

PART 1 - GENERAL

- 1.1 Reference Standards
- .1 CAN/CSA-G40.20-13/G40.21-13 (of latest edition), General Requirements for Rolled or Welded Structural Quality Steel / Structural Quality Steel.
  - .2 CSA W59-18 (or latest edition), Welded Steel Construction (Metal Arc Welding).
  - .3 ASTM A307-14 (or latest edition), Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 psi Tensile Strength.
  - .4 ASTM F3125-18 (or latest edition), Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength.
  - .5 ASTM A123/A123M-17 (or latest edition), Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
  - .6 CSA G164-18 (or latest edition), Hot Dipped Galvanizing of Irregularly Shaped Articles.
  - .7 CAN/CGSB-1.181-99 (or latest edition), Ready-Mixed Organic Zinc-Rich Coating.
  - .8 CAN/CSA-S16.1-14 (or latest edition), Design of Steel Structures.
- 1.2 Shop Drawings
- .1 Submit shop drawings in accordance with Section 01 33 00.
  - .2 Indicate materials, core thicknesses, finishes, connections, joint, method of anchorage, number of anchors, supports, reinforcement, details and accessories.

PART 2 - PRODUCTS

- 2.1 Materials
- .1 Steel Sections (including HSS): to CAN/CSA-G40.21, Grade 350W.
  - .2 Steel plate and angles: to CAN/CSA-G40.21, Grade 350W.
  - .3 Welding materials: to CSA W59.
  - .4 Bolts: to ASTM F3125 Grade A325

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- .5 Anchor bolts: to ASTM A307
  - .6 Galvanizing: hot dipped galvanizing with zinc coating 600 g/m<sup>2</sup> to CSA G164.
  - .7 Zinc primer: Zinc rich, ready mix to CGSB 1-GP-181.
- 2.2 Fabrication
- .1 Build work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
  - .2 Fabricate items from steel unless otherwise noted.
  - .3 Where possible, fit and shop assemble work, ready for installation.
  - .4 Ensure exposed welds are continuous for length. All members to be seal welded. Grind welds smooth after fabrication.
- 2.3 Miscellaneous  
Metal Work Items
- .1 Miscellaneous anchors, bolts and inserts:
    - .1 Where size, spacing and the like are not indicated, provide as necessary for the purpose.
    - .2 Galvanize all miscellaneous anchors, bolts and inserts.

### PART 3 - EXECUTION

- 3.1 Erection
- .1 Install metalwork square, plumb, straight and true, accurately fitted, with tight joints and intersections.
  - .2 Make field connections with bolts to CAN/CSA-S16.1, or weld.
  - .3 Touch-up bolts and scratched surfaces of galvanized items after completion of erection with zinc primer.
  - .4 Touch-up painted surfaces damaged during transportation and installation with coating to match factory or shop applied finishes.

END OF SECTION