

1 General

1.1 RELATED WORK

- .1 Not Applicable.

1.2 DESCRIPTION OF WORK

- .1 The work of this Section comprises the provision of all labour, material and equipment necessary for all miscellaneous metal fabrications as indicated on the drawings and specified herein.

1.3 REFERENCES

- .1 ASTM A53 Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
- .2 ASTM A307-97, Standard Specification for Carbon Steel Bolts and Studs, 60000 psi Tensile.
- .3 ASTM A325M-04b, Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
- .4 CAN/CSA-S16.1, Limited States Design of Steel Structures.
- .5 CAN/CSA-G40.21, Structural Quality Steels.
- .6 CSA W59, Welded Steel Construction (Metal Arc Welding).
- .7 CAN/CAS-G164-M92 (R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.
- .8 CSA W47.1-92 (R2001), Division 1 and 2.1, Certification of Companies for Fusion Welding of Welded Steel Structures.

1.4 SHOP DRAWINGS

- .1 Indicate materials, core thicknesses, finishes, connection, joints, method of anchorage, number of anchors, supports, reinforcements, details and accessories.

2 Products

2.1 MATERIALS

- .1 Steel sections and plates: to CAN/CSA G40.21, Grade 350W except where specified otherwise.
- .2 HSS Sections: to ASTM A500, grade 350W.
- .3 Steel Pipe: ASTM A53, standard weight.
- .4 Welding materials: to CSA W59.
- .5 Bolts and anchor bolts: to ASTM A307, galvanized.
- .6 Galvanizing: hot dipped galvanizing with zinc coating 610 g/m2 to CSA G164.

2.2 FABRICATION GENERAL

- .1 Fabricate steel, as indicated, in accordance with CAN/CSA-S16.1 and in accordance with reviewed shop drawings.
- .2 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
- .3 Used welded connections for both interior and exterior metal work unless otherwise indicated or approved by Engineer..
- .4 Use self-tapping, shake-proof countersunk flat headed screws on items requiring assembly by screws, or as indicated..
- .5 Where possible, fit and shop assemble work, ready for erection.

- .6 Ensure exposed welds are continuous for length of each joint. File or grind exposed welds smooth and flush.
- .7 Grind and polish all exposed edges and corners to leave smooth surface free from burrs or other sharp protrusions..
- .8 All holes shall be punched or drilled. Burning holes in any steel member is NOT permitted.

2.3 MISCELLANEOUS STEELS

- .1 Provide all miscellaneous steels (angles, c-channels, plates, H& W shapes, pipes, etc.) as may be required to complete work.

2.4 MISCELLANEOUS ANCHOR BOLTS

- .1 Supply and install as indicated.

3 Execution

3.1 GENERAL

- .1 Do miscellaneous steel work in accordance with CAN/CSA S16.1.
- .2 Welding in accordance with CSA W59.
- .3 Companies to be certified under Division 1 and 2.1 of CSA W47.1 for fusion welding of steel structures and/or CSA W55.3 for resistance welding of structural components..

3.2 CONNECTION TO EXISTING WORK

- .1 Verify dimensions, alignment, elevations and condition of existing work before commencing fabrication and report any discrepancies and potential problem areas to Consultant and await instructions.

3.3 ERECTION GENERAL

- .1 Erect metalwork square, plumb, straight, and true, accurately fitted, with tight joints and intersections..
- .2 Where not specifically indicated otherwise, provide suitable and acceptable means for anchorage acceptable to Engineer, such as dowels, anchor clips, bar anchors, expansion bolts and shields, toggles. .
- .3 Make field connections with high tensile bolts to CAN/CSA-S16.1 or weld.

End of Section