SECTION 06 1643

GYPSUM SHEATHING

PART 1 GENERAL

1.1 SUMMARY

A. Work of this Section consists of gypsum sheathing, and includes but is not limited to the following:

1. Glass-mat gypsum wall sheathing and soffit.

B. Related Documents and Sections: Examine Contract Documents for requirements that directly affect or are affected by Work of this Section. Other Documents and Sections that directly relate to work of this Section include, but are not limited to:

1. General provisions of the Contract, including General and Supplementary Conditions, and Division 01 General Requirements Specification Sections.
2. Section 05 4000 - COLD-FORMED METAL FRAMING.
3. Section 07 2726 - FLUID-APPLIED MEMBRANE AIR BARRIERS.

1.2 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

B. Test Reports: Submit certified test results by a recognized testing laboratory in accordance with specified test methods for each product and/or system indicating physical, chemical and performance characteristics.

C. Certificates: Submit with manufacturer’s signature certifying that each product and/or system meets the requirements of the performance characteristics, physical criteria, and applicable standards specified.

1.3 QUALITY ASSURANCE

A. Fire-Test-Response Characteristics: For assemblies with fire-resistance ratings, provide materials and construction identical to those of assemblies tested for fire resistance per ASTM E119 by a testing and inspecting agency acceptable to authorities having jurisdiction.

1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory."

1.4 DELIVERY, STORAGE, AND HANDLING

A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 PRODUCTS

2.1 GLASS-MAT GYPSUM SHEATHING

A. Glass-Mat Gypsum Wall Sheathing: ASTM C1177 / C1177M.

1. Basis-of-Design Manufacturer / Product: "Dens-Glass Gold" by G-P Gypsum Corporation.

2. Type and Thickness: Type X, 5/8 inch thick.
3. Size: 48 by 120 inches for vertical installation.

2.2 GLASS-MAT GYPSUM SOFFIT BOARD

A. Exterior Gypsum Soffit Board: ASTM C 931/C 931M or ASTM C 1396/C 1396M, with manufacturer's standard edges.

1. Basis-of-Design Manufacturer / Product: Georgia-Pacific Corporation, “ToughRock.”
   a. Type "X"
   b. Thickness: 5/8 inch standard.
   c. Edges: Tapered.

2.3 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.

1. For wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A153 or made from Type 304 stainless steel.

B. Power-Driven Fasteners: NES NER-272.

C. Screws for Fastening Sheathing to Cold-Formed Metal Framing: Steel drill screws, in length recommended by sheathing manufacturer for thickness of sheathing board to be attached, with organic-polymer or other corrosion-protective coating having a salt-spray resistance of more than 800 hours according to ASTM B117.

1. For steel framing less than 0.0329 inch thick, attach sheathing to comply with ASTM C1002.
2. For steel framing from 0.033 to 0.112 inch thick, attach sheathing to comply with ASTM C954.

2.4 MISCELLANEOUS MATERIALS

A. Self-Adhering Seam and Flashing Tape: Pressure-sensitive, self-adhering, cold-applied, proprietary seam tape consisting of polyolefin film with acrylic adhesive.

1. Thickness: 0.012 inch (0.3 mm).
2. Width: 3.75 inch.
3. Code Compliance: Comply with requirements of authorities having jurisdiction and ICC Evaluation Service, Inc. "AC148 - Acceptance Criteria for Flexible Flashing Materials."

B. Liquid-Applied Flashing Membrane: Gun-grade, cold-applied, silyl-terminated polyether (STPE) liquid flashing membrane compatible with sheathing/weather barrier and self-adhering seam and flashing tape, and tested as part of an assembly meeting performance requirements.

1. Hardness, Shore A, ASTM C 661: 40 to 45
2. Total Solids: 99 percent
3. Tensile Strength, ASTM D412: 75 psi (517 kPa)

2.5 ACCESSORIES

A. Soffit Joint Compound: Georgia-Pacific Toughrock 90, setting type joint compound, or accepted equivalent.

B. Exterior Trim: ASTM C 1047, Rolled zinc.

1. Furnish shapes as required for complete installation.

PART 3 EXECUTION

3.1 SURFACE CONDITIONS

A. Inspection:

1. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
2. Verify that sheathing work may be performed in strict accordance with the original design an all pertinent codes and regulations.

B. Discrepancies:

1. In the event of discrepancy, immediately notify the Architect.
2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.2 INSTALLATION, GENERAL

A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction, unless otherwise indicated.

C. Securely attach to substrate by fastening as indicated, complying with requirements of authorities having jurisdiction.

D. Coordinate sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.

E. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.

F. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

3.3 GYPSUM SHEATHING INSTALLATION

A. Comply with GA-253 and with manufacturer's written instructions.

1. Fasten gypsum sheathing to cold-formed metal framing with screws.
2. Install boards with a 3/8 inch gap where non-load-bearing construction abuts structural elements.
3. Install boards with a 1/4 inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.

B. Apply fasteners so heads bear tightly against face of sheathing boards but do not cut into facing.

C. Vertical Installation: Install board vertical edges centered over studs. Abut ends and edges of each board with those of adjacent boards. Attach boards at perimeter and within field of board to each

stud.

1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.
2. For sheathing under stucco cladding, boards may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.

3.4 GYPSUM SOFFIT INSTALLATION

A. Soffit Installation: Abut ends of boards over centers of studs, and stagger end joints of adjacent boards not less than one stud spacing. Attach boards at perimeter and within field of board to each steel stud.

1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.

B. Finishing:

1. Comply with GA-253 and with manufacturer's written instructions.
2. Abut ends of boards over centers of studs, and stagger end joints of adjacent boards not less than one stud spacing. Attach boards at perimeter and within field of board to each steel stud.
3. Control joints are required a minimum of every 30 feet or closer as indicated on Drawings.

END OF SECTION