32 16	Manufactured Plastic Laminate-Clad Caseworkrev Add 02 – 7/16/24
12 66 00	Telescoping Stands	

DIVISIONS 13 – 20: (NOT USED)

DIVISION 21 – FIRE SUPPRESSION

21 01 00	Fire Suppression Common Requirements
21 05 17	Sleeves And Sleeve Seals For Fire-suppression Piping
21 05 18	Escutcheons For Fire-suppression Piping
21 05 23	General-duty Valves For Water-based Fire-suppression Piping
21 05 53	Identification For Fire-suppression Piping And Equipment
21 13 13	Wet-pipe Sprinkler Systems

DIVISION 22: PLUMBING

22 01 00	Plumbing Common Requirements
22 05 13	Common Motor Requirements For Plumbing Equipment
22 05 16	Expansion Fittings And Loops For Plumbing Piping
22 05 17	Sleeves And Sleeve Seals For Plumbing Piping
22 05 18	Escutcheons For Plumbing Piping
22 05 19	Meters And Gauges For Plumbing Piping
22 05 23.12	Ball Valves For Plumbing Piping
22 05 23.13	Butterfly Valves For Plumbing Piping
22 05 23.14	Check Valves For Plumbing Piping
22 05 29	Hangers And Supports For Plumbing Piping And Equipment
22 05 48.13	Vibration Controls For Plumbing Piping And Equipment
22 05 53	Identification For Plumbing Piping And Equipment
22 05 93	Testing, Adjusting, And Balancing For Plumbing
22 07 19	Plumbing Piping Insulation
22 11 16	Domestic Water Piping
22 11 19	Domestic Water Piping Specialties
22 11 23.13	Domestic-Water Packaged Booster Pumps
22 11 23.21	Inline, Domestic-water Pumps
22 12 23.11	Facility Indoor Potable-water Storage Tanks
22 13 16	Sanitary Waste And Vent Piping

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22 13 19	Sanitary Waste Piping Specialties
22 13 19.13	Sanitary Drains
22 13 23	Sanitary Waste Interceptors
22 14 14	Storm Drainage Piping
22 14 23	Storm Drainage Piping Specialties
22 31 00	Domestic Water Softeners
22 34 00	Fuel-fired, Domestic-water Heaters
22 42 13.13	Commercial Water Closets
22 42 13.16	Commercial Urinals
22 42 16.13	Commercial Lavatories
22 42 16.16	Commercial Sinks
22 42 23	Commercial Showers
22 42 33	Wash Fountains
22 47 16	Pressure Water Coolers

DIVISION 23: HEATING, VENTILATING, AIR CONDITIONING

23 01 00	Mechanical Common Requirements
23 05 13	Common Motor Requirements for HVAC Equipment
23 05 16	Expansion Fittings And Loops For HVAC Piping
23 05 17	Sleeves And Sleeve Seals For HVAC Piping
23 05 18	Escutcheons For HVAC Piping
23 05 19	Meters And Gauges For Hvac Piping
23 05 23.12	Ball Valves For Hvac Piping
23 05 23.13	Butterfly Valves For Hvac Piping
23 05 23.14	Check Valves For Hvac Piping
23 05 29	Hangers And Supports For Hvac Piping And Equipment
23 05 48.13	Vibration Controls For Hvac
23 05 53	Identification For Hvac Piping And Equipment
23 05 93	Testing, Adjusting, And Balancing For Hvac
23 07 13	Duct Insulation
23 07 16	Hvac Equipment Insulation
23 07 19	Hvac Piping Insulation
23 09 00	Instrumentation And Control For Hvac
23 09 01	Variable-frequency Motor Controllers
23 09 93	Sequence Of Operations For Hvac Controls
23 11 23	Facility Natural-gas Piping
23 21 13	Hydronic Piping
23 21 16	Hydronic Piping Specialties
23 21 23	Hydronic Pumps
23 23 00	Refrigerant Piping
23 25 13	Water Treatment For Closed-loop Hydronic Systems
23 31 13	Metal Ducts
23 33 00	Air Duct Accessories
23 33 46	Flexible Ducts
23 34 16	Centrifugal Hvac Fans
23 34 23	Hvac Power Ventilators
23 34 33.13	Commercial Air Curtains
23 36 00	Air Terminal Units
23 37 13.13	Air Diffusers
23 37 13.23	Registers And Grilles
23 37 23	Hvac Gravity Ventilators
23 52 16	Condensing Boilers

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23 57 00	Heat Exchangers For Hvac
23 64 23.13	Air-cooled, Scroll Water Chillers
23 73 13.16	Indoor, Semi-custom Air-handling Units
23 73 43.16	Outdoor, Semi-custom Air-handling Units
23 81 26	Split-system Air-conditioners
23 82 19	Fan Coil Units
23 82 29	Radiators
23 82 39.13	Cabinet Unit Heaters

DIVISION 24 - 25: (NOT USED)

DIVISION 26: ELECTRICAL

26 00 10	Supplemental Requirements For Electrical
26 01 00	Electrical Common Requirements
26 05 19	Low-voltage Electrical Power Conductors And Cables
26 05 23	Control-voltage Electrical Power Cables
26 05 26	Grounding And Bonding For Electrical Systems
26 05 29	Hangers And Supports For Electrical Systems
26 05 33.13	Conduits For Electrical Systems
26 05 33.16	Boxes And Covers For Electrical Systems
26 05 33.23	Surface Raceways For Electrical Systems
26 05 36	Cable Trays for Electrical Systems
26 05 44	Sleeves And Sleeve Seals For Electrical Raceways And Cabling
26 05 48	Vibration and Seismic Controls for Electrical System.....added to TOC Add 03 – 7/23/24
26 05 53	Identification For Electrical Systems
26 05 73.13	Short-circuit Studies
26 05 73.16	Coordination Studies
26 05 73.19	Arc-flash Hazard Analysis
26 09 23	Lighting Control Devices
26 09 43.23	Relay-based Lighting Controls
26 22 13	Low-voltage Distribution Transformers
26 23 00	Low-voltage Switchgear
26 24 16	Panelboards
26 27 26	Wiring Devices
26 28 13	Fuses
26 28 16	Enclosed Switches And Circuit Breakers
26 29 13.03	Manual And Magnetic Motor Controllers
26 32 13.13	Diesel-engine-driven Generator Sets
26 36 00	Transfer Switches
26 43 13	Surge Protective Devices For Low-voltage Electrical Power Circuits
26 51 19	Led Interior Lighting
26 52 13	Emergency And Exit Lighting
26 56 13	Lighting Poles And Standards
26 56 19	LED Exterior Lightingadded to TOC Add 03 – 7/23/24

DIVISION 27: COMMUNICATIONS

27 01 00	Communications Common Requirements
27 05 26	Grounding and Bonding for Communications Systemsadded to TOC Add 03 – 7/23/24
27 05 28	Pathways For Communications Systems

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27 05 29	Hangers and Supports for Communications Systems	added to TOC Add 03 – 7/23/24
27 11 00	Communications Equipment Room Fittings	deleted from TOC Add 03 – 7/23/24
27 05 53	Identification for Communications Systems	added to TOC Add 03 – 7/23/24
27 11 16	Communications Racks, Frames, and Enclosures	added to TOC Add 03 – 7/23/24
27 15 13	Communications Copper Horizontal Cabling	
27 15 23	Communications Optical Fiber Horizontal Cabling	deleted from TOC Add 03 – 7/23/24
27 51 16	Public Address Systems	
27 51 23.50	Educational Intercommunications And Program Systems	

DIVISION 28: ELECTRONIC SAFETY AND SECURITY

283111	Addressable Fire Alarm Systems	deleted from TOC Add 03 – 7/23/24
28 46 21.11	Addressable Fire-Alarm Systems	added to TOC Add 03 – 7/23/24

DIVISIONS 29 – 30: (NOT USED)

DIVISION 31: EARTHWORK

31 00 00	Control of Site Work	
31 10 00	Site Demolition	
31 20 00	Site Earthwork	
31 30 00	Soil Erosion and Sediment Control	

DIVISION 32: EXTERIOR IMPROVEMENTS

32 12 16	Bituminous Concrete Pavement	
32 13 13	Portland Cement Concrete Pavement	
32 31 00	Fences and Gates	
32 92 00	Lawns and Grasses	
32 93 00	Site Landscaping	

DIVISION 33: UTILITIES

33 05 00	Site Utility Piping	
33 11 16	Site Water Distribution	
33 31 14	Sanitary Sewer System	
33 41 00	Storm Drainage System	

END OF TABLE OF CONTENTS

SECTION 07 21 00 - BUILDING INSULATION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following types of insulation:
 - 1. Miscellaneous stuffing insulation. (Mineral wool only)
 - 2. Un-faced batt insulation.
 - 3. Sound attenuation blankets.
 - 4. Rigid cavity wall and perimeter insulation.
 - 5. Spray-foam insulation (misc. locations as may be indicated. Spray-foam insulation is not acceptable for use as miscellaneous stuffing insulation or any other insulations as specified herein).
 - 6. Spray-foam insulation for use under metal deck roof sump pans.
- B. Rigid roof insulation and cover board specified in Section 07 22 00 for Roof and Deck Insulation.
- C. All insulation shall be formaldehyde-free.
- D. Contractor Option: Mineral wool insulation is acceptable for all insulations specified herein.

1.2 SUBMITTALS

- A. All building insulation items and accessories specified in this Section shall be submitted as a single package as practicable. Separate submittals for each system or product may not be acceptable.
- B. Do not submit MSDS or SDS sheets with the product data submittal. Architect is not responsible for review of this information. Submittals that include MSDS or SDS data sheets may be returned as rejected.
- C. Submit complete manufacturers installation instructions for each type of insulation as specified.
- D. Submit complete product data for each material proposed to be provided.
- E. Submit manufacturer's certificate certifying that insulation meets or exceeds specified requirements.

1.3 QUALITY ASSURANCE

- A. Insulation shall be legibly marked with the following data:
 - 1. Its "R" value per inch and the mean test temperature.
 - 2. The manufacturer's name.
 - 3. The insulation type and its trade name.
 - 4. Water vapor transmission (perm inch average).
 - 5. UL rating - flame spread, fuel contribution, smoke developed (ASTM E84 and D1692).
- B. The "R" values indicated are for the insulation tested at 75 degrees F mean temperature. It shall be for the total thickness of the insulation and shall exclude surface resistance. Manufacturers shall certify that their insulation complies with these requirements.

- C. Insulation delivered to the job without this identification or being less efficient than the insulation specified will be rejected.
- D. Fire-Test-Response Characteristics: Provide insulation and related materials with the fire-test-response characteristics indicated, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
 - 1. Surface-Burning Characteristics: ASTM E 84.
 - 2. Fire-Resistance Ratings: ASTM E 119.
 - 3. Combustion Characteristics: ASTM E 136.
- E. Toxicity/Hazardous Materials
 - 1. Formaldehyde: Products containing urea-formaldehyde will not be permitted.
 - 2. Chlorofluorocarbons (CFCs)/HCFCs: Products and equipment requiring or using CFCs or HCFCs during the manufacturing process will not be permitted

1.4 DELIVERY, STORAGE AND HANDLING

- A. Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.
- B. Protect plastic insulation as follows:
 - 1. Do not expose to sunlight, except to extent necessary for period of installation and concealment.
 - 2. Protect against ignition at all times. Do not deliver plastic insulating materials to Project site before installation time.
 - 3. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

PART 2 - PRODUCTS

2.1 MISCELLANEOUS STUFFING INSULATION (MINERAL WOOL ONLY)

- A. Shall be inorganic (non-asbestos) mineral wool insulation without facing, for the purpose of filling and stuffing openings in walls around pipes, structural components, conduits, expansion joints to eliminate noise transfer and to insulate. Use to seal top of interior walls, not fire rated walls, between masonry and roof deck, or as otherwise indicated. Use at expansion joints as detailed or as otherwise indicated. Insulation shall have a flame spread rating of 5 or less, and a smoke development rating of 0; per ASTM E84. Approved manufacturers are as follows:
 - 1. "Industrial Bulk Wool" packing wool fibers by Owens-Corning Thermafiber Corporation, Wabash, IN.
 - 2. Rock Wool Manufacturing Company, Leeds, Alabama.

2.2 UN-FACED BATT INSULATION

- A. Un-faced and kraft-faced preformed formaldehyde-free glass fiber unfaced batt insulation conforming to ASTM C665, Type I, and kraft-faced batt insulation conforming to ASTM C665, Type II, Class C, Category 1. Kraft-face shall be manufacturers standard. Insulation sized to the appropriate stud size. Approved manufacturers are as follows:
1. "Formaldehyde-Free Fiberglass Insulation" by JohnsManville, Denver, CO.
 2. "EcoBatt" by Knauf Insulation, Shelbyville, IN
 3. "EcoTouch Pink" by Owens Corning Insulating Systems, Toledo, OH
 4. "CertaPro" by CertainTeed, Saint-Gobain, Malvern, PA

2.3 SOUND ATTENUATION BLANKETS

- A. Sound attenuation blankets shall be formaldehyde-free unfaced glass fiber insulation conforming to ASTM C665, Type I. Blankets shall be held in place by clips as recommended by the manufacturer. Flame spread shall be 25, smoke developed 50 in accordance with ASTM E136 and ASTM C84. Insulation sized to the appropriate stud size. Approved manufacturers are as follows:
1. "Cavity-Shield Fiberglass" by JohnsManville, Denver, CO
 2. "EcoBatt" by Knauf Insulation, Shelbyville, IN
 3. "Pink Next Gen" by Owens Corning Insulating Systems, Toledo, OH

2.4 INSULATION FASTENERS (as may be required for insulation installation in metal stud walls)

- A. Products: Subject to compliance with requirements, provide one of the following:
1. Adhesively Attached, Spindle-Type Anchors:
 - a. AGM Industries, Inc.; Series T TACTOO Insul-Hangers.
 - b. Eckel Industries of Canada Limited; Stic-Klip Type N Fasteners.
 - c. Gemco; Spindle Type.
 2. Adhesively Attached, Angle-Shaped, Spindle-Type Anchor:
 - a. Gemco; 90-Degree Insulation Hangers.
 3. Insulation-Retaining Washers:
 - a. AGM Industries, Inc.; RC150.
 - b. AGM Industries, Inc.; SC150.
 - c. Gemco; Dome-Cap.
 - d. Gemco; R-150.
 - e. Gemco; S-150.
 4. Insulation Standoff:
 - a. Gemco; Clutch Clip.
 5. Anchor Adhesives:
 - a. AGM Industries, Inc.; TACTOO Adhesive.
 - b. Eckel Industries of Canada Limited; Stic-Klip Type S Adhesive.
 - c. Gemco; Tuff Bond Hanger Adhesive.
- B. Adhesively Attached, Spindle-Type Anchors: Plate welded to projecting spindle; capable of holding insulation of thickness indicated securely in position indicated with self-locking washer in place; and complying with the following requirements:

1. Plate: Perforated galvanized carbon-steel sheet, 0.030 inchthick by 2 inches square.
 2. Spindle: Copper-coated, low carbon steel, fully annealed, 0.105 inch in diameter, length to suit depth of insulation indicated.
- C. Insulation-Retaining Washers: Self-locking washers formed from 0.016-inch thick galvanized steel sheet, with beveled edge for increased stiffness, sized as required to hold insulation securely in place, but not less than 1-1/2 inchesquare or in diameter.
1. Protect ends with capped self-locking washers incorporating a spring steel insert to ensure permanent retention of cap in the following locations:
 - a. Crawlspace.
 - b. Ceiling plenums.
 - c. Attic spaces.
 - d. Where indicated.

2.5 CONTINUOUS RIGID CAVITY WALL AND RIGID PERIMETER INSULATIONS

- A. Extruded polystyrene rigid insulation shall conform to ASTM C578, latest edition, Type IV, minimum 25 psi compressive strength. Board edges shall be tongue and groove. Thickness shall be 2.50-inches, or as otherwise indicated. Refer to the Drawings and details. Minimum R value of 5.0 per inch @75°F mean temperature per ASTM C518. Approved manufacturers are as follows:
1. "Styrofoam Cavitymate" for cavity wall by DuPont de Nemours, Inc., Midland, MI
 2. "Foamular 250" by Owens-Corning Insulating Systems, Toledo, OH
 3. "GreenGuard GG25-LG XPS" by Kingspan, Atlanta, GA

2.6 SPRAY-FOAM INSULATION (MISCELLANEOUS LOCATIONS)

- A. Closed-cell spray-foam insulation "Proseal " by Huntsman Building Solutions, The Woodlands, TX; or "JM Corebond IV" by Johns-Manville; "Spraytite" by BASF; or "SealTite Pro" by Carlisle Spray Foam Insulation.
- B. Two component thermal insulation consisting of plastic resin and catalyst foaming agent surfactant with compressed air to product a cold-setting foam.

2.7 SPRAY-FOAM INSULATION (FOR USE ON THE BOTTOM SIDE OF ROOF DECK SUMP PANS)

- A. Closed-cell spray polyurethane foam (SPF), two-component. For use on the bottom side of roof deck sump pans.
- B. Acceptable Manufacturers
1. "JM Corebond 2.8" by Johns-Manville
 2. "NCFI Spray Foam System 10-011" by NCFI Polyurethanes, Mount Airy, NC
- C. Technical Properties:
- | | |
|---|------------------|
| 1. Core Density per ASTM 1622: | 2.8 pcf |
| 2. Compressive Strength per ASTM D1621: | 50 - 54 psi. |
| 3. Closed Cell Content per ASTM D6226; | greater than 90% |
| 4. Flame Spread Index per ASTM E84: | less than 20 |
| 5. Smoke Developed per ASTM E84: | 650 |
| 6. Class A rated @2" per ASTM E84. | |

- D. Total aged R-value of installed insulation shall be 22.8. Install a minimum of 4" thick.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prepare surfaces and areas to receive insulation material as required by the manufacturer. Do not install materials in unsatisfactory areas or to improperly prepared surfaces.

3.2 GENERAL INSTALLATION

- A. Coordinate application of insulation with the appropriate building trades involved.
- B. The installer doing the insulation work shall furnish adhesives or attaching means, if required, so that insulation material will be properly held in alignment and permanently attached to the surfaces which they are to be applied without damaging surface.
- C. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.
- D. Comply with insulation manufacturer's written instructions applicable to products and application indicated.
- E. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed at any time to ice and snow.
- F. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- G. Water-Piping Coordination: If water piping is located on inside of insulated exterior walls, coordinate location of piping to ensure that it is placed on warm side of insulation and insulation encapsulates piping.
- H. Apply single layer of insulation to produce thickness indicated, unless multiple layers are otherwise shown or required to make up total thickness.
- I. Provide all items and accessories as required for a complete installation in every respect.

3.3 MINERAL WOOL INSULATION

- A. Where the Drawings call for interior walls to extend to deck or roof, openings in walls between rooms above the ceiling shall be sealed with mineral wool placed or stuffed in openings to eliminate noise transfer and air movement. Mineral wool insulation shall be provided at other building locations indicated or requiring minor fill to eliminate air movement.

3.4 BATT INSULATIONS

- A. Install in areas as indicated. Install in strict accordance with the manufacturers written installation instructions. Install in all exterior wall voids, behind beams, and concealed locations in the exterior walls and roof areas of the building whether or not indicated. All gaps shall be filled with batt insulation.
- B. Install thermal insulation as follows:
 - 1. Erect insulation vertically and hold in place with Z-furring members spaced 24 inches o.c.

2. Except at exterior corners, securely attach narrow flanges of furring members to wall with concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches o.c.
 3. At exterior corners, attach wide flange of furring members to wall with short flange extending beyond corner; on adjacent wall surface, screw attach short flange of furring channel to web of attached channel. Start from this furring channel with standard width insulation panel and continue in regular manner. At interior corners, space second member no more than 12 inches from corner and cut insulation to fit.
 4. Until gypsum board is installed, hold insulation in place with 10-inch staples fabricated from 0.0625-inch (16-gage) diameter tie wire and inserted through slot in web of member.
- C. All voids in the perimeter of the building shell shall be filled and closed with miscellaneous mineral wool stuffing insulation, whether or not indicated or shown. This includes behind all steel beams, wide flange beams, channels, CMU, miscellaneous framing, etc.

3.5 CAVITY WALL INSULATION

- A. On units of rigid insulation, install small pads of adhesive spaced approximately 1'-0" o.c. both ways on inside face or attach to inside face with plastic fasteners designed for this purpose. Fit courses of insulation between wall ties and other confining obstructions in cavity, with edges butted tightly both ways. Press units firmly against inside wythe of masonry or other construction as shown.
1. Fill all cracks and open gaps at all perimeter edges in insulation with crack sealer compatible with insulation and masonry.

3.6 CLEAN UP

- A. Clean up all wrappings, scrap, and cut material waste at the end of each days' work. Refer to Division 1 for additional requirements.

3.7 GENERAL INSTALLATION PROVISIONS

- A. Manufacturer's Instructions: Comply with manufacturer's installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
- B. Inspect materials or equipment immediately upon delivery and again prior to installation. Reject damaged and defective items.
- C. Provide attachment and connection devices and methods necessary for securing Work. Secure Work true to line and level. Allow for expansion and building movement.
- D. Recheck measurements and dimensions, before starting each installation.
- E. Install each component during weather conditions and Project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material as necessary to prevent deterioration.

3.8 PROTECTION

- A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION

WCSC Milford Elementary School
Milford, Indiana

SECTION 09 51 13 - ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide labor, materials, and equipment necessary for complete installation of acoustical panel ceilings, baffles and related items indicated on Drawings and specified herein including the removal and renovation of existing systems as indicated.
- B. Review "Room Finish Schedule" and Mechanical and Electrical Drawings for type of material, layout, and pattern of acoustical units, location of recessed light fixtures, ceiling diffusers and grilles, details of suspension system, details at change of level, details at ceiling penetrations, details of fire rated acoustical treatment, access doors, special edge treatment, and necessary connections to work of other trades.

1.2 SUBMITTALS

- A. All acoustical panel ceiling products, baffles and accessories specified in this Section shall be submitted as a single package as practicable. Separate submittals for each system or product may not be acceptable.
- B. Do not submit MSDS or SDS sheets with product data submittal. Architect is not responsible for review of this information as practicable. Submittals that include MSDS or SDS data sheets may be returned as rejected.
 - 1. Refer to the Division 01 General Requirements as prepared by the Architect CMA CMC Design/Builder for MSDS and SDS submittal requirements.
- C. Product data for each type of product specified.
- D. Coordination drawings for reflected ceiling plans drawn accurately to scale and coordinating penetrations and ceiling-mounted items. Show the following:
 - 1. Ceiling suspension members.
 - 2. Method of attaching hangers to building structure.
 - 3. Size and location of initial access modules.
 - 4. Ceiling-mounted items including light fixtures; air outlets and inlets; speakers; sprinkler heads; and special moldings at walls, column penetrations, and other junctures with adjoining construction.
- E. Samples for verification purposes of each type of exposed finish required, prepared on samples of size indicated below and of same thickness and material indicated for final unit of Work. Where finishes involve normal color and texture variations, include sample sets showing full range of variations expected.
- F. Qualification data for firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include list of completed projects with project names, addresses, names of Architects and Owners, and other information specified.
- G. Research reports or evaluation reports of the model code organization acceptable to authorities having jurisdiction that show compliance of acoustical ceiling system and components with building code in effect for Project.

- H. Product test reports from qualified independent testing laboratory that are based on its testing of current products for compliance of acoustical ceiling systems and components with requirements.
- I. Submit pre-installation conference meeting minutes as specified herein.
- J. Submit warranties as specified herein.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who has successfully completed acoustical ceilings similar in material, design, and extent to that indicated for Project.
- B. Fire Performance Characteristics: Provide acoustical ceilings that are identical to those tested for the following fire performance characteristics, per ASTM test method indicated below, by UL or other testing and inspecting organizations acceptable to authorities having jurisdiction. Identify acoustical ceiling components with appropriate markings of applicable testing and inspecting organization.
 - 1. Surface Burning Characteristics: As follows, tested per ASTM E84 and complying with ASTM E 1264 for Class A products.
 - a. Flame Spread: 25 or less.
 - b. Smoke Developed: 50 or less.
 - 2. Fire-Resistance Ratings: As indicated by reference to design designations in UL Fire Resistance Directory, for types of assemblies where acoustical ceilings function as a fire ceiling assembly and tested per ASTM E119.
 - a. Protect lighting fixtures and air ducts to comply with requirements indicated for rated assembly.
- C. Single-Source Responsibility for Ceiling Units: Obtain each type of acoustical ceiling unit from a single source with resources to provide products of consistent quality in appearance and physical properties without delaying progress of the Work.
- D. Single-Source Responsibility for Suspension System: Obtain each type of suspension system from a single source with resources to provide products of consistent quality in appearance and physical properties without delaying progress of the Work.
- E. Coordination of Work: Coordinate layout and installation of acoustical ceiling units and suspension system components with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system components, and partition system.
 - 1. Confirm MEP/FP above-ceiling review with the Architect/Engineers has occurred and has been documented prior to installation of acoustical ceiling tile.
- F. Preinstallation Conference: Conduct conference at Project site to comply with requirements of Division 01.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical ceiling units to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical ceiling units, permit them to reach room temperature and a stabilized moisture content.

- C. Handle acoustical ceiling units carefully to avoid chipping edges or damaging units in any way.
- D. Packages required under this Section shall be properly marked on the outside with the identification of the materials contained in the package, so that they may be readily identified with the location to be used.

1.5 PROJECT CONDITIONS

- A. Space Enclosure: Do not install interior acoustical ceilings until space is enclosed and weatherproof, wet work in space is completed and nominally dry, work above ceilings is complete, and ambient conditions of temperature and humidity will be continuously maintained at values near those indicated for final occupancy.

1.6 EXTRA MATERIALS

- A. Maintenance Stock: Under this Section furnish to the Owner before final acceptance, extra maintenance stock of acoustical materials, consisting of a minimum of three (3) percent of area of each size, type, and thickness installed on the job. This extra stock is for the Owner's use after completion of the Project and is not to be used for repair or replacement required during the construction period or during the 60-day period following Substantial Completion. Properly package, seal, and identify extra stock material,
- B. Replacement Stock: In addition to the maintenance stock specified above, provide extra replacement stock of acoustical materials, consisting of a minimum of three (3) percent of area of each size, type and thickness installed on the job.
 - 1. Extra stock is for replacement of damaged materials during the 60-day period following Substantial Completion, when the party responsible for the damage cannot be ascertained by the Owner's agent.
 - 2. Replacement stock that is not used shall be furnished to the Owner as maintenance stock.

1.7 WARRANTY

- A. Acoustical Panel: Submit a written warranty executed by the manufacturer agreeing to repair or replace acoustical panels that fail within the warranty period. Failures include: sagging and warping, and rusting of the suspension system and components.
- B. Warranty Periods:
 - 1. Acoustical Panels: Ten (10) years from the Date of Substantial Completion.
 - 2. Grid: Ten (10) years from the Date of Substantial Completion.
 - 3. Acoustical panels and grid system provided by the same manufacturer shall be warranted for fifteen (15) years from the Date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Acoustical Panel Ceilings
 - 1. Armstrong World Industries, Lancaster, PA
 - 2. USG Interior Systems, Chicago, IL

- B. Acoustical Ceiling Baffles: Polyester Felt: "Feltworks Blades" by Armstrong World Industries, Lancaster, PA
1. Armstrong World Industries, Lancaster, PA
 2. USG Interior Systems, Chicago, IL

2.2 MATERIALS

- A. Acoustical Ceiling Tile: Provide manufacturer's standard tiles of configuration indicated and item numbers indicated, that comply with ASTM E1264 classifications as designated by type, form, pattern, acoustical rating, and light reflectance unless otherwise noted. Finish shall be factory applied, washable, white latex paint, unless noted otherwise.

1. **APC-1:**

- a. Armstrong "School Zone Fine Fissured 1810".
- b. USG "Radar Firecode High-NRC/High-CAC Acoustical Panels 22521".

~~2.~~

~~3. **APC-2:**~~

- ~~a. Armstrong "School Zone Fine Fissured 1811"~~
- ~~b-c. USG "Radar Firecode High-NRC/High-CAC Acoustical Panels 22541".~~

2. **APC-2:**

- a. Armstrong "Ceramaguard Fine Fissured 607".

4.2. **ABF-1:**

- a. Armstrong "Feltworks Blades - VarAffix 6370RCE0016"

- C. Standard for Acoustical Ceiling Units: Provide manufacturers' standard units of configuration indicated that comply with ASTM E1264 classifications as designated by reference to types, patterns, acoustical ratings, and light reflectance's, unless otherwise indicated.

- D. Colors and Patterns: Provide products to match appearance characteristics indicated under each product type.

1. For acoustical ceiling units whose appearance characteristics are indicated by reference to ASTM E 1264 designations for pattern and not by limiting to the naming of one or more products or manufacturers, provide Architect's selections from each named manufacturer's full range of standard products of type, color, pattern, and light reflectance indicated.

- E. Antimicrobial Treatment for ceilings: Manufacturer's standard broad spectrum, antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D3273, ASTM D3274, or ASTM G21 and evaluated according to ASTM D3274 or ASTM G21.

- F. Technical Properties/Performance

1. APC-1 and APC-2

- a. NRC: 0.70 and 0.55
- b. CAC: 40 and 38
- c. Fire Performance: Class A
- d. Light Reflectance: 0.82 and 0.79
- e. Size: APC-1 - 24-inches x 24-inches x 3/4-inch thick

2. APC-2 - 24-inches x 24.48-inches x 3/4-inch thick

3. ABF-1

- a. NRC: 0.75 @ 6-inches o.c.
- b. CAC: 35 with infill panel item no. 2821BK
30 with infill panel item no. 1319
- c. Fire Performance: Class A
- d. Light Reflectance: 0.79
- e. Size: 10-inches deep x 3/8-inch thick by lengths as required.

2.3 CEILING SUSPENSION SYSTEMS

- A. Acoustical ceiling suspension systems materials shall be products of the following manufacturers, and are the type, size, function, quality, and arrangement required.
- B. Other Acceptable Manufacturers: Products of the following manufacturers are acceptable providing they meet or exceed the requirements and specifications of the specified product:
 - 1. "Chicago Metallic 200 Snap-Grid 15/16" Exposed" by Rockfon North America, Chicago, IL
 - 2. "Prelude XL 15/16" Exposed Tee" by USG Interior Systems, Chicago, L
- C. Suspension systems shall meet or exceed the requirements of ASTM C635 for dimensional tolerances, coatings and finishes, and load carrying capabilities. Grid color shall match with no variance in color to the tile. Individual component deflection shall not exceed 1/360 of the span.
- D. Finishes and Colors: Provide hot-dipped galvanized finish (G-30 minimum) on all ceiling suspension components. Exposed surfaces of suspension system components shall receive a white baked-on enamel paint.
- E. Acoustical Lay-In Suspension System: Armstrong "Prelude XL System" snap grid exposed hot-dipped galvanized grid with 15/16" face; or equal by other listed manufacturers. This type of suspension system shall be used at all ceilings unless specified otherwise herein.
- F. Wall channel shall be hemmed edge type.
 - 1. Wall channel shall not be installed in lengths shorter than 48-inches in any wall run/installation.
- G. Rough Suspension Materials:
 - 1. Metal Channel Runners: 1 ½ inch, 475 pounds per thousand lineal feet and ¾ inch, 300 pounds, per thousand lineal feet, cold rolled painted channels.
 - 2. Hanger and Tie Wire: Not less than 12 gauge galvanized soft annealed steel.
 - 3. Wood Plank Suspension Systems: Provide the required wood plank clip system that attaches to the suspension system for a complete installation.
- H. Do not hang suspension system from metal floor or roof decks.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and structural framing to which ceiling system attaches or abuts, with Installer present, for compliance with requirements specified in this and other sections that affect installation and anchorage of ceiling system. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Coordination: Furnish layouts for preset inserts, clips, and other ceiling anchors whose installation is specified in other sections.
 - 1. Furnish concrete inserts and similar devices to other trades for installation well in advance of time needed for coordination of other work.
- B. Testing Substrates: Before installing adhesively applied tile on wet-placed substrates such as cast-in-place concrete or plaster, test and verify that moisture level is below tile manufacturer's recommended limits.
- C. Measure each ceiling area and establish layout of acoustical units to balance border widths at opposite edges of each ceiling. Avoid use of less-than-half-width units at borders, and comply with reflected ceiling plans.
- D. Refer to Room Finish Schedule and Legend for spaces to receive acoustical ceiling tile. Grid shall be laid out and coordinated for lighting fixtures and mechanical system items.
- E. Application of acoustical treatment shall be done by the manufacturer of his authorized applicator and in strict accordance with the manufacturer's specifications, except as herein modified.
- F. The installation of the ceiling shall be done before the installation of shelving, built-in counters, and finished floors; but after the other work in the room has been completed, including painting, unless otherwise approved by the Architect.

3.3 INSTALLATION

- A. Support ceiling suspension system from building structural steel and joists. Provide steel angles or uni-strut system between structural members and steel joists. Do not attach directly to metal roof deck.
- B. Install suspension wires 4 foot on centers, maximum, both directions. Secure suspension hangers to building structure above. For lighting fixtures install hanger wires to runners at all 4 corners of fixtures. Do not attach hanger wire to metal roof or floor decks, electrical, or mechanical equipment or related support systems.
 - 1. Suspension wires, straps, and chains shall not be attached to or through steel roof decks.
- C. Install metal channel by saddle tying hanger wire or with leveling clips to a leveling tolerance of 1/8 inch in 12 feet each way.
- D. Install grid suspension system in strict accordance with the manufacturer's recommendations.
- E. Install wall angle at intersection of suspended ceiling and vertical surfaces. Where plenum space occurs above ceiling, apply continuous ribbon of acoustical adhesive or caulking compound on top of vertical wall angle after installation.
 - 1. Wall channel shall not be installed in lengths shorter than 48-inches in any wall run/installation.
- F. Install acoustical units in a true and even plane, in straight line courses following lay out pattern shown in reflective ceiling plan. If no reflective ceiling plan is indicated, lay out symmetrically about center lines of ceiling or panel, continuing pattern through wall openings. Border tile shall not be less than 6 inches wide. Fit border units neatly against vertical surfaces.

- G. Recessed fixtures in fire rated ceiling assemblies shall be protected per UL requirements using "tent" type assemblies to comply with the fire ratings indicated in the Finish Schedule. Use hold-down clips and edge clips at border units.
- H. Seal joints in acoustical units around pipes, ducts, and electrical outlets with caulking compound.
- I. Just before final acceptance, remove and replace skinned, damaged, or dirty tiles with new material.
- J. Install edge moldings of type indicated at perimeter of acoustical ceiling area and at locations where necessary to conceal edges of acoustical units.
 - 1. Sealant Bed: Apply continuous ribbon of acoustical sealant, concealed on back of vertical leg before installing moldings.
 - 2. Screw-attach moldings to substrate at intervals not over 16 inches o.c. and not more than 3 inches from ends, leveling with ceiling suspension system to tolerance of 1/8 inch in 12 ft. - 0 inches. Miter corners accurately and connect securely.
 - 3. Wall channel shall not be installed in lengths shorter than 48-inches in any wall run/installation.
- K. Install acoustical tile in coordination with suspension system.

3.4 CLEANING

- A. Clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension members. Comply with manufacturer's instructions for cleaning and touch-up of minor finish damage. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

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SECTION 09 91 00 - PAINTING

PART 1 - GENERAL

1.1 SUMMARY/DESCRIPTION

- A. Provide labor, materials, and equipment necessary for complete painting, and finishing work as detailed on the Drawings and as specified herein of surfaces as scheduled throughout the building.
1. Paints specified in this Section are for interior finishes of the buildings. The term "paint" as used herein and elsewhere, includes enamels, paints, sealers, stains, fillers, emulsions, and other coatings, whether used as prime, intermediate, or finish coats.
 - ~~2. Refer to Section 09 96 11 High Performance Coatings for additional paint systems for the Food Preparation areas.~~
 2. All colors shall match those listed on the Finish Legend referenced by other manufacturers.
- B. The Architect shall not be limited in the number of colors selected for single space or for the complete Project.
- C. References
1. American National Standards Institute (ANSI) - Performance Standards
 2. Paint Decorating Contractors of America (PDCA) - Application Standard.
 3. National Paint and Coatings Association (NPCA) - Gloss Standard.
 4. American Society for Testing Materials (ASTM) - Testing Methods.
 5. Ozone Transmission Commission (OTC) - Established levels of Volatile Organic Compounds.
- D. Work Not Included in this Section
1. Shop or Factory Primed Surfaces: Shop priming of ferrous and galvanized metal items is included under the various Sections for structural steel, metal decking, miscellaneous metal items, hollow metal work, and similar items, and shop-fabricated or factory-built mechanical and electrical equipment and accessories.
 2. Pre-Finished Items: Field finish does not include painting when factory-finishing is specified for items such as acoustical materials, finished mechanical and electrical equipment, including light fixtures and distribution cabinets. Field touch-up is required, however, in all cases where the factory finish is damaged.
 3. Concealed Surfaces: Painting is not required on wall or ceiling surfaces in concealed areas and generally inaccessible areas, such as foundation spaces, furred areas, utility tunnels, pipe spaces, duct shafts, elevator shafts and behind the steel cells. Paint piping, equipment, and other such items within these areas as indicated.
 4. Nonferrous Metal Surfaces: Anodized aluminum, stainless steel, copper, and similar nonferrous metal materials will not require finish painting unless otherwise indicated or specified.
 5. Operating Parts and Labels:
 6. Moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sensing devices, motor and fan shafts, and expansion joints, will not require finish painting unless otherwise indicated.
 7. Do not paint over coderequired labels, such as UL, FM, and WH, or equipment identification, performance rating, name, or nomenclature plates.
 8. Do not paint automatic fire sprinkler heads.
 9. Miscellaneous Surfaces: Rubber and elastomeric sealants, cementitious fireproofing, and machined surfaces of metal hardware and related fittings will not require finish painting.

- E. The intent is to provide a finished building, exterior and interior, whether or not specifically indicated. All painting products and accessories specified in this Section shall be submitted as a single package as practicable. Separate submittals for each system or product may not be acceptable.
- F. Do not submit MSDS or SDS sheets with product data submittal. Architect is not responsible for review of this information as practicable. Submittals that include MSDS or SDS data sheets may be returned as rejected.
- G. Materials List: Prior to the start of Work and before paint materials are delivered to the job site, submit to the Architect a complete list of materials proposed and equivalent to specified painting schedule, to be provided under this portion of the Work.
 - 1. This shall in no way be construed as permitting substitution of materials for those specified or approved for this Work by the Architect.
- H. Color Chip Catalog: Paint manufacturer shall provide Architect with a complete current color chip catalog to select colors. (Large 8 x 10 samples may be requested for color selection). Manufacturers may fulfill this requirement by updating catalog that Architect may presently have in his possession. (Large drawdown samples will be required of each color after Architect selection).
- I. Manufacturer's Recommendations: In each case where material proposed is not the material specified or specifically described as an acceptable manufacturer in this Section of these Specifications, submit for the Architect's review the current recommended method of application published by the manufacturer of the proposed material.
- J. Product Data:
 - 1. Submit a complete list of all materials proposed for use, together with manufacturers' product specifications for such products.
 - 2. No claim by the Contractor concerning the unsuitability of any material specified, or the Contractor's inability to produce first class work with such materials, will be considered unless such claim is made in writing to the Architect before the work is started.
 - 3. Product data shall be clearly labeled indicating the coating system it applies to.
- K. Paint color selection draw-down samples shall be photographed in HD color and printed pictures shall also be submitted with the actual draw-down samples.
- L. Submit preinstallation conference meeting minutes.
- M. Submit commissioning submittals as specified in Article ~~4.9~~ 1.8 below.

1.2 QUALITY ASSURANCE

- A. Qualifications of Painters: Use only qualified journeyman painters for the mixing and application of paint on exposed surfaces; in the acceptance or rejection of installed painting, no allowance will be made for lack of skill on the part of painters.
- B. Codes and Standards: In addition to complying with pertinent codes and regulations, comply with "Standard (Type 1)" as defined by the Painting and Decorating Contractors of America in their "Modern Guide to Paint Specifications," current edition.
- C. Field Conditions: Apply coatings only when temperature of surfaces to be coated and ambient air temperatures are between 50 and 95 deg F.
- D. Do not apply coatings when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

1.3 PRODUCT HANDLING

- A. Delivery: Deliver paint materials to the job site in their original unopened containers with labels intact and legible at time of use.
- B. Protection
 - 1. Store only the approved materials at the job site and store only in a suitable and designated area restricted to the storage of paint materials and related equipment.
 - 2. Use means necessary to ensure the safe storage and use of paint materials and the prompt and safe disposal of waste.
 - 3. Use means necessary to protect paint materials before, during, and after application and to protect the installed work and materials of other trades.
- C. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F., warmer temperatures as manufacturer may require.

1.4 EXTRA STOCK

- A. Upon completion of this portion of the Work, deliver to the County an extra stock of paint consisting of five (5) gallons of each color used in each coating material used, with such extra stock tightly sealed in clearly labeled containers.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Painting manufacturers and Contractor shall conform to State and local V.O.C. (Volatile Organic Compound) Regulations in area where Project is located. Notify Architect in writing if variations to Specifications herein are required.

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside the manufacturer's absolute limits.

1.7 PREINSTALLATION CONFERENCE

- A. Conduct a preinstallation conference at least 14 days prior to starting painting work to review materials, installation procedures schedules and other requirements. Architect shall be present.

1.8 COMMISSIONING

- A. Closeout Submittals: Submit final copies of manufacturer's warranties for each specified product.
- B. Corrections: Architect, in concert with the Owner, shall be the sole judge of defective work and the level of acceptability. Depending upon the gloss and texture of a particular surface, it may be necessary for the entire surface (wall exposure, ceiling, rail, trim board, etc.) to be recoated to meet acceptability standards.
- C. Contractor's Statement of Compliance: Painting subcontractor shall provide certification that the specified materials have been installed in the required number of coats, and that they were applied to the minimum coating thicknesses in accordance with Contract Documents and manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 PAINTING MATERIALS MANUFACTURER

- A. Painting materials shall be the products of one of the following manufacturers, specified as the type, function, and quality of products to be provided. All painting products shall be by a single manufacturer.
- B. Products of the following manufacturers are acceptable, providing their products are equal in every respect, or exceed the quality specified.
 - 1. Sherwin Williams, Cleveland, OH
 - 2. PPG Paints, Louisville, KY
 - 3. Benjamin Moore, Montvale, NJ

2.2 COMPATIBILITY

- A. Paint materials selected for coating systems for each type of surface shall be the product of a single manufacturer.
- B. Paint materials and equipment shall be compatible in use; finish coats shall be compatible with prime coats; prime coats shall be compatible with the surface to be coated; tools and equipment shall be compatible with the coating to be applied.
- C. Thinners, when used, shall be only those thinners recommended for that purpose by the manufacturer of the material to be thinned.

2.3 ACCEPTANCE OF SPECIFICATIONS

- A. By submitting a bid, the painting contractor acknowledges that the types of paints and the number of coats, all as specified, are sufficient for the project. If the painting contractor or bidder has objections to or other suggestions, they shall be submitted in writing to the Architect at least 10 days prior to bid due date with all product data so additional paint types, etc. can be issued by addendum to all bidders, if approved by the Architect.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Applicator must examine areas and conditions under which painting work is to be applied and notify the Architect in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Applicator.
- B. Starting of painting work will be constructed as Applicator's acceptance of surfaces and conditions within any particular area.
- C. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable paint surface.
- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces is below the maximums as recommended, for the types of coatings to be used, by the manufacturer.

3.2 SURFACE PREPARATION

A. General

1. Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions, and as herein specified, for each particular substrate condition.
2. Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be finish painted or provide surface applied protection prior to surface preparation and painting operations; remove, if necessary, for complete painting of items and adjacent surfaces. Following completion of painting of each space or area, reinstall removed items.
3. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program cleaning and painting so that contaminates from cleaning process will not fall onto wet, newly painted surfaces.

B. Cementitious Materials

1. Prepare cementitious surfaces of concrete, concrete block, and cement plaster to be painted by removing efflorescence, chalk, dirt, grease, oils, and by roughening as required to remove glaze.
2. Determine alkalinity and moisture content of surfaces to be painted by performing appropriate tests. If surfaces are found to be sufficiently alkaline to cause blistering and burning of finish paint, correct this condition before application of paint. Do not paint over surfaces where moisture content exceeds that permitted in manufacturer's printed directions.
3. Clean concrete floor surfaces scheduled to be painted with a commercial solution of muriatic acid or other etching cleaner. Flush floor with clean water to neutralize acid and allow to dry before painting.

C. Ferrous Metals

1. Clean ferrous surfaces, which are not galvanized, or shop coated, of oil, grease, dirt, loose mill scale, and other foreign substances by solvent or mechanical cleaning.
2. Touch-up shop applied prime coats wherever damaged or bare, where required by other Sections or these Specifications. Clean and touch-up with same type shop primer.

D. Galvanized Surfaces

1. Clean free of oil and surface contaminates with non-petroleum-based solvent.

3.3 MATERIALS PREPARATION

A. Mix and prepare painting materials in accordance with manufacturer's direction.

B. Store materials not in actual use in tightly covered containers. Maintain containers used in storage, mixing, and application of paint in a clean condition, free of foreign materials and residue.

C. Stir materials before application to produce a mixture of uniform density and stir as required during application. Do not stir surface film into material. Remove film and, if necessary, strain material before using.

3.4 APPLICATION

A. General: Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.

1. Apply additional coats when undercoats, stains, or other conditions show through final coat of paint, until paint film is of uniform finish, color, and appearance. Give special attention to ensure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment or furniture with prime coat only before final installation of equipment.
 3. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint.
 4. Paint back sides of access panels and removable or hinged covers to match exposed surfaces.
 5. Finish exterior doors on tops, bottoms, and side edges same as exterior faces unless otherwise indicated.
 6. Sand lightly between each succeeding enamel or varnish coat.
 7. Omit first coat (primer) on metal surfaces which have been shop primed and touch-up painted, unless otherwise indicated.
- B. Scheduling Painting: Apply first coat material to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
1. Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure and application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.
 2. Slightly vary the color of succeeding coats.
- C. Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate and as specified herein, to establish a total dry film thickness as indicated or, if not indicated, as recommended by the coating manufacturer.
- D. Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to items exposed to view in interior occupied spaces and exterior walls and roof, or as otherwise may be noted.
- E. Prime Coats: Apply prime coat of material which is required to be painted or finished and which has not been prime coated by others. Primer may not be required on shop-primed items, coordinate with manufacturer and verify compatibility with shop primed items and second and third coats as specified.
1. Re-coat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn through or other defects due to insufficient sealing.
 2. Coordinate shop-primed surfaces and materials with primers as specified herein. Verify compatibility and submit verification letters to the Architect with the shop drawing submittals.
 3. If compatibility is not obtained or approved by the painting manufacturer or the primer manufacturer, then this painting contractor shall properly prepare substrate surfaces to receive primers as specified herein.
- F. Pigmented (Opaque), Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.
- G. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not in compliance with specified requirements.

3.5 FIELD QUALITY CONTROL

- A. The right is reserved by Owner/Architect to invoke the following material testing procedure when and as often as he deems necessary during the period of field painting.
 - 1. Engage services of an independent testing laboratory to sample paint being used. Samples of materials delivered to project site will be taken, identified, and sealed, and certified in presence of Contractor.
 - 2. Testing laboratory will perform appropriate test for one or each of the following characteristics: Abrasion resistance, apparent reflectivity, flexibility, washability, absorption, accelerated weathering, dry opacity, accelerated yellowness, re-coating, skinning, color retention, alkali resistance, and quantitative materials analysis.
 - a. If test results show that material being used does not comply with specified requirements, Contractor may be directed to stop painting work, and remove non-complying paint; pay for testing; repaint surface coated with rejected paint; remove rejected paint from previously painted surfaces if, upon repainting with specified paint, the 2 coatings are non-compatible.

3.6 CLEAN-UP AND PROTECTION

- A. Clean-Up: During progress of Work remove from site discarded paint materials, rubbish, cans, and rags at end of each workday.
- B. Upon completion of painting work clean window glass and other paint-spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.
- C. Protection: Protect work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct damage by cleaning, repairing, or replacing and repainting, as acceptable to Architect.
- D. Provide "Wet Paint" signs as required to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.
- E. At the completion of Work of other trades, touch-up and restore damaged or defaced painted surfaces.

3.7 PAINT TYPES AND NUMBER OF COATS

- A. The following painting schedules are intended to identify the type of finishes which are required for the various surfaces, and to identify the surfaces to which each finish is to be applied. Refer to Finish Schedule.
- B. To define requirements for quality, function, size, gages, textures, and color, the following list of materials designates the manufacturer's brand, types, and number of coats required; and other requirements that are to be furnished to conform to the requirements of this Project.
- C. Where specific finishes are called for on the Drawings and in the Finish Schedule by code designation, it shall specifically refer to the following identified types of coatings.
- D. The primer indicated under Material Identification is intended for the particular substrate surface specified. Where the same numbered finish is scheduled, but for another substrate, provide the proper primer compatible with substrate and the finish.

- E. Where the substrate has a compatible and satisfactory prime coat already on it, the prime coat specified for the numbered finish may be omitted. Test prime coat for compatibility before applying additional coats. Obtain paint manufacturers written approval
- F. Abbreviation Definitions:
 - 1. SW = Sherwin Williams
 - 2. PPG = PPG Industries
 - 3. BM = Benjamin Moore

3.8 EXTERIOR PAINTING SCHEDULE

- A. Provide the following exterior **paint systems** for substrates indicated:
- B. **Ferrous Metal:** Provide the following finish systems over exterior ferrous metal. Primer may not be required on shop-primed items; coordinate with the manufacturer and verify compatibility with shop primed items and second and third coats as specified below. If compatibility is not ascertained during the bidding period, Contractor shall provide primer and preparation as specified herein.
 - 1. High-Build Acrylic Polyurethane:
 - a. **Primer:** Metal primer applied at spreading rate (minimum) as recommended by the manufacturer.
 - 1) SW: Corothane | Mio-Zinc
 - 2) PPG: PMCAmercoat 68HS
 - b. **Second Coat:** Epoxy intermediate coat applied at spreading rate recommended by the manufacturer.
 - 1) SW: Macropoxy 646 FC
 - 2) PPG: PMC Amerlock 600
 - c. **Third Coat:** **Semi-gloss**, acrylic polyurethane enamel applied at spreading rate recommended by the manufacturer.
 - 1) SW: Acrolon 218 HS B65 Series or Hi-Solids Polyurethane
 - 2) PPG: Pitthane HB S/G 95-8800
 - d. **Surfces:** Steel doors and frames, steel door jamb channels, steel lintels and all other miscellaneous steel items exposed to view on the exterior of the building. Primer may not be required on shop primed items if compatibility is confirmed in writing with the manufacturer with the type of shop primer being applied. Contractor shall verify this during the bidding period, and if primer is not compatible, then primer shall either be field applied, or shop applied with type as recommended by the manufacturer. Type of primer and surface preparation shall be as recommended by the painting materials manufacturer.
 - 2. This painting system shall be applied by spray application only. Contractor shall provide all necessary masking and protection of adjacent surfaces to accomplish this spray application procedure.

3.9 INTERIOR PAINTING SCHEDULE

- A. Provide the following **interior paint systems** for substrates indicated ~~(at areas not accessible to Offenders):~~

- B. **Gypsum Board:** Provide the following finish systems over interior gypsum board surfaces at all gypsum board walls and ceilings:

1. **Acrylic Latex Finish:**

- a. **Primer:** Latex-based, interior primer applied at spreading rate recommended by the manufacturer.

- 1) SW: Premium Wall & Wood Interior Latex Primer
- 2) PPG: Seal Grip High Hide Primer
- 3) BM: Eco Spec Interior Latex Primer

- b. **First and Second Coats:** ~~Semi-Gloss Eggshell~~ ~~Satin~~, interior latex applied at spreading rate recommended by the manufacturer.

- 1) SW: ProMar 200 Zero VOC Interior Latex - Eg-Shel
- 2) PPG: Speed Hide Zero Semi Gloss
- 3) BM: Eco Spec Interior Latex

- c. Surfaces: Gypsum board walls, bulkheads, ceilings, in administration areas and offices and other areas ~~not accessible to Offenders.~~ ~~All ceilings shall be flat finish.~~

2. **Acrylic Epoxy Finish:**

- a. **Primer:** Vinyl acrylic sealer.

- 1) SW: ProMar 200 Zero VOC Primer
- 2) PPG: Speedhide Primer/Sealer 6-2
- 3) BM: as recommended by Benjamin Moore

- b. **Second and Third Coats:** ~~Semi-Gloss Eggshell~~ ~~or Satin~~ finish (as selected by Architect), high - performance, acrylic epoxy, water based coating.

- 1) SW: Pro Industrial Pre-Catalyzed WB Epoxy K45
- 2) PPG: Pitt-Glaze One 16-310
- 3) BM: Corotech "Fast Dry Polyamide Epoxy V410

- c. Spreading Rate: as recommended by the manufacturer.

- d. Surfaces: Gypsum board walls and ceilings in restrooms, janitor's closets. ~~and elsewhere as noted not accessible to Offenders.~~ All ceilings shall be flat finish.

- C. **Concrete Masonry Units:** Provide the following finish systems over interior concrete masonry block units:

1. **Alkyd Enamel Finish:**

- a. **Block Filler:** High-performance, latex-based, block filler applied at spreading rate recommended by the manufacturer.

- 1) SW: PrepRite Block Filler B25W25
- 2) PPG: Speedhide Masonry Latex Block Filler
- 3) BM: Super Kote 5000 Block Filler

Note: Prepare CMU surfaces as recommended by the manufacturer prior to applying block filler..

- b. **First and Second Coats:** ~~Gloss Semi-Gloss Eggshell~~ ~~Satin~~ ~~acrylic latex~~ alkyd, interior enamel applied at spreading rate recommended by the manufacturer with a total dry film thickness of not less than 3.5 mils.

- 1) SW: ~~ProMar 200 Alkyd Enamel~~ ProClassic Waterbased Acrylic-Alkyd
- 2) PPG: Glyptex 439-00 Interior Alkyd Enamel
- 3) BM: Corotech Alkyd Urethane Enamel

c. Surfaces: New CMU

D. **Concrete Masonry Units (Food prep, Kitchen and dishwashing)**: Provide the following finish systems over interior concrete masonry block units in the Food Preparation and Dishwashing areas. Refer to the Room Finish Schedule.:

1. Waterborne Acrylic Epoxy Coating:

a. **Filler Coat**: Waterborne cementitious acrylic concrete masonry block filler.

- 1) SW: Cement-Plex 875
- 2) TNEC: Envirofill Series 130

a) Cementitious filler coat shall be back rolled and squeegeed. Prior to application of second and third coats, verify that all CMU surfaces are **PINHOLE FREE**.

b. **Second and Third Coats**: ~~Satin Eggshell~~ finish, high - performance, acrylic epoxy, water-based coating.

- 1) SW: Pro Industrial Water Based Catalyzed Epoxy B73-300 Series
- 2) TNEC: H.B. Tneme-Tufcoat Series 113
- 3) PPG: Amerlock 2

c. Spreading Rate: 6.0 DFT mils per coat, min.

2. Surfaces: Exposed CMU walls in the Food Preparation areas, Kitchen and the Dishwashing and tray return areas.

E. **Ferrous Metal**: Provide the following finish systems over interior exposed ferrous metal. Primer may not be required on shop-primed items if coordinated with paint manufacturer to verify compatibility with shop primed items, and second and third coats as specified below. If compatibility is not ascertained during the bidding period, Contractor shall provide primer and preparation as specified herein.

1. **Vinyl Acrylic Latex Finish**:

a. **Primer**: Metal primer applied at spreading rate (minimum) as recommended by the manufacturer.

- 1) SW: Pro Industrial Pro-Cryl Universal Acrylic Primer
- 2) PPG: Pitt Tech Plus DTM Primer - 4020-1000
- 3) BM: Ultra Spec HP Acrylic Metal Primer HP04

b. **Second Coat**: Latex intermediate coat applied at spreading rate recommended by the manufacturer.

- 1) SW: ProMar 200 Zero VOC Interior Latex
- 2) PPG: Speed Hide Zero Semi Gloss - 6-4510XI.
- 3) BM: Coronado Super Kote 3000 Acrylic Latex

c. **Third Coat**: ~~Gloss Semi-gloss Eggshell Satin~~, acrylic polyurethane enamel applied at spreading rate recommended by the manufacturer.

- 1) SW: ProMar 200 Zero VOC Interior Latex
- 2) PPG: Speed Hide Zero Semi Gloss - 6-4510XI.
- 3) BM: Coronado Super Kote 3000 Acrylic Latex

- d. Surfaces: Steel doors and steel frames and all other miscellaneous exposed steel items as may be required and exposed to view, whether or not shown on the Drawings.
- e. This painting system shall be applied by spray application only. Contractor shall provide all necessary masking and protection of adjacent surfaces to accomplish this spray application procedure.

F. **Exposed Structure**: Provide the following finish system over interior ferrous metal and precast concrete where scheduled at exposed structure.

1. Waterborne Acrylic Dryfall

- a. **First and Second Coats: Flat**, waterborne acrylic dryfall applied at spreading rate as recommended by the manufacturer:

- 1) SW: Pro Industrial Waterborne Acrylic Dryfall
- 2) PPG: Speedhide 6-724
- 3) BM: Latex Dryfall

2. Surfaces::Exposed structure where scheduled to be painted.

END OF SECTION

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FINISH FLOORING LEGEND

TYPE	DESCRIPTION
CPT-1	24" X 24" CARPET TILE
CPT-2	24" X 24" CARPET TILE
CPT-3	24" X 24" CARPET TILE
CPT-4	18" X 36" WALK-OFF CARPET TILE
LVT-1	12" X 24" LUXURY VINYL TILE
LVT-2	36" X 36" LUXURY VINYL TILE
LVT-3	36" X 36" LUXURY VINYL TILE
EPX-1	RESINOUS QUARTZ POUR SYSTEM
EPX-2	RESINOUS QUARTZ HEAT PUOR SYSTEM
SC-1	SEALED CONCRETE
T-1	6" X 12" PORCELAIN TILE
T-2	TERRAZZO FLOORING
WSF-1	SPORTS WOOD PLANK (COLOR MAY VARY TO IDENTIFY PAINTED AND/OR STAINED LOCATIONS)

- ### FINISH GENERAL NOTES
- SCHEDULED MATERIALS AND FINISHES SHALL NOT BE ORDERED OR INSTALLED BEFORE THE CONTRACTOR'S PHYSICAL SAMPLE SUBMITTALS HAVE BEEN APPROVED AS CALLED FOR IN THE SPECIFICATIONS.
 - FLOORING CONTRACTOR TO PROVIDE APPROPRIATE VINYL OR METAL TRANSITIONS AND REDUCERS BETWEEN VARYING FLOORING MATERIALS.
 - FLOOR FINISH TRANSITIONS SHALL BE CENTERED BELOW DOORS IN THE CLOSED POSITION, UNLESS NOTED OTHERWISE.
 - CONCRETE SLAB TO REMAIN PROTECTED AND COVERED. REFER TO SPECIFICATIONS.
 - HOLLOW METAL FRAMES TO BE PAINTED P-3, UNLESS NOTED OTHERWISE.
 - CASEWORK TO BE PL-1, UNLESS NOTED OTHERWISE.
 - COUNTERTOPS TO BE SS-1, UNLESS NOTED OTHERWISE.
 - FINISH EXPOSED TILE EDGE WITH SCHLUTER TRIM. FINISH TO BE COORDINATED WITH DESIGNER.
 - INSIDE OF SHOWER WALLS, FLOORS AND CEILINGS TO BE A SPECIALTY COATING SYSTEM. SEE SPECIFICATIONS FOR MORE INFORMATION.
 - SEE FINISH PLANS FOR CORNER GUARD CALLOUTS.
 - REFER TO FINISH FLOOR PLAN FOR FLOOR TRANSITIONS.
 - REFER TO FINISH FLOOR PLAN FOR PAINT LOCATION CALLOUTS NOT SPECIFIED IN SCHEDULE.

FINISH PLAN NOTES

TAG	DESCRIPTION
1	4 COLOR PAINTED CENTER COURT WCSS LOGO. APPROX. 99" DIAMETER IN SIZE. COLORS TO BE COORDINATED WITH DESIGNER.
2	2" W BASKETBALL COURT PAINTED LINES. PAINT COLOR TO MATCH P-1. COORDINATE WITH DESIGNER PRIOR TO LAYOUT.
3	BASELINE AND SIDELINE TO BE STAINED. COLOR TO MATCH
4	CORNER GUARD (CG-1) TO BE APPLIED.
5	1" W VOLLEYBALL PAINTED LINES. PAINT COLOR TO MATCH P-1. COORDINATE WITH DESIGNER PRIOR TO LAYOUT.
6	ALIGN FLOORING MATERIAL TO ADJACENT WALL.
7	COMPARTMENTS TO BE (TP-1)



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PLAN | DESIGN | BUILD

Wawasee Community School Corp.
Milford Elementary School
611 W Emeline St. Milford, IN 46542



REVISIONS		
NO.	DESCRIPTION	DATE
1	Addendum #6	7-30-2024

PROJECT NO.
2301106

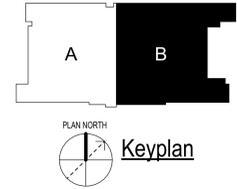
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06-21-2024

SUBMITTAL
Issue for Bids, Permits, and Construction

Finishes Plan - Area B

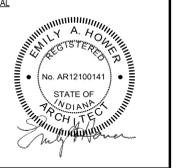
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1 First Floor Finishes Plan - Area B
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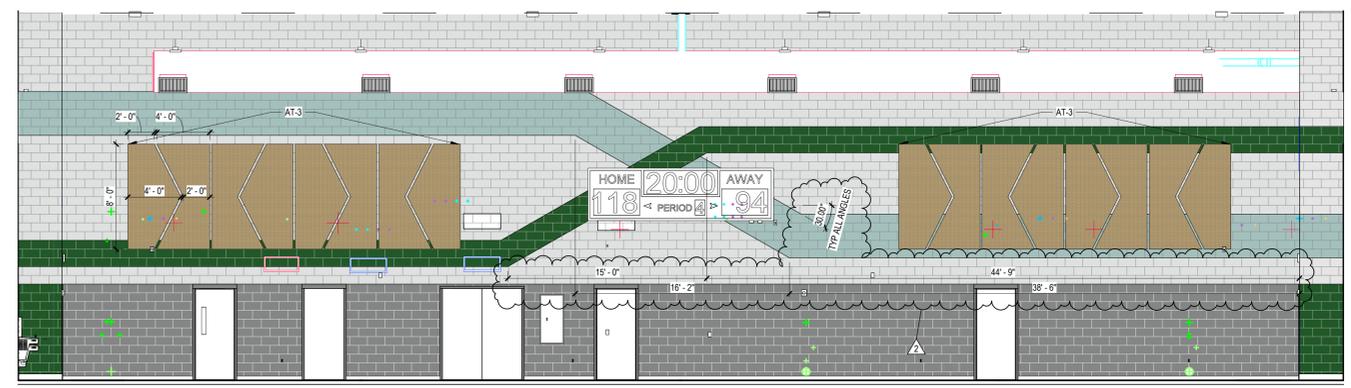
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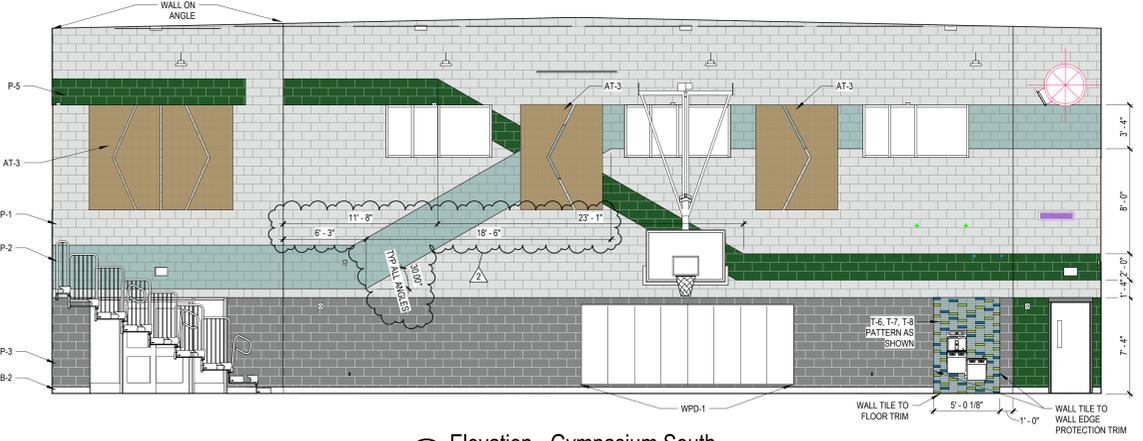
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2	Addendum #6	7-30-2024

PROJECT NO. 2301106
 ISSUE DATE 06-21-2024
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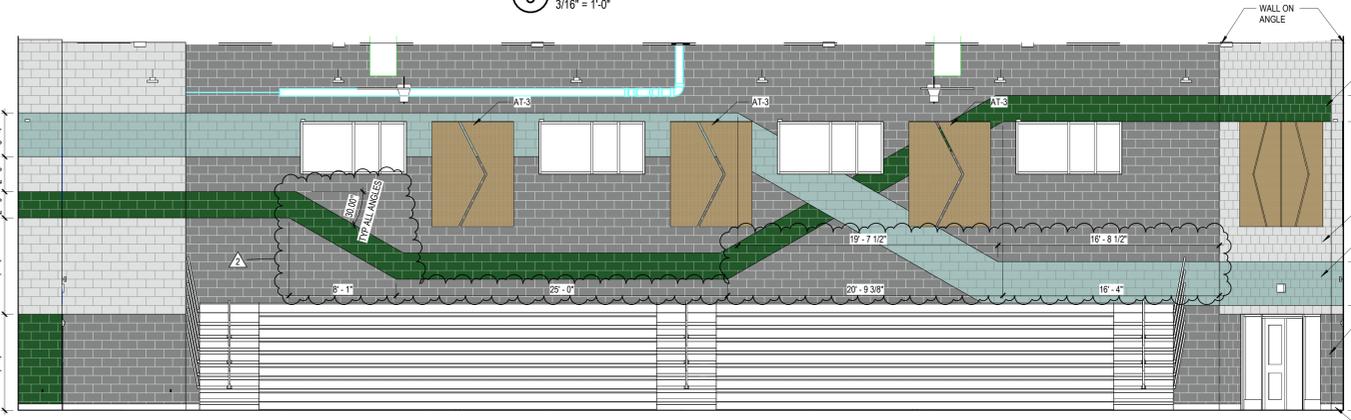
Interior Elevations



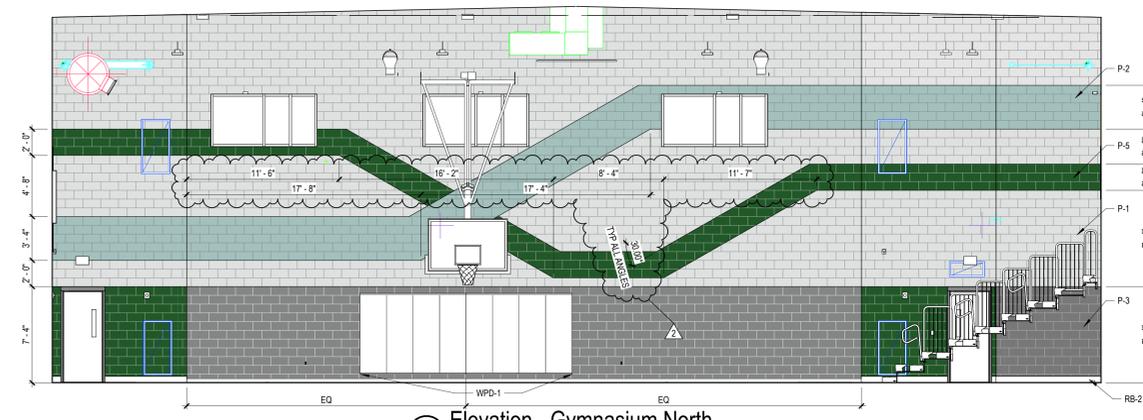
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 3/16" = 1'-0"



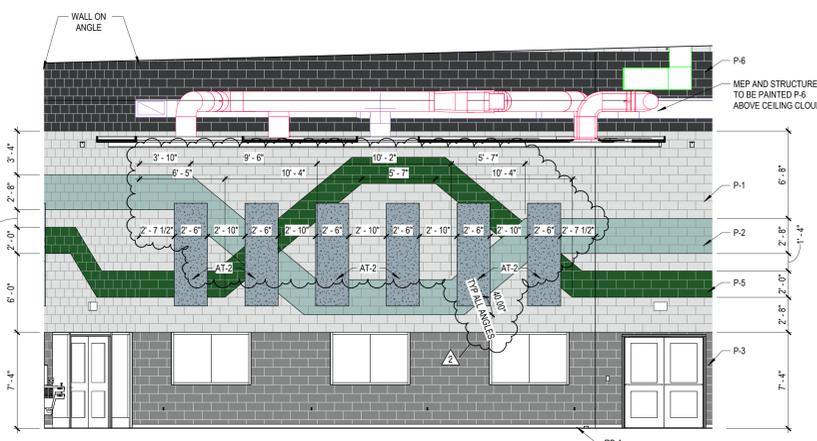
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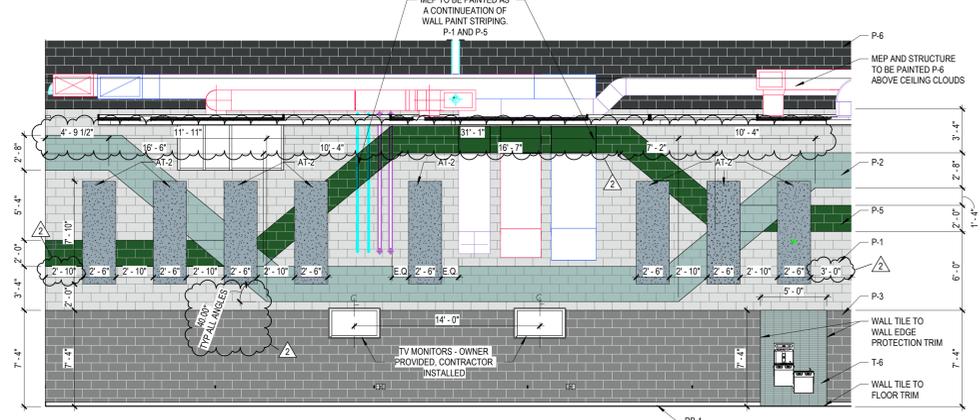
② Elevation - Gymnasium East
 3/16" = 1'-0"



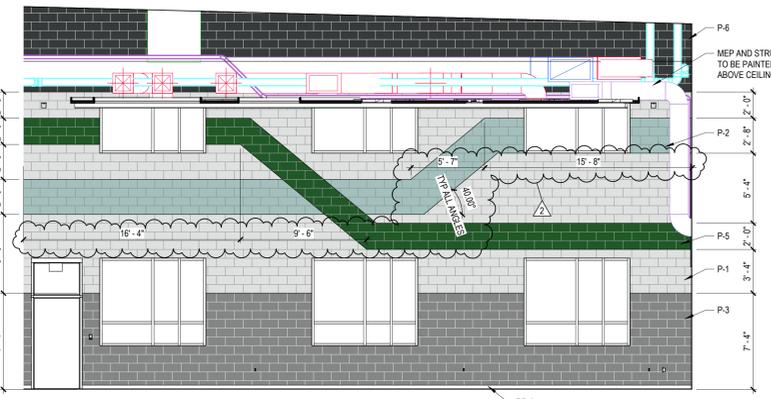
① Elevation - Gymnasium North
 3/16" = 1'-0"



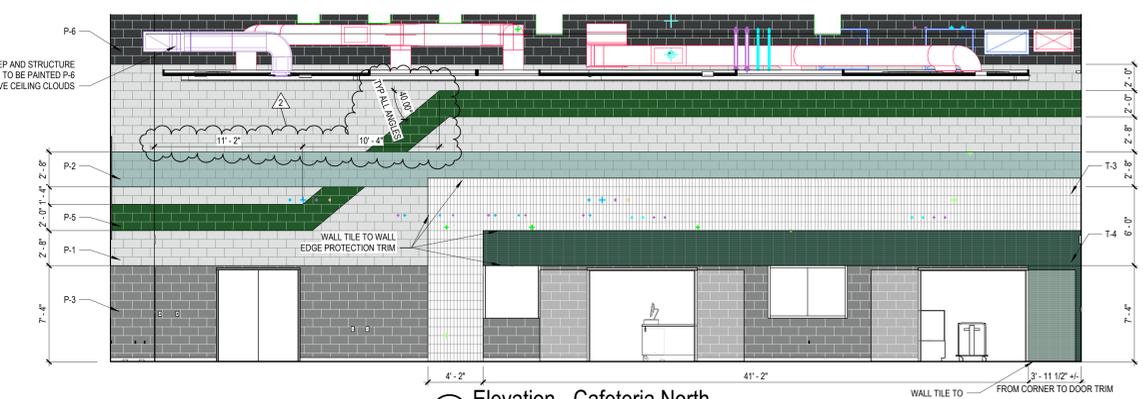
⑧ Elevation - Cafeteria West
 3/16" = 1'-0"



⑦ Elevation - Cafeteria South
 3/16" = 1'-0"



⑥ Elevation - Cafeteria East
 3/16" = 1'-0"



⑤ Elevation - Cafeteria North
 3/16" = 1'-0"

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

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FINISH COMMENTS

- REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL FINISH INFORMATION.
- P-3 TO BE APPLIED FROM FLOOR TO 3" A.F.F. U.N.O.
- PROVIDE 4" HIGH RESINUS INTEGRAL COVE BASE WITH 3/4" RADIUS IN ROOMS INDICATED IN FINISH SCHEDULE U.N.O.
- PROVIDE SB-1 AT COOLER AND FREEZER EXTERIOR FACE ONLY.

ROOM FINISH SCHEDULE

Room No.	Room Name	Floor	Base	Wall				Ceiling	Comments
				North	East	South	West		
FIRST FLOOR									
001	VESTIBULE	CPT-4	RB-1	P-1	P-1, P-2, P-3, PL-2	P-1	P-1, P-2, P-3	ICA-1	1,2
002	COMMONS	LVT-1	RB-1	P-1, P-2, P-3, P-4	P-1, P-2, P-3, P-4	P-1	P-1, P-2, P-3, P-4	ICA-1	1,2
003	COLLABORATION	CPT-1, CPT-2, CPT-3	RB-1	P-1, P-2, P-3	P-1, P-2, P-3, BB-1, MB-3	P-1, P-2, P-3	P-1, P-2, P-3, P-4	APC-1	1,2
004	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-1	APC-1	
005	STORAGE	CPT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
006	K RR	T-1	T-1	P-3, P-4	P-1	P-1	P-1	APC-2	
007	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
008	K RR	T-1	T-1	P-1	P-1	P-1	P-3, P-4	P-1	APC-2
009	STORAGE	SC-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
010	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-2	P-1	P-1	APC-1	
011	PRE-K RR	T-1	T-1	P-3, P-4	P-1	P-1	P-1	APC-2	
013	CLASSROOM	CPT-2, LVT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
014	K RR	T-1	T-1	P-1	P-1	P-1	P-3, P-4	P-1	APC-2
015	STORAGE	CPT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
016	VESTIBULE	CPT-4	RB-1	P-1, P-2, P-3	P-1, P-2, P-3, BB-1	P-3, BB-1	P-1, P-2, P-3	APC-1, GYP-1	1,2
017	T RR	T-1	T-1	P-3, P-4	P-1	P-1	P-1	APC-2	
018	JANITOR	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
019	CLASSROOM	CPT-2, LVT-1	RB-1	P-1, P-2	P-1	P-1	P-1	APC-1	
020	STORAGE	LVT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
021	PRE-K RR	T-1	T-1	P-1	P-1	P-3, P-4	P-1	APC-2	
022	TEACHER WORK ROOM	LVT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
023	CIRCULATION	CPT-1, CPT-2, LVT-2	RB-1	P-1, P-2	P-1, P-2, P-3, T-6	P-3, BB-1	P-1, P-2, P-3, BB-2	APC-1	1,2
024	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-2	P-1	APC-1	
025	CIRCULATION	CPT-1, CPT-2	RB-1	P-1, P-2, P-3	P-1, P-2, P-3	P-3, BB-1	P-3, BB-1	APC-1	1,2
026	SENSORY	CPT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
027	RR	T-1, T-2	T-1	P-1, P-3, P-4	P-1, P-3, P-4, T-6, T-7, T-8	P-1, P-3, P-4	P-1, P-3, P-4	APC-2, GYP-1	1,2
028	RR	T-1, T-2	T-1	P-1, P-3, P-4	P-1, P-3, P-4, T-6, T-7, T-8	P-1, P-3, P-4	P-1, P-3, P-4	APC-2, GYP-1	1,2
029	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-2	P-1	APC-1	
030	STORAGE	SC-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
031	RECESS STORAGE	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
032	VESTIBULE	CPT-4	RB-1	P-1, P-2, P-3	P-1, P-2, P-3	P-3	P-3	APC-1	1,2
033	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
034	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
035	IDF	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
036	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
037	CIRCULATION	CPT-1, CPT-2	RB-1	P-1, P-2, P-3, BB-2	P-1, P-2, P-3	P-2, P-3, BB-1	P-1, P-2, P-3, BB-1	APC-1, GYP-1	1,2
038	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
039	SPECIAL ED.	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
040	VESTIBULE	CPT-4	RB-1	P-3	P-1, P-2, P-3	P-1, P-2, P-3	P-1, P-2, P-3	APC-1	1,2
041	DISPLAY	OAK	--	OAK	GLASS	BB-2	OAK	OAK	
042	GYMNASIUM	WSF-1	RB-2	P-1, P-2, P-3, P-5, WPD-1	P-1, P-2, P-3, P-5, AT-3, T-6, T-7, T-8, WPD-1	P-1, P-2, P-3, P-5, AT-3	P-1, P-2, P-3, P-5, AT-1, EXPD	1	
044	GIRLS LOCKER ROOM	T-1, T-2	T-1	P-1, P-3	P-1, P-3, P-5	P-1, P-3	P-1, P-3	APC-2	
045	ELECTRICAL	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
046	BOYS LOCKER ROOM	T-1, T-2	RB-1	P-1, P-3, P-5	P-1, P-3, P-5	P-1, P-3	P-1, P-3	EXPSD	
047	GYM STORAGE	SC-1	RB-1	P-3	P-3	P-3	P-3	EXPSD	
048	PE OFFICE	CPT-1	RB-1	P-1	P-1	P-2	P-1	APC-1	
049	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
050	PE RR	T-1	T-1	P-1	P-1	P-2	P-1	APC-2	
051	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
052	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-2	P-2	APC-1	
053	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
054	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
056	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
057	JAN STR	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
058	JAN OFFICE	SC-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
059	BOILER ROOM	SC-1	--	P-1	P-1	P-1	P-1	EXPSD	
061	ELECTRICAL	SC-1	--	P-1	P-1	P-1	P-1	EXPSD	
062	CIRCULATION	CPT-1, CPT-2, CPT-4, SC-1	RB-1	P-1, P-2, P-3, BB-2	P-3	P-1, P-2, P-3, BB-2	P-1, P-2, P-3, BB-1	APC-1, GYP-1	1,2
063	KITCHEN	EPX-2, SB-1	HPC-1	HPC-1, HPC-2	HPC-1, HPC-2	HPC-1, HPC-2	HPC-1, HPC-2	APC-2	
064	DRY STR	EPX-1	RB-1	P-1	P-1	P-1	P-1	APC-2	
065	OFFICE	EPX-1	EPX-1	P-1	P-1	P-1	P-1	APC-1	
066	STORAGE	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
067	LOCKER	EPX-1	EPX-1	P-1	P-1, P-3	P-1	P-1	APC-2	
068	RR	EPX-1	EPX-1	P-1	P-1	P-1	P-1, P-3	APC-2	
069	CAFETERIA	LVT-1	RB-1	P-1, P-2, P-3, P-5, P-6, T-3, T-4	P-1, P-2, P-3, P-5, P-6, AT-2, T-6	P-1, P-2, P-3, P-5, P-6, AT-2	P-1, P-2, P-3, P-5, AT-1, EXPD	1	
070	STAR	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
071	CAF STR	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
072	TEACHERS LOUNGE	CPT-2, LVT-1	RB-1	P-1	P-1	P-2	P-1	APC-1	
073	CIRCULATION	CPT-1, CPT-2	RB-1	P-1, P-2, P-3, PL-3	WC-1	P-1, P-2, P-3, BB-2	P-1, P-2, P-3, BB-1	APC-1, GYP-1	1,2
074	VESTIBULE	CPT-4	RB-1	P-1, P-2, P-3	P-3	P-1, P-2, P-3	P-1, P-2, P-3	APC-1	1,2
075	WASH	EPX-2	EPX-2	HPC-1	HPC-1	HPC-1	HPC-1	APC-2	
076	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-2	P-1	P-1	APC-1	
077	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-2	P-1	P-1	APC-1	
078	CLASSROOM	CPT-1, CPT-2	RB-1	P-1	P-2	P-1	P-1	APC-1	
079	RR	T-1, T-2	T-1	P-1, P-3, P-4	P-1, P-3, P-4	P-1, P-3, P-4	P-1, P-3, P-4, T-6, T-7, T-8	APC-2, GYP-1	1,2
080	CIRCULATION	CPT-1, CPT-3	RB-1	P-1, P-2, P-3	P-1, P-2, P-3	P-1, P-2, P-3	P-1, P-2, P-3	APC-1, GYP-1	1,2
081	RR	T-1, T-2	T-1	P-1, P-3, P-4	P-1, P-3, P-4	P-1, P-3, P-4	P-1, P-3, P-4, T-6, T-7, T-8	APC-2, GYP-1	1,2
082	TEACHER WORKROOM	CPT-1, LVT-1	RB-1	P-1, P-2, P-3	P-1, P-2, P-3	P-1, P-2, P-3	P-1, P-3	APC-1	1,2
083	SPEECH	CPT-1	RB-1	P-1	P-1	P-2	P-1	APC-1	
084	ELL	CPT-1	RB-1	P-2	P-1	P-1	P-1	APC-1	
085	T RR	T-1	T-1	P-1	P-3, P-4	P-1	P-1	APC-2	
086	STORAGE	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
087	MUSIC	CPT-1, CPT-2	RB-1	P-1	P-1	P-1	P-2	APC-1	
088	STR	CPT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
089	ART	LVT-2, LVT-3	RB-1	P-1	P-2	P-1	P-1	APC-1	
091	STR	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
092	GROUPED RR	T-1, T-2	T-1	P-1, P-2, P-3	P-2	P-1, P-2, P-3	P-1, P-3	APC-2, GYP-1	1,2
093	MDF	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
094	TECH	CPT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
096	STORAGE	CPT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
097	CIRCULATION	LVT-1	RB-1	P-1, P-2, P-3	P-1, P-2, P-3, T-6, T-7, T-8	P-1, P-2, P-3	P-1, P-2, P-3, WC-1	APC-1	1,2
098	OFFICE	CPT-1	RB-1	P-1	P-2	P-1	P-1	APC-1	
099	MEDIA CENTER	CPT-1, CPT-3	RB-1	P-1, BB-1	P-1, P-2, P-4, BB-1	P-1, BB-1	P-1	APC-1, GYP-1, ABF-1	
101	ALTERNATIVE LEARNING	CPT-1	RB-1	P-2	P-1	P-1	P-2	APC-1	
102	CIRCULATION	CPT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
103	CLINIC	LVT-2, LVT-3	RB-1	P-2	P-1	P-1	P-1, RWP-1	APC-1	1
104	RR	T-1	T-1	P-1	P-1	T-6, T-8	P-1	APC-2	
105	RR	T-1	T-1	T-6, T-7	P-1	P-1	P-1	APC-2	
106	IT/ELEC	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
107	STORAGE	SC-1	RB-1	P-1	P-1	P-1	P-1	EXPSD	
108	OPPORTUNITY	CPT-1	RB-1	P-1	P-3	P-1	P-1	APC-1	
109	CONFERENCE	CPT-3	RB-1	P-1, RWP-1	P-3	P-1	P-1, RWP-1	APC-1	1
110	OFFICE	CPT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
111	OFFICE	CPT-1	RB-1	P-1	P-1	P-1	P-2	APC-1	
112	OFFICE	CPT-1	RB-1	P-1	P-1	P-1	P-2	APC-1	
113	FREEZER	EPX-1	--	--	--	--	--	EXPSD	
114	BOOK KEEPER	CPT-1	RB-1	P-1	P-2	P-1	P-1	APC-1	
115	CLINIC STORAGE	CPT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	
116	MAIL WORK	LVT-1	RB-1	P-1	P-1	P-1	P-1	APC-1	1
117	RECEPTION	CPT-1, CPT-2	RB-1	P-3, P-5	P-1	P-1	P-3	APC-1, GYP-1	
118	COOLER	EPX-1	--	--	--	--	--	EXPSD	
T.O. MASONRY									
201	MEZZANINE	WFF-1	--	P-1	P-1	P-1	P-1	EXPSD	
201	MEZZANINE	WFF-1	--	P-1	P-1	P-1	P-1	EXPSD	

FINISH LEGEND

03 35 10) CONCRETE FLOOR SEALERS	09 51 13) ACOUSTICAL PANEL CEILING	09 80 00) ACOUSTICAL WALL TREATMENT
SC-1 MFG: V-SEAL CONCRETE SEALERS TYPE: FIBERGLASS ACETONE FINE FISURED 1810 COLOR: CLEAR NOTE: CONTROL JOINTS AS REQUIRED FOR STRUCTURAL - SELF-LEVELING POLYURETHANE SEALANT COLOR TBD BY DESIGNER	APC-1 MFG: ARMSTRONG WORLD INDUSTRIES, INC. TYPE: FIBERGLASS ACOUSTICAL WALL PANEL EDGE STYLE: SQUARE LAY-IN SIZE: 24" X 24" X 1/4" GRID: PRELUDE 1518T TILE/GRID COLOR: WHITE (WH) TEXTURE: SMOOTH	AT-2 MFG: ARMSTRONG WORLD INDUSTRIES, INC. TYPE: FIBERGLASS ACOUSTICAL WALL PANEL EDGE STYLE: SQUARE SIZE: 24" X 24" X 1/4" GRID: PRELUDE 1518T TILE/GRID COLOR: WHITE (WH) TEXTURE: SMOOTH
05 50 00) METAL FABRICATIONS	APC-2 MFG: ARMSTRONG WORLD INDUSTRIES, INC. TYPE: CERAMAGUARD FINE FISURED 607 EDGE STYLE: SQUARE LAY-IN SIZE: 24" X 24" X 3/4" GRID: PRELUDE 1518T TILE/GRID COLOR	



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www.primary-eng.com



Addendum: **6**
Date: **7/30/2024**
Project: **Milford Elementary School**

Comm #: **23530**

The following items shall be incorporated into the specifications and drawings and are considered to be integral to the bid documents for the project. Acknowledgement of receipt of this addendum is required on the bid form.

Item #1: Specification 223100 Domestic Water Softeners

- A. 2.2.C – Mounting: mounting skids not required.

Item #2: Specification 221123.13 Domestic-Water Packaged Booster Pumps

- A. Add Grundfos as an approved manufacturer.

Item #3: Specification 221123.21 Inline Domestic Water Pumps

- A. Add Grundfos as an approved manufacturer.

Item #4: Specification 221223.11 Facility Indoor Potable Water Storage Tanks

- A. Add Grundfos as an approved manufacturer.

Item #5: Specification 232116 Hydronic Piping Specialties

- A. Add Grundfos as an approved manufacturer.

Item #6: Specification 232123 Hydronic Pumps

- A. Add Grundfos as an approved manufacturer.

Item #7: Specification 235700 Heat Exchangers for HVAC

- A. Add Grundfos as an approved manufacturer.

Item #8: Specification 263213.13 Diesel-Engine-Driven Generator Set

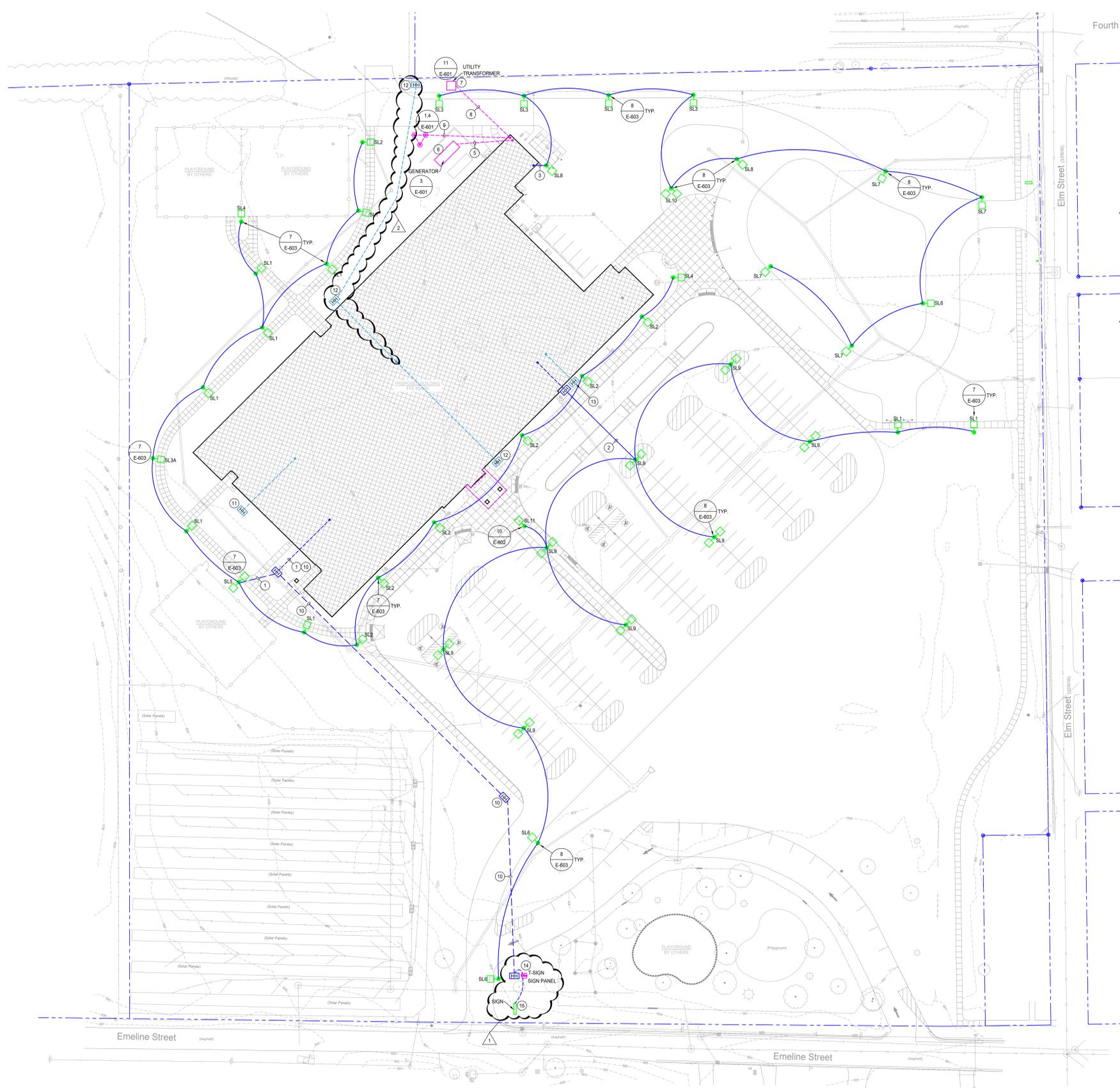
- A. 2.2.D – Engine Exhaust Emissions: Comply with EPA Tier 3 requirements and applicable state and local government requirements.
- B. 2.9.A.2 – Prefabricated or pre-engineered, galvanized-steel-clad, integral structural-steel-framed enclosure: on skid frame.

Item #9: Specification 275116 Public Address Systems

- A. Add (Rm 069 Cafeteria) 2.10 Loudspeaker JBL Control 200 Series Medium format with Sub-Woofer. These shall be selected by the sound contractor as the Ease modeling is being done for gym.

Item #10: Drawing Sheet ES-201, "Electrical Site Plan"

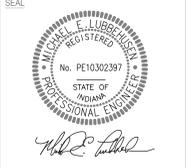
- A. Added communications conduits to north property line. See attached revised drawing.



- PLAN NOTES**
- CONNECT SITE LIGHTING TO CIRCUIT H3-13(15) WIRED THROUGH LIGHTING CONTACTOR LC2 IN ELECTRICAL ROOM 045 USING 1" C, 3/8" #10 GROUND. LOCATE CONTACTOR ON WALL NEXT TO PANEL H3. SEE SITE LIGHTING DETAIL FOR ADDITIONAL WORK.
 - CONNECT SITE LIGHTING TO CIRCUIT H2-13(15) WIRED THROUGH LIGHTING CONTACTOR LC3 IN ELECTRICAL ROOM 106 USING 1" C, 3/8" #10 GROUND. LOCATE CONTACTOR ON WALL NEXT TO PANEL H2. SEE SITE LIGHTING DETAIL FOR ADDITIONAL WORK.
 - CONNECT SITE LIGHTING TO CIRCUIT H1-13(17) WIRED THROUGH LIGHTING CONTACTOR LC4 IN ELECTRICAL ROOM 061 USING 1" C, 3/8" #10 GROUND. LOCATE CONTACTOR ON SOUTH WALL. SEE SITE LIGHTING DETAIL FOR ADDITIONAL WORK.
 - CONNECT SITE SIGN TO CIRCUIT H3-17(19) WIRED THROUGH LIGHTING CONTACTOR LC5 IN ELECTRICAL ROOM 045 USING 1" C, 3/8" #10 GROUND. LOCATE CONTACTOR ON SOUTH WALL. SEE SITE LIGHTING DETAIL FOR ADDITIONAL WORK.
 - EXTEND POWER AND CONTROL CIRCUITS FOR GENERATOR. SEE SHEET E-501, DISTRIBUTION RISER DIAGRAM FOR WIRING AND CONTROL INFORMATION. COORDINATE CONTROL WIRING WITH GENERATOR PROVIDER.
 - PROVIDE AND INSTALL CONCRETE PAD FOR GENERATOR. SEE PAD DETAIL FOR REQUIREMENTS.
 - PROVIDE AND INSTALL NEC GROUNDING TRIAD WITH GROUND CONDUCTOR TO SERVICE ENTRANCE GROUND BUS IN ELECTRICAL ROOM 061. SEE SPECIFICATIONS AND DETAILS.
 - PROVIDE AND INSTALL 2" C TO HANDHOLE AT SIGN PANEL SUPPORT FRAME. PROVIDE AND INSTALL HANDHOLES.
 - PROVIDE AND INSTALL COMMUNICATIONS HANDHOLE WITH (2) 2" C TO IDF ROOM 003. STUB UP 6" ABOVE FLOOR ALONG EAST WALL.
 - PROVIDE AND INSTALL COMMUNICATIONS HANDHOLE WITH (2) 2" C TO IDF ELECTRICAL ROOM 106. STUB UP 6" ABOVE FLOOR ALONG WEST WALL.
 - PROVIDE AND INSTALL 2" C, 3/8" 1-10 GROUND POWER SUPPLY FROM PANEL H3-17(19) THROUGH LC2 IN ELECTRICAL ROOM 045 TO SIGN PANEL. SEE POWER DIAGRAM ON E-501. MOUNT SIGN PANEL, DISCONNECT SWITCH AND TRANSFORMER T-SIGN ON GALVANIZED STRUT FRAME ON (2) 4" GALVANIZED POSTS IN CONCRETE FOUNDATIONS. COORDINATE FINAL LOCATION ON SITE.
 - PROVIDE AND INSTALL (3) 120V, 20A/1P CIRCUITS FROM SIGN PANEL TO GROUND MOUNTED SIGN. COORDINATE WITH SIGN PROVIDER.



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CONSTRUCTION MANAGER



Wawasee Community School Corporation
Milford Elementary School
 611 W Emeline St, Milford, IN 46542



REVISIONS		
NO.	DESCRIPTION	DATE
1	ADDENDUM #3	7-23-24
2	ADDENDUM #6	7-30-24

PROJECT NO. 230106
 ISSUE DATE 06-21-2024
 SUBMITTAL
 Issue for Bids, Permits, and Construction

Electrical Site Plan

ES-201
 PRIMARY JOB # 23530



PLAN NORTH
Electrical Site Plan
 1" = 40'-0"