

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 07 21 00 – Building Insulation
- .2 Section 07 84 00 - Firestopping
- .3 Section 07 92 00 - Joint Sealants.

1.2 REFERENCES

- .1 ASTM International
 - .1 ASTM C475/C475M-17, Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
 - .2 ASTM C514-04(2014), Standard Specification for Nails for the Application of Gypsum Board.
 - .3 ASTM C840-19b, Standard Specification for Application and Finishing of Gypsum Board.
 - .4 ASTM C1002-18 – 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.
 - .5 ASTM C1047-19, Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base.
 - .6 ASTM C1280-18, Standard Specification for Application of Gypsum Sheathing.
 - .7 ASTM C1177/C1177M-17, Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
 - .8 ASTM C1178/C1178M-18, Standard Specification for Glass Mat Water-Resistant Gypsum Backing Board.
 - .9 ASTM C1396/C1396M-17, Standard Specification for Gypsum Wallboard.
 - .10 ASTM D3273-16, Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
- .2 Gypsum Association (GA)
 - .1 GA-214-2015 - Recommended Levels of Finish for Gypsum, Glass mat and Fiber-Reinforced Gypsum Panels.
 - .2 GA-216 -2016, Application and Finishing of Gypsum Panel Products.
 - .3 GA-600-2018 Fire Resistance Design Manual-Sound Control – Gypsum Systems
 - .4 GA-801-2007 Handling Gypsum Board.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for gypsum board assemblies and include product characteristics, performance criteria, physical size, finish and limitations.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store gypsum board assemblies materials level indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect gypsum board assemblies from nicks, scratches, and blemishes.
 - .3 Protect from weather, elements and damage from construction operations.
 - .4 Handle gypsum boards to prevent damage to edges, ends or surfaces.
 - .5 Replace defective or damaged materials with new.

Part 2 Products

2.1 FRAMING MATERIALS

- .1 Studs and Tracks: ASTM C645; galvanized sheet steel, 0.792 mm thick unless indicated otherwise, C-shape, with knurled faces.
- .2 Furring, Framing, and Accessories: ASTM C645 and GA-216. Use 200 mm wide 1.22 mm thick studs for blocking for support of finishes and fixtures.
- .3 Fasteners: ASTM C1002. Exterior finish to be corrosion-resistant.
- .4 Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.
- .5 Blocking: Galvanized sheet metal; 1.22 mm thick.

2.2 PANEL MATERIALS

- .1 Fire Rated Gypsum Board (Type X): ASTM C1396/C1396M, fire resistive type, UL, ULC, or ITS rated; thickness as indicated, maximum available length in place; ends square cut, tapered edges.

- .2 Joint Materials: ASTM C475/C475M-15; paper reinforcing tape, joint compound, adhesive, and water.
- .3 Fasteners: ASTM C1002-16; Type S12 screws; finish to be corrosion-resistant.
- .4 Trim: to GA-216-2006:
 - .1 Casing beads, corner beads, control joints and edge trim: to ASTM C1047-14a, zinc-coated by hot-dip process, 0.5 mm base thickness, perforated flanges, one piece length per location.
- .5 Sealants: in accordance with Section 07 92 00 - Joint Sealants.
- .6 Joint compound: to ASTM C475/C475M-15, asbestos-free.
- .7 Compressible Foam Gasket: sill plate gasket; polyethylene foam, minimum thickness 6mm x full width of sill plate.

Part 3 Execution

3.1 EXAMINATION

- .1 Verify that site conditions are ready to receive work and opening dimensions are as instructed by the manufacturer.

3.2 ERECTION

- .1 Do application and finishing of gypsum board to ASTM C840-19b except where specified otherwise.
- .2 Do application of gypsum sheathing to ASTM C1280-18.
- .3 Install work level to tolerance of 1:1200.

3.3 METAL STUD INSTALLATION

- .1 All walls, full height, to underside of deck above and sealed for sound and or fire rating.
- .2 Install studs in accordance with ASTM C754 and manufacturer's instructions.
- .3 Set studs 25 mm from concrete, concrete block walls.
 - .1 Rigidly secure studs to walls at minimum mid-height to prevent deflection.
- .4 Install sill plate gaskets to all tracks in contact with concrete on grade and walls to receive sound insulation.
- .5 Metal Stud Spacing: Maximum 400 mm o.c. or as indicated.

- .6 Where partitions require extending stud framing through the ceiling to the structure above.
 - .1 Maintain clearance under structural building members to avoid deflection transfer to studs.
 - .2 Provide extended leg ceiling runners.
 - .3 Door and Window Opening Framing: Install double studs at frame jambs.
 - .4 Install stud tracks on each side of opening, at frame head height, and between studs and adjacent studs.
- .7 Blocking: Install blocking for support of plumbing fixtures, toilet partitions, wall cabinets, wood frame opening, toilet accessories, hardware, equipment, wall mounted door stops, firestopping and as required to support accessories.
 - .1 Blocking ends and lap joints in to be secured to studs.
- .8 Anchorage to Substrate: Rigidly secure studs to substrate at minimum mid-height to prevent deflection.

3.4 PANEL INSTALLATION

- .1 Install panels in accordance with manufacturer's written instructions.
- .2 Apply gypsum board after bucks, anchors, blocking, electrical and mechanical work have been installed.
- .3 Erect single layer board in most economical direction, with ends and edges occurring over firm bearing.
- .4 Erect single layer fire rated gypsum board vertically, with edges and ends occurring over firm bearing.
- .5 Use screws when fastening to metal furring or framing.
- .6 Double Layer Applications: Secure second layer to first with fasteners. Offset joints of Second layer from joints of first layer.
- .7 Erect accessories straight, plumb or level, rigid and at proper plane.
 - .1 Use full length pieces where practical.
 - .2 Make joints tight, accurately aligned and rigidly secured.
 - .3 Mitre and fit corners accurately, free from rough edges.
 - .4 Secure at 150 mm on centre.
- .8 Install casing beads around perimeter of suspended ceilings.
- .9 Install casing beads where board butts against surfaces having no trim concealing junction and where indicated. Seal joints with sealant.
- .10 Construct control joints of preformed units set in board facing and supported independently on both sides of joint.

- .11 Place control joints consistent with lines of building spaces.
 - .1 Locate control joints where indicated at changes in substrate construction at approximate 10 m spacing on long corridor runs at approximate 15 m spacing on ceilings.
- .12 Construct expansion joints as detailed, at building expansion and construction joints. Provide continuous dust barrier.
- .13 Install access doors to electrical and mechanical fixtures.
 - .1 Rigidly secure frames to framing systems.
- .14 Finish face panel joints and internal angles with joint system consisting of joint compound, joint tape and taping compound installed according to manufacturer's directions and feathered out onto panel faces.
- .15 Gypsum Board Finish: finish gypsum board walls and ceilings to following levels in accordance with AWCI Levels of Gypsum Board Finish:
 - .1 Levels of finish:
 - .1 Level 5: embed tape for joints and interior angles in joint compound and apply three separate coats of joint compound over joints, angles, fastener heads and accessories; apply a thin skim coat of joint compound to entire surface; surfaces smooth and free of tool marks and ridges.
 - .2 Completed installation to be smooth, level or plumb, free from waves and other defects and ready for surface finish.

3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.

END OF SECTION