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**Part 1            General**

**1.1            REFERENCE STANDARDS**

- .1 American Society for Testing and Materials (ASTM)
  - .1 ASTM A123/A123M, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
  - .2 ASTM A653/A653 M- Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - .3 ASTM A792/A792M- Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- .2 Canadian Standards Association (CSA)
  - .1 CAN/CSA S136, North American Specification for the Design of Cold-Formed Steel Structural Members.
- .3 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-1.181-Ready-Mixed Organic Zinc-Rich Coating.
  - .2 Canadian Sheet Steel Building Institute (CSSBI)
  - .3 CSSBI 50M- Lightweight Steel Framing Binder.
  - .4 CSSBI S5, Guide Specification for Wind Bearing Steel Studs.
  - .5 CSSBI Fact Sheet #3, Care and Maintenance of Prefinished Sheet Steel Building Products.
  - .6 CSSBI Technical Bulletin Vol. 7, No. 2, Changing Standard Thicknesses for Canadian Lightweight Steel Framing Applications.
- .4 National Research Council Canada (NRC)
  - .1 National Building Code of Canada 2015 (NBC).

**1.2            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 rough carpentry work and include product characteristics, performance criteria, physical size, finish and limitations.

**1.3            DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance 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.

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**Part 2 Products**

**2.1 MATERIALS**

- .1 Steel studs: to CSA S136, fabricated from zinc coated steel, depth as indicated. Minimum steel thickness of 1.52 mm.
- .2 Stud tracks : fabricated from same material and finish as steel studs, depth to suit.
- .3 Bottom track: single piece.
- .4 Top track: single piece track or double track or slotted single top track. (double track or slotted single top track to accommodate deflection).
- .5 Bridging: fabricated from same material and finish as studs, 38 x 12 x 1.22 mm minimum thickness.
- .6 Angle clips: fabricated from same material and finish as studs, 38 x 38mm x depth of steel stud, 1.22 mm minimum thickness.
- .7 Tension straps and accessories: as recommended by manufacturer.

**Part 3 Execution**

**3.1 EXAMINATION**

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for rough carpentry installation in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of Departmental Representative.
  - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

**3.2 INSTALLATION**

- .1 Comply with requirements of National Building Code of Canada (NBC), supplemented by the following paragraphs.
- .2 Anchor tracks securely to structure at 800 mm on center maximum, unless lesser spacing prescribed on drawings.
- .3 Erect studs plumb, aligned and securely attached with two screws minimum, or welded in accordance with manufacturer's recommendations.
- .4 Seat studs into bottom tracks and top track. Gap between end of stud and web of track not to exceed 4.0 mm. Secure studs with two (2) screws minimum (in top and bottom tracks), or in accordance with manufacturer's recommendations.
- .5 Allow minimum deflection gap of 16.5 mm for double track or slotted single top track.
- .6 Install studs at not more than 50.0 mm from abutting walls, openings, and each side of corners and terminations with dissimilar materials.

- .7 Brace steel studs with horizontal internal bridging at 1200 mm maximum. Fasten bridging to steel clips fastened to steel studs with screws or by welding.
- .8 Frame openings in stud walls to adequately carry loads by use of additional framing members and bracing as detailed on shop drawings.
- .9 Touch up welds with coat of zinc rich primer.
- .10 ERECTION TOLERANCES
  - .1 Plumb: not to exceed 1/500th of member length.
  - .2 Camber: not to exceed 1/1000th of member length.
  - .3 Spacing: not more than 3.0 mm from design spacing.
  - .4 Gap between end of stud and track web: not more than 4.0 mm.
- .11 CUTOUTS
  - .12 Maximum size of cutouts for services as follows:
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Member Depth	Across Member Depth	Along Member Length	Centre to Centre Spacing (mm)
92	40 max.	105 max.	600 min.
102	40 max.	105 max.	600 min.
152	65 max.	115 max.	600 min.
  - .14 Limit distance from centerline of last unreinforced cutout to end of member to less than 300 mm.

### 3.3 CLEANING

- .1 Clean in accordance with Section 01 74 11 - Cleaning.
- .2 Waste Management in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

**END OF SECTION**