

**W-BEAM GUARDRAIL**

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**1.0 GENERAL**

**1.1 WORK INCLUDED**

**1.1.1 CAST-IN-PLACE CONCRETE**

**1.1.2 SOURCE SAMPLING**

- .1 At least four (4) weeks prior to commencing work, inform Engineer of proposed sources of guide rail and components and provide access for sampling.

**2.0 PRODUCTS**

**2.1 MATERIALS**

**2.1.1 STEEL W-BEAM GUIDE RAIL:**

1. Steel rail and terminal sections: to AASHTO M180-74, Class A, Type 1, Zinc coated.
2. Bolts, nuts and washers: to ASTM A307-78 hot dip galvanized to CAS G164-1965 (R1972).

**2.1.2 TIMBER POST AND OFFSET BLOCK:**

1. Well seasoned, straight and sound, free from loose knots or other defects, and dressed four sides.
2. Acceptable species of wood: Jack Pine.
3. Treat posts and blocks with creosote oil to CSA 080-1974. Use empty cell.

**3.0 EXECUTION**

**3.1 INSTALLATION:**

1. Install posts plumb at locations and to depth indicated.
2. When excavation is required, auger post holes and compact bottom to provide firm foundation. Set post plumb and square in hole, backfill in 150 mm layers and compact each layer before placing succeeding layer.
3. Cut off tops of posts to elevations indicated.
1. Treat cut tops with two (2) coats of same type of wood preservative used to pressure treat posts.

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5. Construct anchorages to details indicated. Place and compact backfill for anchor blocks as directed.
  6. Erect steel W-beam components to details indicated. Lap joints in direction traffic. Tighten nuts to 100 mm torque. Maximum protrusion of bolt 6 mm beyond nut.

**3.2** Painting:

1. Touch up damage to galvanized finish with two coats of zinc rich paint.