NOTES:
1. Work this Index in conjunction with CANTILEVER SIGN STRUCTURE
DATA TABLES in the Plans and Index 700-080.
2. Handholes are required at pole base for DNS Structures. Refer to
Index 700-090 for Handhole Details.

3. Shop Drawings are required:
   Obtain Shop Drawing approval prior to fabrication. Include the following:
   A. Upright Pipe height (A) and Foundation elevations. Verify dimension in
      the field prior to submittal to ensure minimum vertical clearances of
      the sign panel over the roadway.
   B. Height of the foundation above adjacent ground.
   C. Anchor bolt orientation with respect to centerline of truss and
      the direction of traffic.
   D. Chord Splices
   E. Handholes at pole base (when required).

4. Materials:
   A. Sign Structure:
      a. Upright and Chords (Steel Pipe): API 5L X42 PSL2, 42 ksi yield
         per ASTM A500, Grade B (WA).
      b. Steel Angles and Structural Plates and Bars: ASTM A709 Grade 36
      b. Wood Material: ET1340 X
   B. Bolts, Nuts and Washers:
      a. High Strength Bolts: ASTM F3125, Grade A325 Type 1
      b. Nuts: ASTM A583 Grade DH Heavy-Hex
      c. Washers: ASTM F436 Type 1, one under turned element
   C. Anchor Bolts, Nuts and Washers
      a. Anchor Bolts: ASTM F7534 Grade 55
      b. Nuts: ASTM A563 Grade A Heavy-Five (3 per bolt)
      c. Plate Washers, TMS A452 (2 per bolt)
   D. Concrete
      a. Spread footing Concrete: Class IV
      b. Drilled Shaft concrete: Class IV (Drilled Shaft)
   E. Reinforcing Steel: Specification A135

5. Fabrication:
   A. Welding: Specification 460-6.4
   B. Chord Splices: "SD" Panel from upright is the closest panel in which
      a chord splice may be used. See Plans for CANTILEVER SIGN STRUCTURE
      DATA TABLE: Minimum space spacing is two truss panel lengths apart.
   C. Upright Splices: Not allowed
   D. Structural bolt hole diameters: Bolt diameter plus 1⁄8"
   E. Anchor bolt hole diameters: Bolt diameter plus 3⁄16"
   F. Hot Dip Galvanize after fabrication.
   G. Shop assemble the entire structure after galvanizing to validate/document
      alignment and clearance for bolted connections as well as contact between
      connecting plates. Take remedial action, if necessary, prior to shipment.
   H. Disassemble, as necessary, and secure components for shipment.

6. Coatings:
   A. Bolts, Nuts and Washers: ASTM F3339
   B. All other steel, including Plate Washers, hot dip galvanize: ASTM A123

7. Construction:
   A. Construct foundation in accordance with Specification 455, except
      payment is included in the cost of the structure.
   B. Prior to erection, record the as-built anchor locations and submit to
      the Engineer.
   C. Place backfill above spread footings prior to installation of the sign
      panels. Do not remove or reduce backfill without prior approval of
      the Engineer.
   D. Tighten nuts and bolts in accordance with Specification 700.
   E. Handholes at pole base (when required).
   F. Disassemble, as necessary, and secure components for shipment.

FY 2020-21
STANDARD PLANS
CANTILEVER SIGN STRUCTURE
INDEX 700-040
1 of 5

CANTILEVER SIGN ASSEMBLY
ISOMETRIC VIEW
CAMBER DIAGRAM
NOTES:
1. Construction joint allowed, roughen surface to 1/4" minimum amplitude prior to pour.
2. See Traffic Plans for elevation at top of Foundation.
3. Install Drilled Shaft with a 3'-0" minimum from top elevation of the drilled shaft to the finished grade, unless specified otherwise in the plans.
4. The shaft length is based on 2'-0" height above finished grade.
5. Structural Grout Pad dimension may be modified to be less than 3" where the footprint of the Structural Grout Pad does not provide adequate clearance for accessibility considerations.
6. Wrap fillet weld around the stiffener termination on the tube wall.

1. Construction joint allowed, roughen surface to 1/4" minimum amplitude prior to pour.
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4. The shaft length is based on 2'-0" height above finished grade.
5. Structural Grout Pad dimension may be modified to be less than 3" where the footprint of the Structural Grout Pad does not provide adequate clearance for accessibility considerations.
6. Wrap fillet weld around the stiffener termination on the tube wall.
NOTE:
1. Wrap fillet weld around the stiffener termination on the tube wall.
2. Truss Chord Bolts:
   A. Top and Bottom: Install 'TC' hex head bolts.
   B. Back: Install 'TB' hex head bolts.
   C. Bottom: Install 'FB' hex head bolts.
CANTILEVER ASSEMBLY

TRUSS NOTES:
1. Out-of-plane members are not shown for clarity.
2. Wrap fillet weld around plate termination on the tube wall.
3. Chord Splices not shown.

<table>
<thead>
<tr>
<th>Bolt Size</th>
<th>EA Ø 1/8 in.</th>
<th>EA Ø 5/32 in.</th>
<th>EA Ø 7/64 in.</th>
<th>EA Ø 1/32 in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/16 in.</td>
<td>1/16 in.</td>
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<td>5/32 in.</td>
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</tbody>
</table>

FRONT ELEVATION
SIDE ELEVATION
**SPLICE CONNECTION NOTES:**

1. Only 6 bolts are shown in detail for clarity. (One Half Each Side Of Splice)
2. Splices are not permitted for trusses less than or equal to 40', Splice optional for trusses greater than 40'.

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**UPRIGHT CAP DETAIL**

**TRUSS PLUG DETAIL**

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**SIDE ELEVATION**

**FRONT ELEVATION**