# PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

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

## 1.2 SUMMARY

A. Section Includes:
1. Wall sheathing.
2. Roof sheathing.
3. Parapet sheathing.
4. Sheathing joint and penetration treatment.

B. Related Requirements:
1. Section 018113 “Sustainable Design Requirements.”
2. Section 061053 "Miscellaneous Carpentry" for plywood backing panels.
3. Section 072100 “Building Insulation” for exterior mineral-wool and foam board insulation.
4. Section 072700 "Air Barriers" for air barrier applied over wall sheathing.
5. Section 073213 “Clay Roof Tiles” for underlayment over roof sheathing.
6. Section 075419 “Polyvinyl-Chloride (PVC) Roofing” for substrate board and insulation under single-ply roofing.

## 1.3 ACTION 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. LEED Submittals: Credits MRc4, MRc5 and EQc4.1. Refer to Section 018113 “Sustainable Design Requirements” for additional submittal requirements.

## 1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer, vendor and testing agency.

## 1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant-treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

1.6 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 PERFORMANCE REQUIREMENTS

A. Fire-Resistance Ratings: As tested according to ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
   1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

B. LEED Materials: Credits MRc4, MRc5 and EQc4.1. Refer to Section 018113 “Sustainable Design Requirements” for additional material requirements.

C. Surface-Burning Characteristics: According to ASTM E 84 or UL 723 when tested as an assembly in the maximum thickness intended for use; testing by a qualified testing agency acceptable to authorities having jurisdiction, as follows:
   1. Flame-Spread Index: 75 or less.
   2. Smoke-Developed Index: 450 or less.

2.2 WALL SHEATHING

A. Glass-Mat Gypsum Sheathing Board: ASTM C 1177/C 1177M.
   1. Product: Subject to compliance with requirements, provide the following:
      a. "Dens-Glass Fireguard Sheathing" by G-P Gypsum Corporation.
      b. “GlasRoc” by CertainTeed.
      c. “SecureRock” by United States Gypsum Company.
      d. Or Equal.
   2. Type and Thickness:
      a. Type X fire-rated, 5/8 inch thick.

2.3 ROOF SHEATHING

A. Glass-Mat Gypsum Roof Sheathing Board: ASTM C 1177/C 1177M.
   1. Product: Subject to compliance with requirements, provide the following:
      a. DensDeck Fireguard Roof Board by G-P Gypsum Corporation.
      b. GlasRoc Roof Board by CertainTeed.
      c. Or Equal.
   2. Flame Spread and Smoke Development: 0 when tested in accordance with ASTM E84.
   3. Type and Thickness:
      a. Type X fire-rated, 5/8 inch thick.

2.4 PARAPET SHEATHING

A. Pre-Primed Sheathing at Parapets and Walls: At inside face of parapets and at walls scheduled to receive PVC roof membrane, provide 5/8-inch thick, pre-primed, Type-X glass-mat gypsum sheathing in compliance with roofing system tested assembly.
   1. Product: Subject to compliance with requirements, provide the following:
      a. Georgia-Pacific Gypsum LLC; Dens-Deck Prime Fireguard.
      b. Or Equal.
   2. Coordinate with Section 075419 “Thermoplastic Membrane Roofing” assembly requirements.

2.5 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
   1. For parapet and wall sheathing, provide fasteners of Type 304 stainless steel.

B. Screws for Fastening Gypsum Sheathing to Cold-Formed Metal Framing: Steel drill screws, in length recommended by sheathing manufacturer for thickness of sheathing to be attached.
   1. For steel framing less than 0.0329 inch thick, use screws that comply with ASTM C 1002.
   2. For steel framing from 0.033 to 0.112 inch thick, use screws that comply with ASTM C 954.

2.6 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS

A. Sealant for Glass-Mat Gypsum Sheathing: Silicone emulsion sealant complying with ASTM C 834, compatible with sheathing tape and sheathing and recommended by tape and sheathing manufacturers for use with glass-fiber sheathing tape and for covering exposed fasteners.
   1. Sheathing Tape: Self-adhering glass-fiber tape, minimum 2 inches wide, 10 by 10 or 10 by 20 threads/inch, of type recommended by sheathing and tape manufacturers for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing and with a history of successful in-service use.

B. Sheathing joint-and-penetration treatment materials shall be compatible with weather barrier installed over glass-mat gypsum sheathing.

PART 3 - EXECUTION

3.1 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. Arrange joints so that pieces do not span between fewer than three support members.

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 2013 California Code of Regulations Title 24, Part 2 and ICC-ES evaluation report for fastener.

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.

3.2 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 panels with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
   3. Install panels 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, but do not cut into facing.

C. Horizontal Installation: Install sheathing with V-grooved edge down and tongue edge up. Interlock tongue with groove to bring long edges in contact with edges of adjacent panels without forcing. Abut ends over centers of studs, and stagger end joints of adjacent panels not less than one stud spacing. Attach at perimeter and within field of panel 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 panels.
   2. For sheathing under stucco cladding, panels 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.

D. Vertical Installation: Install vertical edges centered over studs. Abut ends and edges with those of adjacent panels. Attach at perimeter and within field of panel 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 panels.
   2. For sheathing under stucco cladding, panels 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.

E. Seal sheathing joints according to sheathing manufacturer's written instructions.
   1. Apply glass-fiber sheathing tape to glass-mat gypsum sheathing joints and apply and trowel sealant to embed entire face of tape in sealant. Apply sealant to exposed fasteners with a trowel so fasteners are completely covered. Seal other penetrations and openings.

END OF SECTION