

Tender No. []

1.0 GENERAL

1.1 DETAIL DRAWINGS

- .1 The following detail drawing is appended hereto and forms part of this section.

<u>Number</u>	<u>Title</u>
02834.01	Typical Vehicle Access Control Gate

1.2 REFERENCES

- .1 Provide vehicle access control gates in accordance with the following standards (latest revision) except where specified otherwise.
- .2 American Society for Testing and Materials (ASTM)
- .1 ASTM A36/A36M Standard Specification for Carbon Structural Steel.
- .2 ASTM A53/A53M Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
- .3 ASTM A325M Standard Specification for Structural Bolts, Steel, Heat Treated 830 MPa Minimum Tensile Strength (Metric).
- .3 Canadian General Standards Board (CGSB)
- .1 CAN/CGSB-1.40 Anticorrosive Structural Steel Alkyd Primer.
- .4 Canadian Standards Association (CSA)
- .1 CSA-G40.21 Structural Quality Steel.
- .2 CAN/CSA-S16 Limit States Design of Steel Structures.
- .3 CSA-W48 Filler Metals and Allied Materials for Metal Arc Welding.
- .4 CSA-W59M Welded Steel Construction (Metal Arc Welding) (Metric Version).
- .5 Structural Steel Painting Council (SSPC)
- .1 SSPC-SP-6 Commercial Blast Cleaning.

1.3 SUBMITTALS

- .1 Provide the following submittals.
- .2 Shop drawings of the gates, including material specifications, dimensions, finishes, and other details, at least 20 days prior to fabrication.
- .3 Manufacturer's written instructions for repair of damaged coatings prior to performing the work.

Tender No. []

1.4 DELIVERY, STORAGE, AND HANDLING

- .1 Inspect each shipment of material and timely replace any damaged materials.
- .2 Unload, handle, and store materials using methods and equipment that do not cause damage to the gates or shop-applied coatings.

2.0 PRODUCTS

2.1 MATERIALS

- .1 Provide materials in accordance with the following.
- .2 Hollow structural sections: In accordance with CSA-G40.21, Grade 350W.
- .3 Plates, bars, and other miscellaneous steel items: In accordance with ASTM A36/A36M.
- .4 Bolts: In accordance with ASTM A325M, galvanize finish.
- .5 Fill Concrete: Minimum compressive strength of 20 MPa at 28 days using Type HS or HSb Sulphate Resistant Cement with an air content between 4% and 7%, and a maximum slump of 100 mm.
- .6 Reinforcing steel: In accordance with Section 03210 – Reinforcing Steel.

2.2 SHOP FABRICATION

- .1 Employ a fabricator certified by the Canadian Welding Bureau in accordance with CSA-W47.1, Division 3.
- .2 Fabricate the gates in accordance with CAN/CSA-S16. Perform welding in accordance with CSA-W59 using welding electrodes in accordance with CSA-W48.
- .3 Prior to shop painting, commercial blast clean steel surfaces in accordance with SSPC-SP-6, and provide a 0.050 mm profile.
- .4 Shop paint all steel surfaces except for those that are galvanized or permanently encased in concrete.
- .5 Paint steel surfaces with 1 coat of primer in accordance with CAN/CGSB-1.40, and 2 coats of caution warning yellow (C115) two-component epoxy paint. Prepare surfaces and apply paint in accordance with the paint manufacturer's written instructions. Apply the next coat after the initial coat has dried completely. Provide dry film thickness for the each coat of primer and epoxy paint in accordance with paint manufacturer's written instructions.

Tender No. []

3.0 EXECUTION

3.1 INSTALLATION

- .1 Install the vehicle access control gates at the locations, of the sizes, and to the elevations specified in the Contract Documents.
- .2 Excavate the post holes, place the fill concrete, embed the posts to the specified depth, and compact the concrete. Extend the concrete 50 mm above the ground surface and slope to drain away from the posts.
- .3 Brace the posts in a plumb position and in true alignment until the concrete has cured for a minimum of 7 days at ambient temperatures above 10°C.
- .4 Install the gate on the posts after the fill concrete has attained its specified compressive strength.

3.2 REPAIR OF DAMAGED COATINGS

- .1 Power tool clean surfaces to be repaired and re-coat with the specified primer and paint in accordance with the paint manufacturer's written instructions.

END OF SECTION