

**PART 1**      **GENERAL**

**1.1**            **RELATED REQUIREMENTS**

- .1      Section N/A.

**1.2**            **REFERENCES**

- .1      Canadian General Standards Board (CGSB)
  - .1      CAN/CGSB-1.28-98, Exterior, Alkyd, House Paint.
  - .2      CAN/CGSB-1.40-M97, Anti-corrosive, Structural Steel Alkyd Primer.
  - .3      CAN/CGSB-1.59-97, Alkyd Exterior Gloss Enamel.
  - .4      CAN/CGSB-1.181-99, Ready-Mixed Organic Zinc-Rich Coating.
  - .5      CGSB 31-GP-107Ma-90, Non-inhibited, Phosphoric Acid Base Metal Conditioner and Rust Remover.
- .2      Canadian Standards Association (CSA International)
  - .1      CAN/CSA-O80 Series-97(February 2000), Wood Preservation.
- .3      CAN/CSA-G164-M92(R1998), Hot Dip Galvanizing of Irregularly Shaped Articles.

**1.3**            **SAMPLES**

- .1      Submit samples in accordance with Section 01 33 00 - Submittal Procedures.

**1.4**            **WASTE MANAGEMENT AND DISPOSAL**

- .1      Separate and recycle waste materials in accordance with Section 01 74 19 - Construction/Demolition Waste Management and Disposal.
- .2      Collect and separate for disposal packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan.
- .3      Do not dispose of preservative treated wood through incineration.
- .4      Do not dispose of preservative treated wood with other materials destined for recycling or reuse.
- .5      Dispose of treated wood, end pieces, wood scraps and sawdust at a sanitary landfill.
- .6      Dispose of unused preservative material at an official hazardous material collections site. Do not dispose of unused preservative material into the sewer system, streams, lakes, on ground or in any other location where they will pose a health or environmental hazard.

**PART 2**      **PRODUCTS**

**2.1**            **MATERIALS**

- .1      Steel W-beam guide rail as indicated and to following requirements:
  - .1      Steel rail and terminal sections: to AASHTO M180, class A Type 1 zinc coated Type 3, painted with one shop coat of red lead primer.
  - .2      Bolts, nuts and washers: to ASTM A 307, hot dip galvanized to CSA G164.
- .2      Organic zinc-rich coating: to CAN/CGSB-1.181.

- .3 Metal conditioner, and paints.
  - .1 Metal conditioner: to CGSB 31-GP-107Ma.
  - .2 Primer paint for galvanized steel: to CAN/CGSB-1.40.

### **PART 3**      **EXECUTION**

#### **3.1**      **ERECTION**

- .1 Set posts by instrument for alignment, and locations as indicated and as directed by Departmental Representative.
- .2 Excavate post holes to depths as indicated and to diameter of 360 mm plus or minus 20 mm. Compact bottom to provide firm foundation. Set post plumb and square in hole.
- .3 Backfill around posts using excavated material and compact in uniform layers not exceeding 150 mm compacted thickness.
- .4 Leave or make depression approximately 150 mm deep around posts until painting is completed, then fill and compact to ground elevation.
- .5 Cut off tops of posts as indicated, with tops parallel to grade of pavement edge.
- .6 Worker protection: workers must wear gloves, respirators, dust masks, long sleeved clothing, eye protection and protective clothing when handling, drilling, sawing, cutting or sanding preservative treated wood and applying preservative materials.
- .7 Construct anchorages to details as indicated. Place and compact backfill for anchors as directed by Departmental Representative.
- .8 Erect steel W-beam components to details as indicated. Lap joints in direction of traffic. Tighten nuts to 100 N.m torque. Maximum protrusion of bolt 12 mm beyond nut.

#### **3.2**      **PAINTING TOUCH UP**

- .1 Galvanized steel-touch up:
  - .1 Clean damaged surfaces with wire brush removing loose and cracked coatings. Apply two coats of organic zinc-rich paint to damaged areas. Pre-treat damaged surfaces according to manufacturer's instructions for zinc-rich paint.
  - .2 Painted steel:
    - .3 Apply one coat of primer and two coats of finish paint to exposed.
  - .4 Painted posts and offset blocks:
    - .1 Apply two coats of paint to exposed surfaces of posts and offset blocks.

**END F SECTION**