

SECTION 09 21 16

GYPSUM BOARD ASSEMBLIES

PART 1 – GENERAL

1.1 SUMMARY

- A. Section includes gypsum board with joint treatment; metal stud wall framing; metal channel ceiling framing; shaftwall system; area separation wall system; tile backer boards and acoustic insulation.

1.2 SYSTEM DESCRIPTION

- A. Acoustic Attenuation for Identified Interior Partitions: 50 STC in accordance with ASTM E90.

1.3 SUBMITTALS

- A. Product Data: Submit data on metal framing, gypsum board, joint tape; acoustic accessories and joint compound.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with ASTM C840, GA-201 - Gypsum Board for Walls and Ceilings, GA-214 - Recommended Specification: Levels of Gypsum Board Finish, GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board, GA-600 - Fire Resistance Design Manual.
- B. Furnish framing materials in accordance with SSMA - Product Technical Information.
- C. Fire Rated Construction: Rating as indicated on Drawings.
  - 1. Tested Rating: Determined in accordance with ASTM E119.
  - 2. Fire Rated Partitions: Listed assembly by UL, WH, GA File.
  - 3. Fire Rated Ceilings and Soffits: Listed assembly by UL, WH, GA File.
  - 4. Fire Rated Structural Column Framing: Listed assembly by UL, WH, GA File.
  - 5. Fire Rated Structural Beam Framing: Listed assembly by UL, WH, GA File.
  - 6. Fire Rated Shaft Wall Requirements: two hour in accordance with UL listed assembly.

PART 2 – PRODUCTS

2.1 GYPSUM BOARD ASSEMBLIES

- A. Manufacturers:
  - 1. Celotex Building Products.
  - 2. Domtar Gypsum, Inc.
  - 3. G-P Gypsum Corp.
  - 4. National Gypsum Co.
  - 5. United States Gypsum (USG).

## 2.2 COMPONENTS

- A. Studs and Tracks: ASTM C645, GA-216 and GA-600; galvanized sheet steel, 0.021 and 0.036 inch thick, C shape.
- B. Furring, Framing, and Accessories: ASTM C645, GA-216 and GA-600.
- C. Gypsum Board Materials: ASTM C1396/C1396M [; Type X fire resistant where indicated on Drawings].
  - 1. Standard Gypsum Board: 5/8 inch thick, maximum available length in place; ends square cut, tapered edges.
  - 2. Moisture Resistant Gypsum Board: 5/8 inch thick, maximum available length in place; ends square cut, tapered edges.
  - 3. Gypsum Sheathing Board: 5/8 inch thick, maximum available size in place; ends square cut, square edges; water repellent paper faces.
  - 4. Gypsum Shaftliner: ASTM C442, 1 inch thick, maximum available size in place; square edges, ends square cut.
  - 5. Abuse Resistant Gypsum Board: 5/8 inch thick, maximum available length in place; ends square cut, tapered edges.
- D. Tile Backer Boards:
  - 1. Cementitious Backing Board: High density, glass fiber reinforced, 1/2 inch thick; 2 inch wide, coated glass fiber tape for joints and corners.

## 2.3 ACCESSORIES

- A. Acoustic Insulation: ASTM C665, preformed glass fiber, friction fit type, unfaced, 2.5 inch thick.
- B. Acoustic Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board.
- C. Gypsum Board Accessories: ASTM C1047; metal; corner beads, edge trim, and expansion joints.
  - 1. Metal Accessories: Galvanized steel.
  - 2. Plastic Accessories: PVC plastic.
  - 3. Edge Trim: Type LC, L bead.
- D. Joint Materials: ASTM C475, GA-201 and GA-216, reinforcing tape, joint compound, adhesive, and water.
- E. Adhesive: ASTM C557, GA-216.
- F. Fasteners: ASTM C954, ASTM C1002; length to suit application.
  - 1. Screws for Steel Framing: Type S.
  - 2. Screws for Wood Framing: Type W.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Verify site conditions are ready to receive work.

### 3.2 INSTALLATION

- A. Metal Studs:
1. Install studs in accordance with ASTM C754, GA-216 and GA-600 and as required for fire resistance ratings indicated.
  2. Metal Stud Spacing: 16 inches oc.
  3. Partition Heights: Full height to structure above. Install additional bracing for partitions extending above ceiling.
- B. Wall Furring:
1. Erect free standing metal stud framing tight to concrete, masonry walls; attached by adjustable furring brackets. Erect vertically.
  2. Space furring channels maximum 16 inches oc, and at floor and ceiling lines, abutting walls.
  3. Install insulation between furring channels attached to masonry and concrete walls.
  4. Install furring as required for fire resistance ratings indicated.
- C. Ceiling Framing:
1. Install in accordance with ASTM C754, GA-216.
  2. Coordinate location of hangers with other work. Install ceiling framing independent of walls, columns, and above ceiling work.
  3. Reinforce openings in ceiling suspension system interrupting main carrying channels or furring channels, with lateral channel bracing.
  4. Laterally brace entire suspension system.
- D. Acoustic Accessories:
1. Install resilient channels at maximum 16 inches oc perpendicular to framing. Locate joints over framing members.
  2. Place acoustic insulation in partitions tight within spaces, around cut openings, behind and around electrical and mechanical items within or behind partitions, and tight to items passing through partitions.
  3. Install acoustic sealant at any gaps at the top and bottom of partitions.
- E. Gypsum Board:
1. Install gypsum board in accordance with GA-216 and GA-600. Install gypsum board at fire rated assemblies in accordance with fire test listing.
  2. Install abuse resistant gypsum board 48" high in all corridors.
  3. Shim all window rough openings to receive drywall returns with even reveals on all sides.
  4. Fasten gypsum board to furring or framing with screws.
  5. Place control joints consistent with lines of building spaces as recommended by gypsum board manufacturer and as directed by Architect/Engineer.]
  6. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.
- 7 Seal cut edges and holes in moisture resistant gypsum board and exterior gypsum soffit board with sealant.
- F. Joint Treatment:
1. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
  2. Feather coats onto adjoining surfaces so camber is maximum 1/32 inch.
- G. Tolerances: Maximum Variation from Flat Surface: 1/8 inch in 10 feet in any direction.

...END OF SECTION 09 21 16