**Design Criteria:**

1. Designed in accordance with the 2009 AWWA, 5th edition, "Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals." For 90 m.p.h. wind zone. The design parameters include:
   - 50 year structure design life.
   - Anchor bolts analyzed for steel strength only. The anchor bolt embedment length shown on this drawing shall be verified by the foundation engineer.
   - The exposed length of the anchor bolt between the top of the foundation and the bottom of the leveling nut should not exceed one bolt diameter.
   - Welding shall be in accordance with the American Welding Society Code AWS D1.1 latest edition. Welders shall be qualified in accordance with AWS D1.1 welding procedures.
   - Customer to confirm all dimensions and coordinates before releasing order for manufacturing.

**Material Specifications:**

- **Reinforced Tube:** ASTM A500 gr A.
- **Plate:** ASTM A572 gr 50.
- **Bar Handrail Frame:** ASTM A500 gr 50 or ASTM A572 gr 50.
- **Anchor Bolts:** ASTM A354 gr 55.
- **Handrail Bolts:** ASTM A490.
- **Flat Washers:** ASTM F236.
- **Pipe:** ASTM A53 gr B, 500 gr B or C.

**Design:**

- 11 GA = 0.12" WALL THICKNESS
- E = ROUND TAPEROED STEEL TUBE @ 0.14" I/A PAPER

**Order Example:**

50200-1137-FB

**End of Drawing:**

5/9/2014
Expires 11/17/2014

**Approved for Listing As A Pre-Approved Drawing by GB Bridge & Structures Office By GB Date 5-12-2014**