

**DIVISION 32**

**EXTERIOR IMPROVEMENTS**

**Part 1            General**

**1.1                RELATED SECTIONS**

- .1    Section 03 30 00 - Cast-in-place concrete
- .2    Section 03 20 00 - Concrete Reinforcing
- .3    Section 05 50 00 - Metal Fabrications

**1.2                REFERENCES**

- .1    American Iron and Steel Institute (AISI)
- .2    American Society for Testing and Materials (ASTM)
  - .1    ASTM A53/A53M, Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
- .3    Canadian General Standards Board (CGSB)
  - .1    CAN/CGSB-1.40, Anti-corrosive Structural Steel Alkyd Primer.
  - .2    CAN/CGSB-1.108, Bituminous Solvent Type Paint.
  - .3    CAN/CGSB-1.181, Ready-Mixed, Organic Zinc-Rich Coating.
- .4    Canadian Standards Association (CSA)
  - .1    CAN/CSA-G40.20/G40.21, General Requirements for Rolled or Welded Structural Quality Steel.
  - .2    CAN/CSA-G164, Hot Dip Galvanizing of Irregularly Shaped Articles.
  - .3    CAN/CSA-S16.1, Limit States Design of Steel Structures.
  - .4    CSA W59, Welded Steel Construction (Metal Arc Welding).
- .5    The Society for Protective Coatings (SSPC)
  - .1    SSPC Painting Manual, Volume 2, Systems and Specifications.

**Part 2            Products**

**2.1                MATERIALS**

- .1    Steel pipe: 200 diameter SCH 40 STD.

**2.2                SHOP PAINTING**

- .1    Clean surfaces in accordance with SSPC Painting Manual, Volume 2, minimum SP3.
- .2    Apply one shop coat of primer to bollards prior to painting.
- .3    Clean surfaces before painting. Do not paint when temperature is lower than 7°C. Apply approved yellow epoxy paint as final finish.

**Part 3 Execution**

**3.1 ERECTION**

- .1 Set pipe level and plumb into reinforced concrete footing as indicated on drawings. Fill pipe with concrete and round over concrete at top of bollard.
- .2 Concrete 30 MPa. Reinforcing to Section 03 20 00 - Concrete Reinforcing.
- .3 Attach 4 strips of white 25 mm wide reflective tape around diameter after installation as illustrated on drawings.

**END OF SECTION**