

Part 1 General

1.1 RELATED SECTIONS

- .1 01 33 00 – Submittal procedures
- .2 01 74 21 – Construction-demolition Waste Management and Disposal
- .3 03 30 00.01 – Cast-in-place Concrete short form.

1.2 REFERENCES

- .1 ASTM International
 - .1 ASTM A53/A53M-07, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
 - .2 ASTM A269-08, Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
 - .3 ASTM A307-07b, Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
- .2 CSA International
 - .1 CSA G40.20/G40.21-04(R2009), General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
 - .2 CAN/CSA G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.
 - .3 CSA W48-06, Filler Metals and Allied Materials for Metal Arc Welding (Developed in co-operation with the Canadian Welding Bureau).
 - .4 CSA W59, Welded Steel Construction (Metal Arc Welding) Metric.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Submit two copies of WHMIS MSDS in accordance with Section 01 33 00 - Health Submittal Procedures. Indicate VOC concentration.
- .2 Shop Drawings:
 - .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Indicate materials, core thicknesses, finishes, connections, joints, method of anchorage, number of anchors, supports, reinforcement, details, and accessories.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with section 01 61 00 – common Product Requirements.

- .2 Storage and Handling Requirements:
 - .1 Replace defective or damaged materials with new.

1.5 MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 – Management and Disposal of Construction/Demolition.
- .2 Remove from site all packing materials and at appropriate recycling facilities.
- .3 Collect and separate packaging of corrugated paper or plastic all materials and place them in appropriate on-site bins for recycling in accordance with Waste Management Plan.
- .4 Divert unused metal materials to a metal recycling facility approved by the Departmental Representative.

Part 2 Products

2.1 MATERIALS

- .1 Steel sections and plates: to CSA G40.20/G40.21, Grade 350W for steel section and 300W for plates.
- .2 Welding materials: to CSA W59.
- .3 Welding electrodes: to CSA W48 Series.
- .4 Bolts and anchor bolts: to ASTM A307.

2.2 FABRICATION

- .1 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
- .2 Where possible, fit and shop assemble work, ready for erection.
- .3 Ensure exposed welds are continuous for length of each joint. File or grind exposed welds smooth and flush.

2.3 FINISHING

- .1 Galvanizing: Hot-dip, with zinc coating 600 s/m^2 , according to ASTM A123/A123M.

Part 3 Execution

3.1 REVIEW

- .1 Verification of conditions: Before proceeding with the installation of metal structures, ensure that the surface condition/media previously implemented under other sections of contracts is acceptable and can perform the work in accordance with manufacturer's written instructions.

3.2 ASSEMBLY

- .1 Unless otherwise specified, perform welding in accordance with CSA W59.
- .2 Mount metalwork square, plumb and level, aligned and adjusted accurately and ensure that the joints and crossovers are tight.
- .3 Provide the necessary work of other trades, according to the nomenclature and shop drawings submitted components.
- .4 Assemble the elements on site using bolts to CSA S16 or welding, as shown on the plan.

3.3 FINISHING

- .1 Galvanized Steel:

The following metal parts are galvanized bolts, nuts, washers and plates, as shown on drawings.

3.4 PREPARATION

- .1 Remove the iron L and U existing plate welded on top of the piles in areas where there is a wheel guard to install.
- .2 Remove concrete slab concrete bonded to the steel sheet pile to allow the installation of iron L by bolting as indicated on drawings.

3.5 EXECUTION

- .1 In the woodwork, each rock bolt shall be provided with two (2) ordinary steel washers. Heads and nuts and bolts will also evenly over slices. They will be drowned in touch pieces of wood on all outer surfaces of wheel holes will be drilled to the same diameter as the bolts used.
- .2 Drill each wing of the existing pile for installing irons L. Place steel shims as needed to thoroughly subject to the L chains of steel sheet pile.

3.6 CLEANING

- .1 Cleaning up work: perform cleanup in accordance with Section 01 74 11 – Cleaning.
 - .1 Keep the site clean at each end day.
- .2 Final cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

3.7 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by metal fabrications installation.

END OF SECTION