

# **ADDENDUM NO. 1**

## **ANSONIA LOCAL SCHOOL DISTRICT New Preschool Facility**

**March 18, 2015**

To: Planholders

From: Mote & Associates, Inc.  
214 West Fourth Street  
Greenville, Ohio 45331  
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Re: Ansonia Local School District  
New Preschool Facility

This Addendum #1 forms a part of the Contract Documents and modifies the original Contract Documents dated March 2015. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

### **CHANGES/CLARIFICATIONS TO THE BIDDING REQUIREMENTS:**

1. **BID FORM, SECTION 00 41 43**

The Owner has requested that we provide two options for the completion date of the project to be included with the Lump Sum Base Bid. Therefore, the Bid Form has been changed to accept Base Bids as follows:

Option #1: A completion deadline of 240 calendar days following written Notice to Proceed; and

Option #2: A completion deadline of September 1, 2015 on the condition that the Notice to Proceed is given within 14 days of the receipt of Bids or no later than April 9, 2015.

The Owner has also requested the inclusion of six (6) Alternate Bid Items to be applied to the Base Bid that will provide deductions to the Total Lump Sum Bid. These deductions may be applied to either Option #1 or #2 as listed above and in any combination(s) as desired by the Owner. Therefore, the BID FORM, Section 00 41 43 has been revised to list these Alternate Bid Items.

A "REVISED BID FORM" has been attached to this Addendum to reflect these changes and should be submitted with all bids in order to be considered responsive.

CHANGES/CLARIFICATIONS TO THE SPECIFICATIONS:

2. STANDING SEAM SHEET METAL ROOFING, SECTION 07 61 00

A technical specification that addresses the Standing Seam Roof is attached hereto.

3. FLUSH WOOD DOORS, SECTION 08 14 16

A technical specification that addresses Wood Doors is attached hereto.

4. GYPSUM BOARD (FOR WOOD STUDS), SECTION 09 29 00

A technical specification that addresses Gypsum Board is attached hereto.

CHANGES/CLARIFICATIONS TO CONSTRUCTION PLANS

5. Sheet 10 of 16, SCHEDULES

Please see the attached Door Schedule which has been provided for clarification of the Door Hardware Schedule sets.

GENERAL INFORMATION/CLARIFICATIONS

6. The wall ties shall be 22 gauge corrugated at 1 per every 3 square feet into the wood stud.
7. Base flashing shall be like Moistop Brick Masonry Veneer Flashing, 18" in width.
8. Limestone flashing is required to be placed on the window sills at a thickness of 2 ¼".

Attachments: Revised Bid Form, Section 00 41 43  
Standing Seam Sheet Metal Roofing, Section 07 61 00  
Gypsum Board (for wood studs), Section 09 29 00  
Flush Wood Doors, Section 08 14 16  
Door Schedule

End of Addendum

**REVISED BID FORM**

**00 41 43**

**ARTICLE 1 – BID RECIPIENT**

- 1.01 This Bid is submitted to: **[Ansonia Local School District, 600 East Canal Street, Ansonia, Ohio]**
- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS**

- 2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

**ARTICLE 3 – BIDDER’S REPRESENTATIONS**

- 3.01 In submitting this Bid, Bidder represents that:
  - A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

**Addendum No.**

**Addendum, Date**

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- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance

of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.
- k. Bidder agrees that the contracting authority reserves the right to reject any or all bids, to waive any informalities or irregularities in the bids received, and to accept that bid which is considered lowest and to the best interest of the Owner.

#### **ARTICLE 4 – BIDDER'S CERTIFICATION**

##### **4.01 Bidder certifies that:**

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

**ARTICLE 5 – BASIS OF BID**

5.01 Bidder agrees that any item not specifically shown or called out on the plans or within the specifications, but is required to complete the work in place and fully operational, shall be included in the bid item that is most closely associated with that portion of the work.

5.02 Bidder will complete the Work in accordance with the Contract Documents for the following price(s) and will contract to do all the work and furnish all the materials called for by said plans and specifications, and in consideration, accept from the Owner as full payment for the completion of each item and any required maintenance as hereinafter provided, for the following prices:

**OPTION #1 - LUMP SUM BASE BID SCHEDULE – 240 Day Completion**

<i><b>Bid Item</b></i>	<i><b>Lump Sum Bid Price</b></i>
General Construction	\$
Site Work	\$
Plumbing Work	\$
Mechanical Work	\$
Electrical Work	\$
Fire Alarm System	\$
Allowance	\$ 20,000.00
<b><i>TOTAL AMOUNT OF LUMP SUM BASE BID*</i></b>	\$

**Total of Lump Sum Base Bid Price (in words)** \_\_\_\_\_

\*Option #1 is based on a 240 calendar day completion schedule as noted within these documents.

**OPTION #2 - LUMP SUM BASE BID SCHEDULE – September 1, 2015 Completion Date**

<i><b>Bid Item</b></i>	<i><b>Lump Sum Bid Price</b></i>
General Construction	\$
Site Work	\$
Plumbing Work	\$
Mechanical Work	\$
Electrical Work	\$
Fire Alarm System	\$
Allowance	\$ 20,000.00
<b><i>TOTAL AMOUNT OF LUMP SUM BASE BID*</i></b>	\$

**Total of Lump Sum Base Bid Price (in words)** \_\_\_\_\_

\*Option #2 is based on a completion date of September 1, 2015 in lieu of the 240 calendar day completion.

**ALTERNATE BID DEDUCTIONS SCHEDULE**

<b><i>Deduct Bid Item #1</i></b>	<b><i>Deduction from Lump Sum Bid</i></b>
Eliminate new asphalt pavement courses	\$
<b><i>TOTAL AMOUNT OF DEDUCT</i></b>	\$

<b><i>Deduct Bid Item #2</i></b>	<b><i>Deduction from Lump Sum Bid</i></b>
Eliminate quoin brick corners	\$
<b><i>TOTAL AMOUNT OF DEDUCT</i></b>	\$

<b><i>Deduct Bid Item #3</i></b>	<b><i>Deduction from Lump Sum Bid</i></b>
Provide 40-year asphalt shingles with 30# roofing felt in lieu of standing seam metal roof	\$
<b><i>TOTAL AMOUNT OF DEDUCT</i></b>	\$

<b><i>Deduct Bid Item #4</i></b>	<b><i>Deduction from Lump Sum Bid</i></b>
Eliminate ceramic wall tile and add primer with two (2) coats of paint	\$
<b><i>TOTAL AMOUNT OF DEDUCT</i></b>	\$

<b><i>Deduct Bid Item #5</i></b>	<b><i>Deduction from Lump Sum Bid</i></b>
Replaced specified rubber flooring with 24" x 24" x 1/8" resilient flooring	\$
<b><i>TOTAL AMOUNT OF DEDUCT</i></b>	\$

<b><i>Deduct Bid Item #6</i></b>	<b><i>Deduction from Lump Sum Bid</i></b>
Eliminate interconnection of fire alarm system to the existing school and provide a stand-alone system for new building. The fire alarm work is not proprietary to the owner's current fire alarm vendor.	\$
<b><i>TOTAL AMOUNT OF DEDUCT</i></b>	\$

Bidder acknowledges that:

- (1) Each Bid Item Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item.

**ARTICLE 6 – TIME OF COMPLETION**

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **240 calendar days** from Notice to Proceed.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the amount of **\$1,000.00** for every consecutive day after the stated date in the Notice to Proceed and along with any time extension given per a Change Order.

**ARTICLE 7 – ATTACHMENTS TO THIS BID**

- 7.01 The following documents are submitted with and made a condition of this Bid:
  - A. Required Bid Security;
  - B. List of Proposed Subcontractors;
  - C. Valid Certificate of Compliance for Equal Employment Opportunity; and
  - D. Required Bidder Qualification Statement with supporting data.

**ARTICLE 8 – DEFINED TERMS**

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

**ARTICLE 9 – BID SUBMITTAL**

BIDDER: [Indicate correct name of bidding entity]

\_\_\_\_\_

By:

*[Signature]* \_\_\_\_\_

*[Printed name]* \_\_\_\_\_

*(If Bidder is a corporation, a limited liability company, a partnership or a joint venture, attach evidence of authority to sign.)*

Address for giving notices:

\_\_\_\_\_

\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Contact Name and e-mail address: \_\_\_\_\_

\_\_\_\_\_

Bidder's Federal ID No.: \_\_\_\_\_

## STANDING SEAM SHEET METAL ROOFING

07 61 00

### PART ONE - GENERAL

#### 1.01 Requirements Included

- A. Prefinished, prefabricated structural standing seam roof system with continuous interlocking field formed seams.
- B. Coordinate with installation of roofing substructure.
- C. Provide color coordinated hip, gable, and valley flashings, ridge and peak caps, eave and shelf drips, and counterflashings.
- D. Provide clips, fasteners, closures, and sealants as necessary to meet design criteria and ensure weathertight installation.

#### 1.02 System Description

- A. Design Requirements:
  - 1. Provide factory preformed panel system that has been pre-tested and certified by manufacturer to comply with specified requirements under installed conditions.
  - 2. Provide one piece, single length roof panel where possible.
  - 3. Provide continuous interlocking standing seam.
- B. Structural Requirements:
  - 1. Engineer panels for structural properties in accordance with latest edition of American Iron and Steel Institute's "Cold Formed Steel Design Manual."
- C. Substrate Criteria
  - 1. Minimum thickness plywood substrate per plan.

#### 1.03 Submittals

- A. Product Data: Submit manufacturer's specifications, standard detail drawings, and installation instructions.
- B. Shop Drawings:
  - 1. Submit shop drawings indicating thickness and dimensions of parts, fastenings and anchoring methods, details and locations of seams, transitions and other provisions necessary for thermal expansion and contraction.
  - 2. Indicate roof terminations, clearly showing flashings and change of direction caps.
  - 3. Clearly indicate locations of field and factory applied sealant.
  - 4. Show locations and types of hold-down clips and fasteners.
  - 5. Provide plan showing layout of entire roof.

- C. Samples:
  - 1. Submit two samples, 12" long x full width panel showing proposed metal gauge, seam profile, and required finish.
  - 2. Submit standard color samples on metal for Engineer's selection.
- D. Test Reports:
  - 1. Submit test reports prepared by (UL) Underwriters Laboratories, Inc. indicating wind uplift rating of proposed roof system (UL 580 uplift UL Class 90)
  - 2. UL 2218 impact Class Y
  - 3. Metal Construction Associates (MCA) Certified
- E. Certification:
  - 1. Submit manufacturer's certification that materials and finishes meet specification requirements.
- F. Applicator's and Manufacturer's Experience Records:
  - 1. Submit list of completed projects and name of Engineer.

#### **1.04 Quality Assurance**

- A. Manufacturer's Qualifications:
  - 1. Five year's minimum experience in factory fabrication of standing seam roofs.
  - 2. All roof panels shall be roll formed at the manufacturer's prime manufacturing location.
- B. Regulatory Requirements:
  - 1. Comply with requirements of applicable building codes and other agencies having jurisdiction of wind uplift rating of standing seam roofs.

#### **1.05 Delivery, Storage and Handling**

- A. Protect products and accessories from damage and discoloration during transit and at project site. Store sheets and components in dry storage area to prevent condensation.
- B. Do not overload roof structure with stored materials. Do not permit material storage or traffic on completed roof surfaces.

#### **1.06 Guarantee and Warranty**

- A. Furnish manufacturer's minimum 30-year limited warranty stating fluorocarbon finish will be:
  - 1. Free of fading or color change in excess of 5 NBS units as measured per ASTM D 2244-68;

2. Will not chalk in excess of numerical rating of 7 when measured in accordance with standard procedures specified in ASTM D 659-74;
  3. Will not peel, crack, chip, or delaminate.
- B. Furnish written warranty signed by roof installer for two year full labor and materials warranty period from date of substantial completion of building covering repairs required to maintain roof and flashings in watertight conditions.

### **1.07 Acceptable Manufacturer's**

- A. Union Corrugating Company SL 175 Snap Lock Standing Seam on plywood substrate
- B. ABC LokSeam by American Building Components
- C. Approved equal

## **PART TWO - PRODUCTS**

### **2.01 Products and Manufacture**

- A. Panels:
1. Fabricate panels with minimum 26 gauge, Kynar 500 finish.
  2. Factory fabricate panel with integral continuous interlocking standing seams.
  3. Seam size of 1 3/4" integral snap-lock panel is acceptable.
  4. Provide high grade elastomeric sealant on bottom edge of female seam leg, designed to seal against adjacent male panel leg in accordance with the chosen manufacturer's instructions.
  5. Provide factory formed panel width of 1 3/4" high x 3/8" wide standing seam.
  6. Provide panels in full length from ridge to eave.
  7. Engineer panels to use concealed anchors that permit expansion and contraction.
  8. 16" coverage width panel.
- B. Seams:
1. Panel seams shall interlock entire length of seam.
  2. Engineer standing seam to lock up and resist joint disengagement during design wind uplift conditions as calculated according to local building codes.
  3. Fabricate female leg with pressure equalized capillary break to prevent water siphoning through joints.
  4. Provide factory sealant on leading edge of female seam leg to aid in resistance of leaks and to provide panel-to-panel seal while allowing expansion and contraction movement.
- C. Clips:
1. Provide UL listed clip designed to allow panels to thermally expand and contract.
  2. Fabricate clips with embossments that raise underside of panels above substrate to allow underside ventilation.

3. Fabricate clips with structurally embossed outstanding legs to prevent distortion due to wind uplift forces.
- D. Finish
1. Fluorocarbon Coating:
    - a. Full strength 70% Kynar 500® coating baked on to a nominal dry-film thickness of 1.0 mil.
    - b. 0.3 mil baked on primer.
    - c. Color: As selected by Owner or Engineer from manufacturer's standard.

## **2.02 Materials**

- A. Clip/Fastener Assemblies:
1. Standard Fasteners: Same as UL 90 fasteners specified above.
  2. Nailable Substrate Fasteners: #10 - 12 x 1" long A-Point fastener, pancake head Phillips drive screws for plywood; noncorrosive base material.
  3. Clip shall be designed to meet positive and negative pressures as calculated per local building code.
- B. Accessories:
1. Provide manufacturer's standard accessories and other items essential to completeness of standing seam roof installation.
  2. Provide nylon seam end plugs for clean termination of panel.
  3. Provide factory fabricated rib covers at roof slope transitions.
- C. Felt Underlayment (solid substrate) 30#, asphalt saturated fiberglass felt, nonperforated. Install second layer over drip edge in accordance with manufacturer's written installation instructions.

## **PART THREE – EXECUTION**

### **3.01 Examination**

- A. Substrate:
1. Examine substrate to ensure it is properly secured and prepared to receive metal roofing.
  2. Ensure substrate is installed flat, free from objectionable warp, wave, and buckle.
  3. Do not proceed with installation until unsatisfactory conditions have been corrected.

### **3.02 Preparation**

- A. Felt Underlayment (solid substrate):
1. Provide one layer of 30# felt with horizontal overlaps and end laps staggered between layers or as required by selected metal roof manufacturer.

2. Lay parallel to ridgeline with 2 1/2" horizontal laps and 6" vertical laps.
3. Install second layer per manufacturer's written installation instructions.

### **3.03 Installation**

- A. Comply with manufacturer's instructions for assembly, installation, and erection in order to achieve weathertight installation. Install in accordance with approved shop drawings.
- B. Standing Seam System:
  1. Install panels in accordance with manufacturer's instructions and recommendations.
  2. Anchor securely in place using clips and fasteners spaced in accordance with manufacturer's recommendations for design wind load criteria.
  3. Fully seat adjacent panel to achieve continuous engagement of standing seam joint.
- C. Dissimilar Metals:
  1. Where sheet metal is in contact with dissimilar metals, execute juncture to facilitate drainage and minimize possibility of galvanic action.
  2. At point of contact with dissimilar metal, coat metal with protective paint or tape which can be placed between metals.
- D. Field apply sealant to penetrations, transitions, and other locations necessary for airtight, waterproof installation.

### **3.04 Cleaning**

- A. Clean exposed surfaces of work promptly after completion of installation.

### **3.05 Protection**

- A. Protect work as required to ensure roofing will be without damage at time of final completion.

End of Section

**GYPSUM BOARD**  
**09 29 00**

**PART ONE – GENERAL**

**1.01 Scope of Work**

- A. Provide gypsum board sheets on all walls, partitions, and ceilings where indicated on the plans. Work shall include:
  - 1. Non-load-bearing steel framing members.
  - 2. Gypsum board.
  - 3. Moisture resistant gypsum board.
  - 4. Reinforcement, both metal and wood, within framing systems to support wall and ceiling mounted furnishings or equipment provided by other trades.
  - 5. Joint compounds, tape, drywall textures, drywall accessories.

**1.02 Definitions**

Gypsum Board Construction Terminology: Refer to ASTM C II and GA-505 for definitions of terms related to gypsum board assemblies not defined in this Section or in other referenced standards.

**1.03 Submittals**

- A. General: Submit the following in accordance with the specifications.
- B. Product data for each type of product specified.
- C. Product certificates signed by manufacturers of gypsum board assembly components certifying that their products comply with specified requirements.

**1.04 Quality Assurance**

- A. Materials or operations specified by reference to the published specifications of a manufacturer or other published standards shall comply with the requirements of the standards listed.
  - 1. Standards include ASTM C840 and GA216.
- B. Refer to "Recommended Specification on Levels of Gypsum Board Finish" as published by the Gypsum Association (and AWCI/CISCA/PDCA) for finish levels required herein.
- C. Fire-Test-Response Characteristics: Where fire-rated gypsum board assemblies are indicated, provide materials and construction identical to those of assemblies tested for fire resistance per ASTM E 119 by an independent testing and inspecting agency inspecting agency acceptable to authorities having jurisdiction.

1. Fire Resistance Ratings: As indicated by reference to GA File Numbers in GA-600 "Fire Resistance Design Manual" or to design designations in UL "Fire Resistance Directory," or in the listing of another testing and inspecting agency acceptable to authorities having jurisdiction.
- D. Maintain Single-Source Responsibility for Steel Framing, Panel Products, Finishing Materials and Accessories: Obtain steel framing members, panel products, finishing materials, and accessories for gypsum board assemblies from a single manufacturer.

#### **1.05 Delivery, Storage, and Handling**

- A. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.
- B. Store materials flat, inside, under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes. Neatly stack gypsum panels flat to prevent sagging.
- C. Handle gypsum board to prevent damage to edges, ends, and surfaces. Do not bend or otherwise damage metal corner beads and trim.

#### **1.06 Project Conditions**

- A. Environmental Conditions: Establish and maintain environmental conditions for applying and finishing gypsum board to comply with ASTM C 840 and with gypsum board manufacturer's recommendations.
- B. Room Temperatures: For non-adhesive attachment of gypsum board to framing, maintain not less than 40 deg F (4 deg C). For adhesive attachment and finishing of gypsum board, maintain not less than 50 deg F (10 deg C) for 48 hours prior to application and continuously after until dry. Do not exceed 95 deg F (35 deg C) when using temporary heat sources.
- C. Ventilation: Ventilate building spaces, as required, for drying joint treatment materials. Avoid drafts during hot dry weather to prevent finishing materials from drying too rapidly.
- D. Maintain adequate job site lighting; whenever possible, permanent lighting shall be utilized.
- E. All drywall joint compounds shall be dry prior to the application of drywall textures, paints, and coatings.

## **PART TWO - PRODUCTS**

### **2.01 Acceptable Manufacturers**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Gypsum Board and Related Products:
    - a. Domtar Gypsum.
    - b. Georgia-Pacific Corp.
    - c. Gold Bond Building Products Div., National Gypsum Co.
    - d. Genstar Building Materials Co.
    - e. National Gypsum Company.
    - f. USG

### **2.02 Gypsum Board Products**

- A. Provide gypsum board of types indicated in maximum lengths available to minimize end-to-end butt joints.
  - 1. Thickness: Provide gypsum board 5/8 inch thick to comply with ASTM C 840 for application system and support spacing indicated.
- B. Gypsum Wallboard: ASTM C 36 and as follows:
  - 1. Type: Regular for vertical surfaces, unless otherwise indicated.
  - 2. Edges: Tapered.
  - 3. Thickness: Per plan.
- C. Moisture Resistant Gypsum Board: "MR Board" by National Gypsum Company, Charlotte, North Carolina. Thickness per plan.

### **2.03 Trim Accessories**

- A. Accessories for Interior Installation: Corner beads, edge trim, and control joints complying with ASTM C 1047 and requirements indicated below:
  - 1. Material: Formed metal, complying with the following requirement:
    - a. Sheet steel zinc-coated by hot-dip process.
  - 2. Shapes indicated below by reference to Fig. 1 designations in ASTM C 1047:
    - a. Corner bead on outside corners, unless otherwise indicated.
    - b. LC-bead with both face and back flanges; face flange formed to receive joint compound. Use LC-beads for edge trim unless otherwise indicated.

- c. L-bead with face flange only, face flange formed to receive joint compound. Use L-bead where indicated.
- d. U-bead with face and back flanges; face flange formed to be left without application of joint compound. Use U-bead where indicated.
- e. One-piece control joint formed with V-shaped slot, with removable strip covering slot opening.

#### **2.04 Joint Treatment Materials**

- A. Provide joint treatment materials complying with ASTM C 475 and the recommendations of both the manufacturers of sheet products and of joint treatment materials for each application indicated.
- B. Joint Tape for Gypsum Board: Paper reinforcing tape, unless otherwise indicated.
- C. Setting-Type Joint Compounds for Gypsum Board: Factory-packaged, job-mixed, chemical-hardening powder products formulated for uses indicated.
  - 1. Where setting-type joint compounds are indicated as a taping compound only or for taping and filling only, use formulation that is compatible with other joint compounds applied over it.
  - 2. For prefilling gypsum board joints, use formulation recommended by gypsum board manufacturer for this purpose.
  - 3. For filling joints and treating fasteners of water-resistant gypsum backing board behind base for ceramic tile, use formulation recommended by the gypsum board manufacturer for this purpose.
  - 4. For topping compound, use sandable formulation.

#### **2.05 Miscellaneous Materials**

- A. Provide auxiliary materials for gypsum board construction that comply with referenced standards and recommendations of gypsum board manufacturer.
- B. Steel drill screws complying with ASTM C 1002 for the following applications:
  - 1. Fastening gypsum board to steel members less than 0.03 inch thick.
  - 2. Fastening gypsum board to gypsum board.
- C. Steel drill screws complying, with ASTM C 954 for fastening gypsum board to steel members from 0.033 to 0.1 12 inch thick.
- D. Corrosion-resistant-coated steel drill screws of size and type recommended by board manufacturer for fastening cementitious backer units.

## **PART THREE - EXECUTION**

### **3.01 Examination**

Examine substrates to which gypsum board assemblies attach or abut, installed hollow, metal frames, cast-in-anchors, and structural framing with Installer present for compliance with requirements for installation tolerances and other conditions affecting performance of assemblies specified in this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

### **3.02 Preparation**

- A. Ceiling Anchorages: Coordinate installation of ceiling suspension systems with installation of overhead structural assemblies to ensure that inserts and other provisions for anchorages to building structure have been installed to receive ceiling hangers that will develop their full strength and at spacing required to support ceilings.
  - 1. Furnish concrete inserts and other devices indicated to other trades for installation well in advance of time needed for coordination with other construction.

### **3.03 Applying and Finishing Gypsum Board, General**

- A. Gypsum Board Application and Finishing Standards: Install and finish gypsum panels to comply with ASTM C 840 and GA-216.
- B. Install ceiling board panels across framing to minimize the number of abutting end joints and avoid abutting end joints in the central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install wall/partition board panels to minimize the number of abutting end joints or avoid them entirely. Stagger abutting end joints not less than one framing member in alternate courses of board. At stairwells and other high walls, install panels horizontally with end abutting joints over studs and staggered.
- D. Install gypsum panels with face side out. Do not install imperfect, damaged, or damp panels. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- E. Locate both edge or end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Position adjoining panels so that tapered edges abut tapered edges, and field-cut edges abut field-cut edges and ends. Do not place tapered edges against cut edges or ends. Stagger vertical joints over different studs on opposite sides of partitions. Avoid joints at corners of framed openings where possible.
- F. Attach gypsum panels to steel studs so that the leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

- G. Attach gypsum panels to framing provided at openings and cutouts.
- H. Do not attach gypsum panels across the flat grain of wide-dimension lumber including floor joists and headers. Instead, float gypsum panels over these members using resilient channels or provide control joints to counteract wood shrinkage.
- I. Spot grout hollow, metal door frames for solid core wood doors, hollow metal doors, and doors over 32 inches wide. Apply spot grout at each jamb anchor clip and immediately insert gypsum panels into frames.
- J. Form control joints and expansion joints at locations indicated and as detailed, with space between edges of adjoining gypsum panels, as well as supporting framing behind gypsum panels. Provide vertical control joints spread not more than 30 feet on center in partitions.
  - 1. Control Joint: Apply over face of gypsum board where specified. Cut to length with a fine-toothed hacksaw (32 teeth per inch). Cut end joints square, butt together and align to provide neat fit. Attach control joint to gypsum board with fasteners spaced 6 inches o.c. maximum along each flange. Remove plastic tape after finishing with joint compound or veneer finish.
    - a. Leave a 1/2 inch continuous opening between gypsum boards for insertion of surface-mounted joint.
    - b. Interrupt wood floor and ceiling plates with a 1/2 inch gap, wherever there is a control joint in the structure.
    - c. Do not attach gypsum board to steel studs on one side of control joint.
    - d. Provide separate supports for each control joint flange.
- K. Cover both faces of steel stud partition framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chase walls that are braced internally.
  - 1. Except where concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
  - 2. Fit gypsum panels around ducts, pipes, and conduits.
  - 3. Where partitions intersect open concrete coffer, concrete joists, and other structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by coffer, joists, and other structural members; allow 1/4-to- 1/2-inch-wide joints to install sealant.
- L. Isolate perimeter of non-load-bearing gypsum board partitions at structural abutments, except floors, as detailed. Provide 1/4-inch to 1/2-inch-wide spaces at these locations and trim edges with U-bead edge trim where edges of gypsum panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- M. Space fasteners in gypsum panels according to referenced gypsum board application and finishing standard and manufacturer's recommendations.

### 3.04 Gypsum Board Application Methods

- A. Single-Layer Application: Install gypsum wallboard panels as follows:
  - 1. On ceilings, apply gypsum panels prior to wall/partition board application to the greatest extent possible and at right angles to framing, unless otherwise indicated.
  - 2. On partitions/walls, apply gypsum panels horizontally (perpendicular to framing) unless parallel application is required for fire-resistive-rated assemblies. Use maximum-length panels to minimize end joints.
- B. Single-Layer Fastening Methods: Apply gypsum panels to supports as follows:
  - 1. Fasten with screws.

### 3.05 Installing Trim Accessories

- A. General: For trim accessories with back flanges, fasten to framing with the same fasteners used to fasten gypsum board. Otherwise, fasten trim accessories according to accessory manufacturer's directions for type, length, and spacing of fasteners.
- B. Install corner beads at external corners.
- C. Install edge trim where edge of gypsum panels would otherwise be exposed or semi exposed. Provide edge trim type with face flange formed to receive joint compound except where other types are indicated.
  - 1. Install LC-bead where gypsum panels are tightly abutted to other construction and back flange can be attached to framing or supporting substrate.
  - 2. Install L-bead where edge trims can only be installed after gypsum panels are installed.
  - 3. Install U-bead where indicated.
- D. Install control joints at locations indicated, and where not indicated according to ASTM C 840, and in locations approved by Architect for visual effect.
- E. Accessories are to be installed by screw attachment only; staple or "crimping tool" is not allowed.

### 3.06 Finishing Gypsum Board Assemblies

- A. Apply joint treatment at gypsum board joints (both directions); flanges of corner bead, edge trim, and control joints; penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration and levels of gypsum board finish indicated.
- B. Prefill open joints, rounded or beveled edges, and damaged areas using setting-type joint compound.

- C. Apply joint tape over gypsum board joints and to trim accessories with concealed face flanges as recommended by trim accessory manufacturer and as required to prevent cracks from developing in joint compound at flange edges.
- D. Levels of Gypsum Board Finish: Provide the following levels of gypsum board finish per GA-214.
  - 1. Level 0: No taping, finishing, or accessories required. This level of finish shall be used in temporary construction only.
  - 2. Level 1: Joints and interior angles shall have tape embedded in joint compound. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable. This finish level shall be used in plenum areas above ceilings, in attics, in areas where the assembly is concealed.
  - 3. Level 2: Joints and interior angles shall have tape embedded in joint compound and one separate coat of joint compound applied over joints, angles, fastener heads, and accessories. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable. This finish level shall be used where water resistant gypsum backing board (ASTM C630) is used as a substrate for tile only.
  - 4. Level 3: Joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound over joints, angles, fastener heads, and accessories. Joint compound shall be smooth and free of tool marks and ridges. Note: It is recommended that the prepared surface be coated with a primer/sealer prior to the application of final finishes. See painting/wall covering specification in this regard. This final level shall be used in areas which are to receive heavy textured, thick (1/8 inch or greater) wall coverings.
  - 5. Level 4: Joints and interior angles shall have tape embedded in joint compound and three separate coats of joint compound applied over joints, angles, fastener heads, and accessories. Joint compound shall be smooth and free of tool marks and ridges. Note: Prepare surface to be coated with a primer/sealer prior to the application of final finishes. This finish level shall be used where textured finishes, wall coverings, and painted finishes are to be applied.

### **3.07 Cleaning and Protection**

- A. Promptly remove any residual joint compound from adjacent surfaces.
- B. Provide final protection and maintain conditions, in a manner suitable to Installer that ensures gypsum board assemblies remain without damage or deterioration at time of Substantial Completion.

End of Section

## **FLUSH WOOD DOORS**

**08 14 16**

### **PART ONE - GENERAL**

#### **1.01 Description**

The Contractor shall provide all labor, materials, tools, and equipment required to furnish and install in good workmanlike manner all solid core doors with wood veneer faces and frames complete as shown on the drawings. The Contractor shall verify the dimensions and quantities at the building and be responsible therefore. All wood doors shall be obtained from a single manufacturer.

#### **1.02 Shop Drawings**

- A. The door manufacturer shall provide shop drawings for all doors and frames, including factory preparation for hardware. The Contractor shall verify all dimensions and quantities at the building and be responsible therefore. The engineer shall review the shop drawings for conformance with the specifications.
- B. Submit in accordance with Submittal Procedures 01 33 00.
- C. Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
  - 1. Indicate elevations of each door type location, size, fire rating, swing undercuts, stile and rail reinforcement, internal blocking for hardware attachment, and cut-outs for glazing/louvers.
  - 2. Indicate dimensions and locations of mortises and holes for hardware.
  - 3. Indicate dimensions and locations of cut-outs.
  - 4. Indicate fire-protection ratings for fire-rated doors and frames.
  - 5. Indicate large scale drawing of veneer layout.
  - 6. Note each frame condition.
  - 7. Designate the work to be provided by other trades and coordinate.

#### **1.03 Test Reports and Compliances**

- A. All fire doors shall bear the UL or FM labels and shall have been investigated and tested in accordance with UL 10 (b), ASTM E-152, NFPA 252, and ANSI as. 2. A physical label shall be affixed to all Underwriters Laboratories and Factory Mutual fire doors and frames. The labels shall be as per the hour rating in the door schedule on the drawings.
- B. AWI – Quality Standards of the Architectural Woodwork Institute

#### **1.04 Quality Assurance**

- A. NWWDA Quality Standard 1.S.1 “Industry Standards for Wood Flush Doors” of natural wood windows.
- B. AWI Quality Standard: “Architectural Woodworking Quality Standards” for grade of door, core construction, finish, and other requirements exceeding those of NWWDA Quality Standard.

### **1.05 Product Delivery Storage and Handling**

- A. Protect doors upon job site arrival from damage or deterioration. Comply with recommendation of NWWDA pamphlet “How to Store, Handle, Finish, Install and Maintain Wood Doors.”
- B. Follow the manufacturer’s written instructions.

### **1.06 Warranty**

- A. Special Warranty: Manufacturer’s standard form in which manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period. Warranty for doors to be a minimum of 10 years.
  - 1. Failures include, but are not limited to the following:
    - a. Warping (bow, cup, or twist) more than ¼ inch in a 42 by 84 inch section.
    - b. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span.
  - 2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.

## **PART TWO - MATERIALS**

### **2.01 Wood Doors**

Doors shall be solid core, full flush design of sizes called for on the drawings, AWI Type PC-5. Faces shall be red oak. Solid 5/8” thick edge strips to match face veneer and the standard product of a recognized manufacturer. Face panels shall be the manufacturers 2 ply hot pressed panels with Type I glue. Doors shall be reinforced to receive door closures, lock sets, etc. Provide labeled fire door frame where called for on the drawings.

### **2.02 Frames**

Frames shall be of the size and type shown on the drawings. Coordinate with the metal frame supplier the locations of hardware mortises in metal frames to verify dimensions and alignment before machining in factory.

All frames shall receive one shop coat of baked-on metallic rust inhibitive primer before shipment.

### **2.03 Fabrication**

- A. Factory prefit and premachine doors to fit and comply with AWI requirements and tolerances of AWI.
- B. Comply with final hardware schedules and door frames shop drawings and with hardware templates.
- C. Coordinate measurements of hardware mortises in metal frames to verify dimension and alignment before proceeding with factory premachining.
- D. Cut and trim openings through doors to comply with applicable requirements for referenced standards of kind of doors required.

### **2.04 Fire Rated Doors**

UL labeled fire doors and frames shall be of a type which has been investigated and tested in accordance with UL, ASTM, NFPA and ANSI requirements. All fire rated doors and frames shall have Underwriters Laboratories Classified Fire Doors label affixed on them. Hour rating shall be as per door schedule on the drawings.

## **PART THREE - EXECUTION**

### **3.01 Product Handling**

- A. Delivery: (1) Provide temporary steel spreaders fastened across bottom of unit frames. (2) Label each item, before shipping, with metal or plastic tags to show their location, size, door swing, and other pertinent information. (3) Properly crate or box all materials to assure protection during shipping, handling, and job storage.
- B. Storage: Materials shall be stored at the site in a fully covered and dry room, off ground, and carefully stacked in a vertical position in a manner to avoid racking or other damage.
- C. The Contractor shall warrant and guarantee that all work executed under this Division will be free from defects of materials and workmanship for a period of one year from the date of final acceptance of this work.

### **3.02 Placement**

- A. Installation: Frames - set in position, plumb, align and brace securely until permanent anchor set. Anchor bottom of frames to floors with expansion bolts, or with power fasteners. Build wall anchors into walls or secure to adjoining construction as indicated or specified. Where frames require ceiling struts or other structural overhead bracing, anchor securely to ceilings or structural framing above, as indicated and/or specified.
- B. Doors - hang plumb and true to accurate fit. Use only skilled, experienced mechanics.
- C. Finish Hardware - install all applicable hardware furnished under this and other sections. Use only skilled experienced mechanics.

D. Adjusting - adjust all doors to proper swing. Leave in perfect operating condition.

E. Wood doors having the following defects will not be accepted:

1. Not operating properly, such as swinging, sliding, latching, etc.
2. Damaged face or edge.
3. Unsealed edges, tops, or bottoms.
4. Irregularities of surface finish such as roughness, skips, or rums.
5. Blemishes in color or gloss.

Defective materials shall be rejected and replaced with new materials at no additional cost to the Owner.

F. Cleaning - remove all protective masking and clean surfaces, leaving them free from soil and imperfections.

### **3.03 Acceptable Manufacturers**

Weyerhaeuser Door Division, Mohawk Flush Doors, Inc. or Algoma Hardwoods, Inc.

End of Section

# DOOR SCHEDULE

MARK	DOOR INFORMATION			NOTES	DOOR INFORMATION		HARDWARE SET	FRAME MATERIAL	REMARKS
	WIDTH	HEIGHT	THICKNESS		MATERIAL	TYPE			
1	(2) 3'-0"	7'-0"	1 3/4"	1,3,6	ALUMINUM	A	1 Exterior	ALUMINUM	STORE FRONT WITH STATIONARY CENTER MULLION
2	(2) 3'-0"	7'-0"	1 3/4"	1,3,6	ALUMINUM	A	1 Exterior	ALUMINUM	STORE FRONT WITH STATIONARY CENTER MULLION
3	3'-0"	7'-0"	2"	1,4	PTD. GALVANIZED METAL	F	4 Exterior	PTD. GALV. METAL FRAME	
4	3'-0"	7'-0"	2"	1,4	PTD. GALVANIZED METAL	F	4 Exterior	PTD. GALV. METAL FRAME	
5	3'-0"	7'-0"	2"	1,4	PTD. GALVANIZED METAL	F	4 Exterior	PTD. GALV. METAL FRAME	
6	2'-4"	6'-8"	1 3/4"	1,2,5	WOOD	B	3 Interior	PTD. METAL FRAME	SOLID CORE OAK VENEER 5' HIGH DOOR
7	2'-4"	6'-8"	1 3/4"	1,2,5	WOOD	B	3 Interior	PTD. METAL FRAME	SOLID CORE OAK VENEER 5' HIGH DOOR
8	3'-0"	7'-0"	1 3/4"	1,5	WOOD	C	2 Interior	PTD. METAL FRAME	SOLID CORE O.V. WITH TEMPERED 1/2 GLASS
9	3'-0"	7'-0"	1 3/4"	1,5	WOOD	D	5 Interior	PTD. METAL FRAME	MECHANICAL ROOM AND STORAGE DOORS
10	3'-0"	7'-0"	1 3/4"	1,5	WOOD	C	2 Interior	PTD. METAL FRAME	SOLID CORE O.V. WITH TEMPERED 1/2 GLASS
11	3'-0"	7'-0"	1 3/4"	1,5	WOOD	E	5 Interior	PTD. METAL FRAME	SOLID CORE O.V. WITH TEMPERED 1/2 GLASS
12	3'-0"	7'-0"	1 3/4"	1,5	WOOD	D	5 Interior	PTD. METAL FRAME	SOLID CORE RESTROOM DOOR O.V.
13	3'-0"	7'-0"	1 3/4"	1,5	WOOD	D	5 Interior	PTD. METAL FRAME	MECHANICAL ROOM AND STORAGE DOORS
14	3'-0"	7'-0"	1 3/4"	1,5	WOOD	D	5 Interior	PTD. METAL FRAME	MECHANICAL ROOM AND STORAGE DOORS
15	3'-0"	7'-0"	1 3/4"	1,5	WOOD	C	2 Interior	PTD. METAL FRAME	MECHANICAL ROOM AND STORAGE DOORS
16	2'-4"	6'-8"	1 3/4"	1,2,5	WOOD	B	3 Interior	PTD. METAL FRAME	SOLID CORE O.V. WITH TEMPERED 1/2 GLASS
17	2'-4"	6'-8"	1 3/4"	1,2,5	WOOD	B	3 Interior	PTD. METAL FRAME	SOLID CORE OAK VENEER 5' HIGH DOOR
18	2'-4"	6'-8"	1 3/4"	1,2,5	WOOD	B	3 Interior	PTD. METAL FRAME	SOLID CORE OAK VENEER 5' HIGH DOOR
19	2'-4"	6'-8"	1 3/4"	1,2,5	WOOD	B	3 Interior	PTD. METAL FRAME	SOLID CORE OAK VENEER 5' HIGH DOOR