

**Wharf Reconstruction****Chebogue****Yarmouth County, Nova Scotia****Project No. R.100885.001**

Metal Fabrication

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PART 1 - GENERAL1.1 Reference Standards

- .1 ASTM A123/A123M-17, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- .2 ASTM A307-14e1, Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 psi Tensile Strength.
- .3 CSA G40.20/G40.21-13 (R2018), General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
- .4 CSA S16-14, Design of Steel Structures.
- .5 CSA W59-18, Welded Steel Construction.
- .6 CAN/CGSB-1.181-99, Ready-Mixed Organic Zinc-Rich Coating.

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.

1.3 Measurement for Payment

- .1 Measurement for payment will be in accordance with Section 01 29 00.

PART 2 - PRODUCTS2.1 Materials

- .1 Steel plate, angles, threaded rods and rods: to CSA G40.20/G40.21, Grade 300W.
- .2 Welding materials: to CSA W59.
- .3 Bolts and anchor bolts: to ASTM A307.

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|     | .4                                    | Galvanizing: hot dipped galvanizing with zinc coating 600 g/m <sup>2</sup> to ASTM A123/A123M.                    |
|     | .5                                    | Zinc primer: Zinc rich, ready mix to CGSB 1-GP-181.   |
| 2.2 | <u>Fabrication</u>                    |   |
|     | .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.   |
| 2.3 | <u>Miscellaneous Metal Work Items</u> |   |
|     | .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.   |
|     | .2                                    | Miscellaneous Steel:  |
|     | .1                                    | Provide miscellaneous steel as required for guide units and the like to the shape, size and details required.     |
|     | .2                                    | Galvanize all miscellaneous steel items.  |

PART 3 - EXECUTION

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|-----|-----------------|---|
| 3.1 | <u>Erection</u> |   |
|     | .1              | Install metalwork square, plumb, straight and true, accurately fitted, with tight joints and intersections. |
|     | .2              | Make field connections with bolts to CSA S16, or weld.  |
|     | .3              | Touch-up bolts and scratched surfaces after completion of erection with zinc primer.                        |
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