

SECTION 09 29 00

GYPSUM BOARD

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Gypsum wall board.
- B. Fire-rated board.
- C. Water-resistant (W/R) backing board.
- D. Joint compound and tape.
- E. Accessories.
- F. Screws.
- G. Sealant.

1.02 RELATED SECTION

- A. Cementitious backer board for ceramic tile is specified in Section 09 30 00, Tiling.

1.03 MEASUREMENT AND PAYMENT

- A. General: Gypsum drywall construction will not be measured separately for payment but will be paid for as part of the Contract lump sum price for Architectural Work.

1.04 DESCRIPTION

- A. When a fire resistance rating is indicated for a gypsum board assembly, details of construction shall be in accordance with reports of fire tests of assemblies which have met the requirements of the indicated fire rating.
- B. When a sound transmission class (STC) rating is indicated for a gypsum board assembly, details of construction shall be in accordance with reports of acoustical tests of assemblies which have met the requirements of the indicated acoustical rating.
- C. Details of construction not specified herein shall conform to applicable requirements of ASTM C840.

1.05 REFERENCES

- A. American Society for Testing and Materials (ASTM):

GYPSUM BOARD

1. ASTM C11 Standard Terminology Relating to Gypsum and Related Building Materials and Systems
2. ASTM C1396/C1396M Standard Specification for Gypsum Board
3. ASTM C475/C475M Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board
4. ASTM C840 Standard Specification for Application and Finishing of Gypsum Board
5. ASTM C954 Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness
6. ASTM C1002 Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
7. ASTM C1047 Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base
8. ASTM C1396/C1396M Standard Specification for Gypsum Board
9. ASTM E596 Standard Test Method of Laboratory Measurement of Noise Reduction of Sound-Isolation Enclosures
10. ASTM E1704 Standard Guide for Specifying Acoustical Performance of Sound-Isolating Enclosures

1.06 REGULATORY REQUIREMENTS

- A. In addition to the foregoing referenced standards, the regulatory requirements which govern the work of this Section include the following governing code:
 1. California Code of Regulations (CCR), Title 24, Part 2, California Building Code, Chapters 25, "Gypsum Board, Gypsum Panel Products and Plaster."

1.07 DEFINITIONS

- A. Words and terms used in this Section and not defined herein shall be interpreted in accordance with the definitions given in ASTM C11.

1.08 QUALITY ASSURANCE

- A. Installation and Finishing: Comply with applicable requirements of the California Building Code, Title 24, Part 2, Chapter 25, and ASTM C840.

- B. Installation of Sound-Retardant Partitions: Comply with applicable requirements of ASTM E596 or ASTM E1704.

1.09 JOBSITE CONDITIONS

- A. Maintain room temperature of not less than 40 degrees Fahrenheit during application of gypsum board, and 50 degrees Fahrenheit during application of joint treatment and for 48 hours thereafter. If temporary heat is provided, do not allow the temperature to exceed 95 degrees Fahrenheit.
- B. Maintain adequate ventilation in the working area during installation and finishing.

1.10 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the site and store them in the work area if possible, so that materials will have a minimum period of 24-hours storage at the same temperature as the installation area.
- B. Store gypsum board in the horizontal position. When necessary to stack palettes, align blocking vertically to avoid distortion of boards.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Board Type and Thickness: Refer to indicated details and notes on the Contract Drawings for type and thickness of board. Where thickness is not indicated, provide 5/8-inch-thick board.
- B. Gypsum Wallboard: ASTM C1396/C1396M, furnished with tapered longitudinal edges and in lengths which will result in a minimum footage of joints.
 - 1. Provide foil-backed gypsum wallboard for interior facing of exterior walls where gypsum wallboard is scheduled for the interior finish and for gypsum wallboard furred over concrete or masonry.
- C. Fire-Rated Board: Provide Type X board for assemblies indicated to have a fire-resistance rating.
- D. Water-Resistant (W/R) Backing Board: ASTM C1396/C1396M, 5/8-inch thick. Provide Type X water-resistant gypsum backing board where water-resistant gypsum board walls and ceilings are indicated to have a fire-resistance rating.
- E. Joint Compound and Tape: ASTM C475/C475M, joint tape, taping compound, and finishing compound. All-purposed compound may be substituted for taping compound and finishing compound.

- F. Accessories: ASTM C1047, galvanized steel. Provide metal corner bead for all external corners and angles and metal edge trim at all junctions of gypsum wallboard and walls of other materials and for all exposed edges.
- G. Screws: ASTM C954 or ASTM C1002, as applicable for type of metal framing, of required lengths.
- H. Sealant: Sealant for holes or penetrations in acoustical and damp-service partitions shall conform to applicable requirements of Section 07 90 00, Joint Protection.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Apply gypsum wallboard in accordance with applicable requirements of ASTM C840.
- B. Before applying gypsum board, verify that corners and framing are plumb, true, and solid. Apply no gypsum board until conduits, boxes, pipes, ducts, vents, supports, fixture frames, blocking and backing, and the like are in place and inspected, tested, and approved as required. All edges and ends of gypsum board shall have solid bearing.
- C. Apply wallboard over metal framing and furring with self-drilling, self-tapping screws installed with an electric screw-gun equipped with adjustable screw depth control. Drive screw heads slightly below the surface of the wallboard, taking care to avoid breaking the paper face or fracturing the gypsum core. Space screws a maximum of 12 inches on center in the field of boards and eight inches on center staggered along the abutting edges for walls, and seven inches on center along abutting edges for ceilings. Do not drive screws closer than 3/8 inch from edges and ends.
- D. Apply wallboard first to ceilings and then to walls, using maximum practical lengths to minimize end joints. End joints will not be permitted on walls or partitions less than 16 feet in height. Wallboard shall be applied vertically to walls. Joints on opposite sides of the same wall or partition shall occur on different studs. Boards shall be installed in moderate contact, not forced in place.
- E. In two-ply gypsum board construction, apply the base ply perpendicular to framing members and the face ply parallel to framing members. Laminate face-ply to base-ply with adhesive or all-purpose compound. Fasten with a sufficient number of screws to hold the board in place until the laminating adhesive or compound has set, but not less than 12-inch spacing on ceilings and 16-inch spacing on walls. Joints in the face ply shall be offset from joints in the base ply by not less than 16 inches.
- F. Provide metal corner bead at all vertical and horizontal external corners and angles. Provide metal edge trim at all junctions of gypsum wallboard and walls of other materials or where there are exposed edges.
- G. At acoustical or sound walls, penetrations of walls shall have a minimum clearance of 1/4 inch along their perimeters at wallboard, which shall be filled with sealant. Fill all voids completely with sealant. Install wallboard 1/4 inch to 3/8 inch above floor

and fill resultant space with sealant. Achieve maximum sound insulation through careful installation work in jointing, sealing, taping, and staggering of joints.

- H. Gypsum wallboard surfaces shall have a maximum variation of 1/8 inch in eight feet when a straightedge is laid on the surface in any direction.

3.02 TAPING AND FINISHING

- A. Tape and finish all joints, corners, metal accessories, screw heads, damaged or abraded surfaces, and cutouts for the work of other trades in accordance with ASTM C840 and the drywall materials manufacturer's instructions and recommendations.
- B. Joints, wall and ceiling angles, and inside vertical corners shall be reinforced with tape embedded in taping compound and finished with not less than two applications of finishing compound, allowing each application to dry thoroughly and sanding between coats as required. Dimples at screws heads and other imperfections shall be similarly treated.
- C. External corners, edges, and ends with metal beads and edge trim shall have the flanges completely spackled and feathered off smooth from the nose.
- D. Final application of finishing compound and sanding shall leave gypsum wallboard surfaces uniformly smooth and in proper condition to receive a painted finish.
- E. Type X gypsum backing board shall be fire-taped as required.

END OF SECTION 09 29 00