This section includes sheathing for exterior walls for use in a potentially damp or wet exterior cladding environment. This sheathing section forms an exterior flat plane for the exterior wall framing members. The sheathing forms the exterior skin of the inner "wythe" of a rain screen wall assembly and usually functions as a moisture-resistant backing or as a substrate for a full contact waterproof liquid or sheet membrane. An air space is required by the NBC (for moisture collection and drainage - as well as an air pressure equalizer) prior to installing a weather stop exterior wall finish.

This section includes performance, proprietary and descriptive type specifications; edit text to avoid conflicting requirements.

Part 1 General

1.1 SECTION INCLUDES

In this article, select the components or assemblies that are intended to be part of the content of this section and will not be included in other sections.

.1 Exterior magnesium oxide sheathing for walls.

1.2 RELATED SECTIONS

In this article, indicate those sections that inter-rely on this section. The listing below is only partial and should be edited to include those sections specific to the project that describe subjects or products that affect this section directly.

.1 Section 05 41 00 - Structural Metal Lightweight Framing: Load bearing studs for exterior applications.

.2 Section 06 11 00 - Wood Framing: Building wood framing assembly with openings for windows and doors.

.3 Section 06 10 13 - Wood Blocking and Curbing: Wood blocking for support of [_____].

.4 Section 07 21 16 - Blanket Insulation: Thermal insulation within exterior wall framing.

1.3 REFERENCES

Edit this article after editing the rest of this section. Only list reference standards below, that are included within the text of this section, when edited for a project specification delete other references that do not apply.

.1 International Code Council Evaluation Service Inc. (ICC-ES)

.1 Acceptance Criteria AC386 for Fiber-Reinforced Magnesium-Oxide-Based Sheets.

.2 ASTM C1185-08(2012) - Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards.

.3 ASTM C1186-08(2012) - Standard Specification for Flat Fiber-Cement Sheets.

.4 ASTM C1325-08b - Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units.

.5 ASTM E72-13a - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.

.6 ASTM E84-13a - Standard Test Method for Surface Burning Characteristics of Building Materials.

.7 ASTM E119-12a - Standard Test Methods for Fire Tests of Building Construction and Materials.

.8 ASTM G21-13 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.

.9 UL 263 - Fire Tests of Building Construction and Materials 2011.

1.4 PERFORMANCE REQUIREMENTS

Edit this article carefully; restrict statements to identify assembly or system performance requirements or function criteria only. Delete paragraphs not appropriate to the project. Performance specifying permits system manufacturers the latitude to adjust or redesign proprietary systems to achieve requirements specified in this section.

.1 Surface Burning Characteristics: Classified as non-combustible when tested in accordance with ASTM E84 and E136.

1.5 SUBMITTALS FOR REVIEW

Do not request submittals if this specification section or drawings sufficiently describe the products of this section or if proprietary specifying is used. The following submittals are intended for review to determine eligibility for the project.

.1 Section 01 33 00: Submission procedures.

.2 Product Data: Provide product data on [magnesium oxide sheathing] [metal framing].

.3 Shop Drawings:

.1 Indicate special details associated with [lap and seal to window frame air barrier plane] [sealing penetrations].

.2 Indicate fastener type and spacing to suit framing details.

Use the following paragraph for submission of physical samples for selection of finish, colour, texture, etc.

.4 Samples: Submit [two (2)] samples, [<[_____] mm><<[_____] inches>>] in size.

1.6 SUBMITTALS FOR INFORMATION

The following submittals are for information only; do not request these submittals if the information submitted will be assessed for acceptability.

.1 Section 01 33 00: Submission procedures.

.2 Installation Data: Manufacturer's special installation requirements.

Include the following ONLY if specifying for a LEED project. Specify only the technical requirements necessary to achieve the credits desired for this project.

.3 Sustainable Design:

.1 Section 01 35 18: LEED documentation procedures.

.2 Provide required LEED documentation for Product [recycled content] [regional materials].

.3 Manufacturer's Certificate: Certify that Products meet or exceed [specified requirements].

1.7 CLOSEOUT SUBMITTALS

The following submittals are for project closeout purposes; do not request these submittals if the information submitted will be assessed for acceptability.

.1 Section 01 78 10: Submission procedures.

Include the following ONLY if specifying for a LEED project.

.2 Sustainable Design Closeout Documentation: [_____].

1.8 QUALITY ASSURANCE

This article includes statements that require quality applicable to the whole section.

.1 Perform Work in accordance with manufacturer's written instructions and Technical Bulletin No. 111309-1108. VERIFY TECH BULLETIN REF#

.2 Applicator Qualifications: Company specializing in performing the work of this section with minimum [three (3)] years documented experience [and approved by the manufacturer].

1.9 DELIVERY, STORAGE, AND PROTECTION

.1 Section 01 61 00: Transport, handle, store, and protect products.

.2 Protect materials from warping or other distortion by stacking in flat sheets, off the ground.

.3 Protect stockpiled materials from weather using waterproof tarps.

Part 2 Products

2.1 MANUFACTURERS

This article is for proprietary specifying with one or more manufacturers. Use the first and third paragraphs for specifying a single manufacturer. If specifying a product by reference to a standard only, delete this article. Additional manufacturer's data can be found at http:// www.magnumbp.com .

.1 Magnum Building Products, LLC

.1 10150 Highland Manor Drive, Suite 200

.2 Tampa, Florida

.3 33610

.4 Tel: (813) 314-2202

.5 Fax: (813) 314-2203

.6 Web: www.magnumbp.com

.2 Other acceptable manufacturers offering functionally [and aesthetically] equivalent products.

.1 [_____]; Product: [_____].

.2 [_____]; Product: [_____].

.3 [_____]; Substitutions: [_____].

.3 Substitutions: [Not permitted] [Refer to Section 01 62 00].

2.2 MATERIALS

Include the following paragraphs for magnesium oxide sheathing not specified in other sections such as the roof deck preparation part of relevant sections in Division 07.

Non-fire rated Magnum Board is available in panel thicknesses from 3 mm (1/8 inch) to 25 mm (1 inch) and 1220 mm (4 feet) width x 2440 mm, 2745 mm, 3050 mm and 3660 mm (8, 9, 10 and 12 feet) lengths.

Fire rated Magnum Board is only available in 12 mm (15/32 inch) panel thickness and 1220 mm (4 feet) width x 2440 mm, 2745 mm, and 3050 mm (8, 9, and 10 feet) lengths.

.1 Magnesium Oxide Sheathing: Fibre-reinforced homogeneous panel, paperless, moisture resistant; maximum available length in place ends square cut, square edges.

.1 Regular, non-fire rated, [<3 mm><<1/8 inch>>] [<13 mm><<1/2 inch>>] [<16 mm><<5/8 inch>>] [<25 mm><<1 inch>>] [<[_____] mm><<[_____] inch>>] thick.

.2 Fire rated, <12 mm><<15/32 inch>> thick.

2.3 FRAMING MATERIALS

This article is to identify wood or metal framing substrates to which the sheathing is to be applied.

.1 Metal Framing and Accessories: Specified in Section [09 22 13] [09 22 16] [05 41 00].

.2 Wood Framing: Specified in Section [06 11 00] [06 10 13].

2.4 ACCESSORIES

.1 Fastening: Corrosion resistant [self-tapping screws][pneumatic nails][adhesive] as recommended by manufacturer.

Part 3 Execution

3.1 EXAMINATION

.1 Section 01 70 00: Verify existing conditions before starting work.

.2 Verify that site conditions are ready to receive work and opening dimensions are as [instructed by the manufacturer] [indicated on shop drawings].

3.2 SHEATHING INSTALLATION

.1 Install in accordance with manufacturer's written instructions

.2 Coordinate location of openings and through-wall components with other work.

.3 Erect magnesium oxide sheathing [vertically] [horizontally], with edges butted tight and ends occurring over firm bearing.

.4 Use screws when fastening magnesium oxide sheathing to furring or framing.

.5 Treat cut edges and holes in sheathing with sealant.

Control joint spacing in this work should not exceed 10 m (30 ft) for linear work and may also be placed above metal door frames directly above each jamb. Joints constructed of back to back casing beads can be filled with a low modulus sealant capable of flexible joint movement. The following paragraph offers the option to permit site directed placement of control joints.

.6 Place sealable exterior control joints consistent with lines of building spaces [as directed by Consultant] [as indicated on Drawings] [to maximum spacing of [<[_____] m><<[_____] ft>>] [<10 m><<30 ft>>]] . Form joint with back to back casing beads spaced apart to form a flexible sealant joint.

3.3 ERECTION TOLERANCES

Do not assume that there are industry standards for tolerances. Specify tolerances below as appropriate to the nature or character of the project. Verify that such tolerances are realistic and realizable.

.1 Section 01 73 00: Tolerances.

.2 Maximum Variation of Magnesium Oxide Sheathing Surface from True Flatness: [<6 mm in 3 m><<1/4 inch in 10 ft>>] in any direction.

END OF SECTION