

M015-14418
M016-14419

ADDENDUM NUMBER: Addendum - One
PROJECT TITLE: Milwaukee Public Museum
NORTH FAÇADE RESTORATION
Site Number: 275
Building Number: 60
800 West Wells Street
Milwaukee, Wisconsin 53233-1478
PROJECT NUMBER: M015-14418
M016-14419
DATE OF ADDENDUM: October 30, 2014

This Addendum to the Contract Documents is issued to modify, explain or correct the original Documents, Dated OCTOBER 20, 2014 and is hereby made part of the Contract Documents. Acknowledge receipt of this addendum in the space provided on the Bid Form, or bid maybe rejected.

SPECIFICATIONS

SECTION 05 05 13 – SHOP-APPLIED FLUOROPOLYMER COATINGS
Added in its entirety to the Project Manual. See Attachment.

SECTION 05 50 00 – METAL FABRICATION:
Added in its entirety to the Project Manual. See attachment.

DRAWINGS

A1.1 ELEVATIONS – DEMOLITION

- 1). Revise signage demolition note:
Existing lettering to be removed, salvaged, and refinished. Record existing letter spacing. Existing lettering shall be sent (off-site) to an applicator for refinishing (mechanically cleaned and chemically pre-treated) and a new shop-applied spray coating system – fluoropolymer coating system be applied. New aluminum angle brackets shall also be finished with matching shop-applied spray coating system. Reinstall lettering in its new location (see sheet A4.1) with new aluminum angle bracket at the same-recorded spacing of existing.

A5.2 DETAILS:

- 1). Revised detail 3 / A5.2 WINDOW JAMB:
Revise 1/2-inch sealant & backer rod dimension to; 3/8-inch. See attached detail.
- 2). Revised detail 4 / A5.2 TYPICAL WINDOW HEAD:
Revise 1/2-inch sealant & backer rod dimension to; 3/8-inch. See attached detail.
- 3). Revised detail 5 / A5.2 TYPICAL WINDOW SILL:
Revise 1/2-inch sealant & backer rod dimension to; 3/8-inch. See attached detail.
- 4). Revised detail 8 / A5.2 SIGN SUPPORT FRAMING:
Add note: Existing lettering and new aluminum angle bracket shall be finished with a shop-applied spray coating system – fluoropolymer coating system.

M015-14418
M016-14419

S5.1 STRUCTURAL DETAILS AND GENERAL NOTES

1). GENERAL NOTES

COLD-FORMED STEEL FRAMING

Revise General Note No. 4 to the following:

- All members shall be a minimum thickness of 12-gauge and a minimum of 50-KSI steel.

END OF ADDENDUM ONE

Attachments:

SPECIFICATIONS

SECTION 05 50 00 – METAL FABRICATION

SECTION 05 05 13 – SHOP-APPLIED FLUOROPOLYMER COATINGS

DRAWINGS

Detail 3 / A5.2 WINDOW JAMB

Detail 4 / A5.2 TYPICAL WINDOW HEAD

Detail 5 / A5.2 TYPICAL WINDOW SILL.

**SECTION 05 05 13
SHOP-APPLIED FLUOROPOLYMER COATINGS**

PART 1 GENERAL

1.1 SUMMARY

- A. Surface preparation and painting of existing signage.
 - 1. Shop-applied, spray coating system – fluoropolymer coating system.
- B. Related Sections:
 - 1. Section 05 50 00 – Metal Fabrications

1.2 REFERENCES

- A. ASTM International:
 - 1. ASTM D1400 Standard Test Method for Nondestructive Measurement of Dry Film Thickness of Nonconductive Coatings Applied to Nonferrous Metal Base.
 - 2. ASTM D3363 Standard Test Method for Film Hardness by Pencil Test.
- B. American Architectural Manufacturers Association:
 - 1. AAMA 2605 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.

1.3 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit data on finishing products and coatings.
 - 1. Submit manufacturer's complete set of color samples for initial selections.

1.4 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years experience.
- B. Applicator: Company specializing in the application of coatings specified in this section in adherence to AAMA 2605 with minimum 3 years experience.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Product storage and handling requirements.
- B. Deliver finish painted signage to site in sealed and labeled containers; inspect to verify acceptability.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements.
- B. Do not apply materials when surface and ambient temperatures are outside temperature ranges required by paint product manufacturer.

- C. Provide lighting level of 80 ft candle measured mid-height at substrate surface.

1.7 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Product warranties and product bonds.
- B. Coating Applicator's Warranty: Applicator agrees to repair finish or replace coated items that demonstrate deterioration of shop-applied, spray coating system finished within warranty period indicated.
 - 1. Warranty Period: Ten (10) years from date of Substantial Completion.
 - 2. Exposed Coating: Deterioration includes but is not limited to:
 - a. Color fading in excess of 5 Delta E Hunter units per ASTM D2244.
 - b. Peeling, checking, or cracking of coating adhesion to metal.
 - c. Chalking in excess of a No. 8 when tested per Method D24214.
 - d. Corrosion in excess of a No. 6 on cut edges and a No. 9 on field surfaces, when measured per ASTM D1654.

PART 2 PRODUCTS

2.1 MANUFACTURES

- A. Manufacturer, Resin: Subject to compliance with requirements, provide coating systems containing Kynar 500 FSF PVDF resin by:
 - 1. Arkema Inc. or approved equal.

2.2 SUPERIOR PERFORMANCE ORGANIC COATING ON ALUMINUM EXTRUSIONS

- A. Liquid Fluoropolymer Aluminum Extrusion Coatings, AAMA 2605: Minimum 70 percent Kynar 500 FSF PVDF resin, by weight, in color coat and clear coat.
 - 1. Product: AkzoNobel
 - 2. Pencil Hardness, ASTM D3363: F minimum.
 - 3. Dry Film Thickness, ASTM D1400; 0.20 mil primer coat; total coating thickness, 1.4 to 1.8 mils dry; baked on at 414 degrees F; and meets AAMA 2605-05.

2.3 PRIMER MATERIALS

- A. Manufacturer's standard for finish and substrate indicated.

2.4 SHOP FINISHING METHODS

- A. Mechanically clean and chemically pre-treat existing signage in accordance with the coating manufacturer's requirements and AAMA requirements for the finish indicated.
- B. Apply primer and finish coats in accordance with the coating manufacturer's requirements for the finish indicated.
- C. Apply in accordance with requirements of AAMA 2605.

PART 3 EXECUTION (Not Used)

END OF SECTION

**SECTION 05 50 00
METAL FABRICATIONS**

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Shelf Angle Modification.
 - 2. Unit Price 2 – Angle Splice.
 - 3. Unit Price 3 – Angle Splice.
 - 4. Sign Support – Aluminum Angle Bracket.

- B. Related Requirements:
 - 1. Section 05 40 00 – Cold-Formed Metal Framing
 - 2. Section 07 26 70 – Moisture Barrier
 - 3. Section 07 42 43 – Composite Wall Panels
 - 4. Section 09 90 00 – Painting

1.2 REFERENCE STANDARDS

- A. American Iron and Steel Institute:
 - 1. AISI SG-973 – Cold-Formed Steel Design Manual.

- B. ASTM International:
 - 1. ASTM A36 - Standard Specification for Carbon Structural Steel.
 - 2. ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - 3. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.
 - 4. ASTM A653 – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Coated (Galvannealed) by the Hot-Dip Process.
 - 5. ASTM A992 - Standard Specification for Structural Steel Shapes.
 - 6. ASTM A563 – Standard Specification for Carbon Alloy Steel Nuts.
 - 7. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.
 - 8. ASTM F436 - Standard Specification for Hardened Steel Washers.

- C. American Welding Society:
 - 1. AWS D1.1 - Structural Welding Code - Steel.

- D. SSPC: The Society for Protective Coatings:
 - 1. SSPC Paint 20 - Zinc-Rich Coating (Type I - Inorganic and Type II - Organic).

1.3 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

- B. Shop Drawings:
 - 1. Indicate component details, framed openings, bearing, anchorage devices, size and type of fasteners, and accessories. Include erection drawings; plans, elevations, and details where applicable.
 - 2. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.

M015-14418
M016-14419

- C. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within previous 12 months.
- D. Product Data: Submit data on standard framing members; describe materials and finish, product criteria and limitations.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with the following:
 - 1. Structural Steel: AISC 360.
- B. Perform Work according to the State of Wisconsin – Commercial Building Code.
- C. Maintain one copy of each standard affecting the Work of this Section on-Site.

1.5 QUALIFICATIONS

- A. Fabricator: Company specializing in fabricating products in this section with a minimum five years experience.
- B. Installer: Company specializing in performing Work of this section with a minimum five years experience.
- C. Welders and Welding Procedures: AWS D1.1 qualified within previous 12 months.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Inspection: Accept metal fabrications on-site in labeled shipments. Inspect for damage.
- C. Protect metal fabrications from damage by exposure to weather or by ground contact.

PART 2 PRODUCTS

2.1 SHELF ANGLE MODIFICATIONS

- A. Steel Channels and Angles: ASTM A36/A36M; Grade 50
 - 1. Finish: Hot-Dipped galvanized per ASTM A123.
 - 2. Touch-Up Primer for Galvanized Surfaces: SSPC Paint 20 Type I Inorganic.

2.2 UNIT PRICE 2 and 3 – ANGLE SPLICE

- A. Steel Angles: ASTM A36/A36M; Grade 50
 - 1. Size and profile indicated on drawings.
 - 2. Finish: Hot-Dipped galvanized per ASTM A123.
 - 3. Touch-Up Primer for Galvanized Surfaces: SSPC Paint 20 Type I Inorganic.

2.3 SIGN SUPPORT – ALUMINUM ANGLE BRACKET

- A. Aluminum Angle Bracket:
 - 1. Size: Extruded Aluminum (alloy 6063 T5) Angle: 2-inches x 1-1/2-inches x 1/8-inch size. Sign installer shall field verify length required.

M015-14418
M016-14419

2. Finish: Chemical conversion coating, ready to paint. Paint shall match signage.
3. Fasteners: Provide corrosion resistant stainless steel, Type 316, mechanical fasteners meeting Composite Wall Panel manufacturer's requirements for fasteners to be used with metal mounting frame.

2.4 WELDING MATERIALS

- A. Welding Materials: AWS D1.1; type required for materials being welded.
 1. Electrodes for Arc Welding: Comply with AWS Code E70XX.

2.5 FABRICATION

- A. Fit and shop assemble items in largest practical sections for delivery to Site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Continuously seal joined members by continuous welds.
- D. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small, uniform radius.
 1. Exposed Welded Joints: NOMMA Guideline 1 Joint Finish.
- E. Fabrication Tolerances:
 1. Maximum Offset between Faces: 1/16-inch.
 2. Maximum Misalignment of Adjacent Members: 1/16-inch.
 3. Maximum Bow: 1/8-inch in 48-inches.
 4. Maximum Deviation from Plane: 1/16-inch in 48-inches.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Requirements for installation examination.
- B. Verify field conditions are acceptable and are ready to receive Work.

3.2 PREPARATION

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation preparation.
- B. Clean and strip primed steel items to bare metal where Site welding is required.

3.3 INSTALLATION

- A. Install items plumb and level, accurately fitted, and free from distortion or defects.
- B. Make provisions for erection stresses. Install temporary bracing to maintain alignment until permanent bracing and attachments are installed.
- C. Field weld components indicated on Shop Drawings.
- D. Perform field welding according to AWS D1.1.

M015-14418
M016-14419

- E. Obtain approval of Architect / Engineer prior to Site cutting or making adjustments not scheduled.

3.4 TOLERANCES

- A. Section 01 40 00 - Quality Requirements: Requirements for tolerances.
- B. Maximum Variation from Level: 1/16-inch in 4 ft. and 1/4-inch in 10 ft.
- C. Maximum Offset from Alignment: 1/16-inch.

3.5 FIELD QUALITY CONTROL

- A. Section 01 40 00 - Quality Requirements: Requirements for inspection.
- B. Welding: Inspect welds according to AWS D1.1.
- C. After erection, touch up welds, abrasions, and damaged finishes with galvanizing repair paint to match shop finishes.
- D. Touch up factory-applied finishes according to manufacturer-recommended procedures.

3.6 ADJUSTING

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for starting and adjusting.

END OF SECTION

SMF-4

CONTINUOUS FLASHING
CLIP ANGLE ATTACHED
TO CMU (BY PANEL
CONTRACTOR)
ATTACHMENT SCREW 2"
MIN. FROM EDGE OF CMU
(TYPICAL)

MB-1

ON CMU WITH FLASHING
PIECE LAPPED OVER SMF-2

STL FURG-2

FRAMING SYSTEM
PROVIDED BY PHENOLIC
PANEL CONTRACTOR

SPP-1

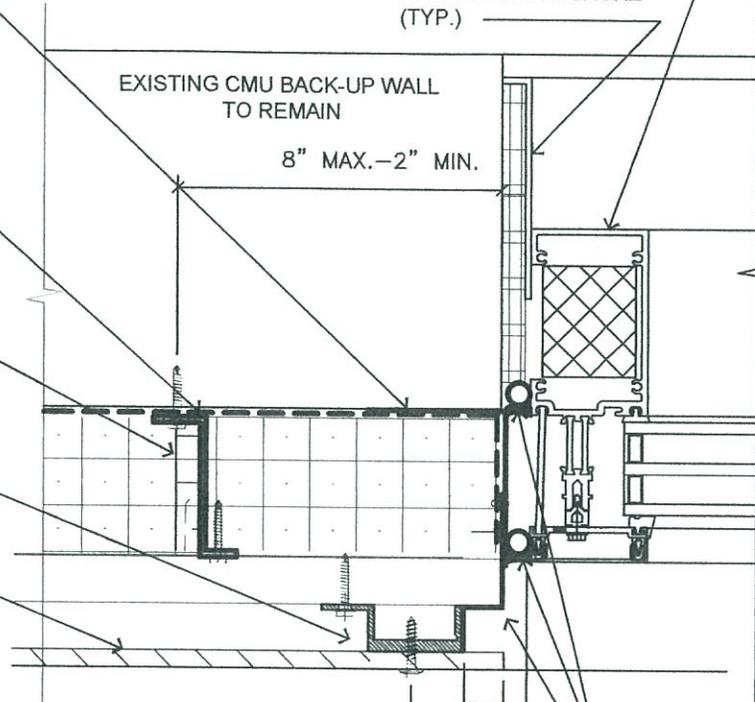
.080 ALUMINUM CLOSURE PANEL (MIN.),
BY PANEL SUPPLIER (NOT PERFORATED)

NEW WINDOW SYSTEM.

EXTRUDED CLOSURE
(TYP.)

EXISTING CMU BACK-UP WALL
TO REMAIN

8" MAX. - 2" MIN.



SEALANT & BACKER ROD BOTH
SIDES. TYP.
LOCATE PER MANUFACTURER'S
RECOMENDAION

7/8" 1/2"

2"

3 WINDOW JAMB
3" = 1'-0"

3/8"

INSUL 26

3"

EXISTING CMU BACK-UP WALL TO REMAIN

MB-1

ON CMU W/ FLASHING PIECE. SEAL WINDOW SYSTEM

CURTAIN WALL ANCHOR CENTER ON CMU

INSUL 26

(VERIFY REQUIREMENTS)

ALUMINUM TRIM STOOL

CURTAIN WALL SYSTEM. PROVIDE STRUCTURAL BRACING AS REQ'D BY MANUFACTURER.

FRAMING SYSTEM PROVIDED BY PANEL CONTRACTOR

SEALANT & BACKER ROD

.080 ALUMINUM PERF PANEL (MIN.), BY PANEL SUPPLIER

SMF-4

DRIP - ATTACHMENT : FROM EDGE OF CMU

3/8"

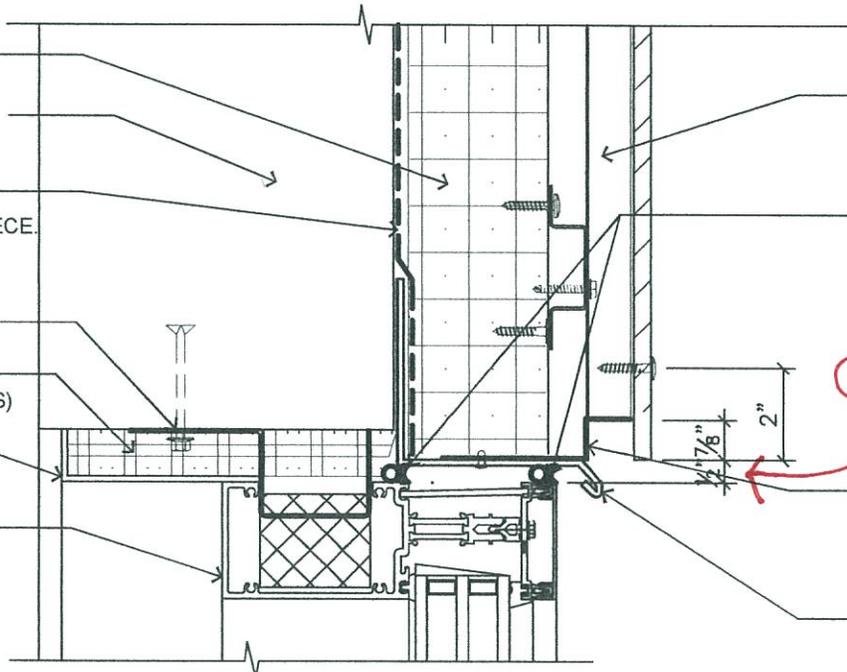
1/2" 7/8"

2"

4

TYPICAL WINDOW HEAD

3" = 1'-0"



CURTAIN WALL SYSTEM.
PROVIDE STRUCTURAL
BRACING AS REQ'D BY
MANUFACTURER.

1/2" +/-

CURTAIN WALL ANCHOR
CENTER ON CMU

INSUL 26
(VERIFY REQUIREMENTS)

ALUMINUM TRIM
STOOL

MB-1
ON CMU W/ FLASHING
PIECE. SEAL CURTAIN
SYSTEM

INSUL 26
3"

EXISTING CMU BACK-UP
WALL TO REMAIN

3/8"

SEALANT & BACKER
ROD PER
MANUFACTURE'S
RECOMENDATION

1/2"

2"

SMF-2
w/ CONT. CLIP
PITCH TOP 1/2"
PROVIDE BLOCKING
WEDGE

FRAMING SYSTEM
PROVIDED BY PANEL
CONTRACTOR

5 TYPICAL WINDOW SILL
3" = 1'-0"

