

SECTION 054000 - COLD-FORMED METAL FRAMING

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. 092116: Gypsum Board Assemblies.

1.2 SECTION REQUIREMENTS

- A. Submittals: Product Data and material certificates.
- B. Comply with AISI's "Specification for the Design of Cold-Formed Steel Structural Members" for calculating structural characteristics of cold-formed metal framing.
- C. Comply with AWS D1.3, "Structural Welding Code--Sheet Steel."
- D. Protect cold-formed metal framing from corrosion, deformation, and other damage during delivery, storage, and handling.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Galvanized Steel Sheet: ASTM A 653/A 653M, G60 zinc coated; Structural Steel (SS); Grade 33.
- B. Non-Load Bearing Steel Studs: C-shaped, with flange width of not less than 1-1/4 inches, minimum uncoated steel thickness of 0.0209 inch (25 gauge), and of depths indicated.
- C. Curtainwall Steel Studs: C-shaped, with flange width of not less than 1-3/8 inches, minimum uncoated steel thickness of 0.0329 inch (20 gauge), and of depths indicated.
- D. Steel Track: U-shaped, minimum uncoated metal thickness same as studs used with track, with flange widths of 1-1/4 inches, of web depths indicated.

2.2 ACCESSORIES

- A. Accessories: Fabricate from the same material and finish used for framing members, of manufacturer's standard thickness and configuration, unless otherwise indicated.
- B. Cast-in-Place Anchor Bolts: ASTM F 1554, Grade 36, threaded carbon-steel hex-headed bolts and carbon-steel nuts; and flat, hardened-steel washers; zinc coated by hot-dip process according to ASTM A 153/A 153M, Class C.

- C. Mechanical Fasteners: Corrosion-resistant coated, self-drilling, self-threading steel drill screws.
- D. Galvanizing Repair Paint: SSPC-Paint 20 or DOD-P-21035.

PART 3 - EXECUTION

3.1 FRAMING

- A. Install framing and accessories level, plumb, square, and true to line, and securely fastened, according to ASTM C 1007. Temporarily brace framing until entire integrated supporting structure has been completed and permanent connections are secured.
 - 1. Cut framing members by sawing or shearing; do not torch cut.
 - 2. Fasten framing members by welding or screw fastening.
 - 3. Install insulation in built-up exterior framing members.
 - 4. Fasten reinforcement plates over web penetrations larger than standard punched openings.
- B. Erection Tolerances: Install cold-formed metal framing with a maximum variation of 1/8 inch in 10 feet and with individual framing members no more than plus or minus 1/8 inch from plan location. Cumulative error shall not exceed minimum fastening requirements of sheathing or other finishing materials.
- C. Studs: Install continuous top and bottom tracks securely anchored at corners and ends. Squarely seat studs against webs of top and bottom tracks. Space studs as indicated, set plumb, align, and fasten both flanges of studs to top and bottom tracks.
 - 1. Install and fasten horizontal bridging in stud system, spaced in rows not more than 54 inches apart, unless otherwise indicated.
 - 2. Install miscellaneous framing and connections to provide a complete and stable wall-framing system.

END OF SECTION 054000