**NOTES:**

1. Work with index 700-010.
2. Shop Drawings: Not required.

**3. Materials:**

- A. Steel Pipe: ASTM A36 or ASTM A500 Grade B
- B. Steel Pipe (Support Post): ASTM A500 Schedule 40
- C. Aluminum Pipe: ASTM B210 Alloy 6061 T6
- D. Galvanized U-Bolts, Nuts and Plate Washers
  a. U-Bolts: ASTM A499
  b. Hex Nuts: ASTM A 563 Lock Nuts
- E. Pipe Washer: ASTM A 36 or ASTM A500 Grade 36 or 50
- F. Galvanized anchor bolts, nuts and washers:
  a. Anchor Rod: ASTM F1554 Grade 55 fully threaded (for Adhesive Anchors)
  b. Anchor Bolt: ASTM F1554 Grade 55 Grade A Hex
  c. Nuts: ASTM A563 Heavy Hex Locking
  d. Washers: ASTM F436
- G. Adhesive Anchor Bonding Material: Specification Section 931 Type H1 Adhesive.
- H. Weld Material: E70XX
- I. Snap-In Post Cap: UV and weather-resistant glass-filled polyester cap

**4. Coatings:**

- A. U-Bolts, Threaded Rods, Nuts and Washers: ASTM F2329
- B. Other Steel: ASTM A132

**5. Fabrication:**

- A. Weld: Specification Section 460-6.4
- B. Hot dip galvanize after fabrication

**6. Construction:**

- A. Locate Sign Support a minimum of 5 feet from an open joint or transition (sign stationing may be adjusted to accommodate this requirement).
- B. Base plate must be flush with back of Traffic Railing
- C. Anchors in Traffic Railings:
  a. Install Adhesive Anchors in accordance with Specification section 416 except perform field test on one anchor per sign support location.
  b. Use templates and tie anchors as necessary to maintain correct placement of C-I-P Embedded Anchors
- D. Do not drill into existing conduit
- E. Snap-In Post Cap: UV and weather-resistant glass-filled polyester cap

**7. Removal of Temporary Signs on Permanent Traffic Railings:**

- A. Cut anchor rods flush with the top of the traffic railing
- B. Coat anchors with Type F-3 epoxy to prevent corrosion
  a. Extend coating 2 inches beyond edge of cut anchor rods
  b. Epoxy coating 1/16" thick minimum

**8. Payment:**

Include the cost of all materials and labor in the cost of the single post sign assembly.

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**SIGN LIMITATIONS TABLE**

<table>
<thead>
<tr>
<th>MAX. SIGN AREA (SF)</th>
<th>MAX. SIGN CENTROID HEIGHT (DIM. A + DIM. C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2'5&quot;</td>
<td>9'-7&quot;</td>
</tr>
</tbody>
</table>

Dimension A = Distance from centerline of the Support Post to the bottom of the sign or sign cluster.

Dimension C = Vertical distance from the bottom of the sign or sign cluster to the centroid of the sign or sign cluster.

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**SIGN SUPPORT ASSEMBLY**
NOTES:

1. Existing Traffic Railings:
   A. Locate existing conduit prior to drilling and adjust placement of base plate as necessary to avoid damaging existing conduit. Base plate must be flush with under face of traffic railing. Maintain a minimum cover 2" from face of traffic railing to tip of Adhesive anchor.
   B. For concrete parapets less than 12" thick, through bolt 3/4" Heavy Hex Head Bolts with Nuts and Washers in lieu of Adhesive Bonded Anchors. Bolt heads shall not protrude more than 1" beyond traffic face of railing.
   C. For through bolting, countersink the nut and washer so that the bolt and nut does not extend beyond the face of the traffic railing. Do not exceed a countersink depth and diameter of 2/3.

2. New Traffic Railings:
   A. Optional Couplers are shown for slipforming. Keep Anchor Bolt coupler threads free of concrete.
   B. For concrete parapets less than 10" thick, through bolt Adhesive Anchor.
   C. For through bolting, countersink the nut and washer so that the bolt and nut does not extend beyond the face of the traffic railing. Do not exceed a countersink depth and diameter of 2/3.

3. 360° Single-Sloped Traffic Railings shown. Other Traffic Railings and Parapets are similar.

4. Bridge Deck shown, Approach Slab and Retaining Wall are similar.