MATERIAL SPECIFICATIONS

PIPE
CHORDS, DIAGONALS, STRUTS AND POSTS
ASTM A 36 OR ASTM A 53
TYPE B OR S, OR A 500 GRADE B

PLATES
ASTM A 36

SHAPES
ASTM A 36
ASTM A 992

BOLTS, NUTS, & WASHERS
STD. SPEC 9-06.53

PIECE PLATE & SHAPE
GALVANIZING
ASHTO M 111

FASTENER
GALVANIZING
ASHTO M 232

ELEVATION

Y₁ = HEIGHT OF SHALLOWEST SIGN ON STRUCTURE, D = 1'-0" MIN.
Y₂ = HEIGHT OF ANY SIGN WITH HEIGHT GREATER THAN Y₁.

Y = HEIGHT OF ANY SIGN WITH HEIGHT GREATER THAN Y₁.

STRUCTURE DIMENSIONS

<table>
<thead>
<tr>
<th>SPAN LENGTH S</th>
<th>DIMENSION D</th>
<th>TOP AND BOTTOM CHORDS</th>
<th>DIAGONALS</th>
<th>END TRUSS POSTS</th>
<th>END TRUSS STRUTS AND DIAGONALS</th>
<th>TOTAL SIGN AREA (MAX.) (SQ. FT.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60' OR LESS</td>
<td>4'-0&quot;</td>
<td>3&quot; x 216&quot;</td>
<td>1 1/4&quot; x 140&quot;</td>
<td>10&quot; x 279&quot;</td>
<td>2 1/2&quot; x 203&quot;</td>
<td>384</td>
</tr>
<tr>
<td>60' to 60'</td>
<td>5'-0&quot;</td>
<td>4&quot; x 203&quot;</td>
<td>2&quot; x 154&quot;</td>
<td>10&quot; x 279&quot;</td>
<td>2 1/2&quot; x 203&quot;</td>
<td>604</td>
</tr>
<tr>
<td>90' to 120'</td>
<td>6'-0&quot;</td>
<td>5&quot; x 208&quot;</td>
<td>2&quot; x 154&quot;</td>
<td>10&quot; x 307&quot;</td>
<td>3&quot; x 216&quot;</td>
<td>964</td>
</tr>
<tr>
<td>120' to 150'</td>
<td>7'-0&quot;</td>
<td>6&quot; x 280&quot;</td>
<td>2 1/2&quot; x 203&quot;</td>
<td>10&quot; x 386&quot;</td>
<td>3 1/2&quot; x 226&quot;</td>
<td>1104</td>
</tr>
</tbody>
</table>

ALL MEMBERS ARE PIPE. VALUES SHOWN ARE NOMINAL PIPE SIZE AND WALL THICKNESS.

NOTES

1. Horizontal and vertical clearance requirements shall be as shown in Contract Plans.
2. Horizontal diagonals must join chords where vertical diagonals connect (panel points).
3. Interior diagonals shall be placed at panel points, 40' (ft) maximum spacing. Locate symmetrically about centerline of span if possible. An interior diagonal is not required at span ends.
4. No post splices permitted in lower third of height, nor closer than 3'-0" to bottom of chord. No chord shop splices permitted in middle third of span. Maximum of one splice in each end post.
5. For electrical requirements See Standard Plan J-75.45.

RICHARD F. ZELDELS
B.S. IN ARCHITECTURE
SIGNED FOR PUBLICATION
SIGN BRIDGE FOUNDATION - SEE STANDARD PLAN G-70.30 & G-70.33

STANDARD PLAN G-70.10-03

APPROVED FOR PUBLICATION
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WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
HEMISPHERICAL POST FINIAL, 1/8" (IN) MIN. THICKNESS. INSTALL AFTER GALVANIZING.

3/8" (IN) ALLEN HOLLOW SET SCREW WITH DOG POINT (TYP.) (CORROSION RESISTANT METAL OR COATING) AT 90° INTERVALS.

BEND FOR SNUG FIT.

PLATE = 1/8" (IN) MIN.

5/8" (IN) x 1/2" (IN) SLOT FOR 3/8" (IN) ALLEN SET SCREW.

ELEVATION OF SPAN BETWEEN COMPLETED FOUNDATIONS.

SYMMETRICAL ABOUT END POST AND CHORD.

HORIZONTAL DIAGONAL CONNECTION WHEN ALTERNATE JOINT DETAIL IS USED – SEE DETAIL, SHEET 3.

3/8" (IN) ALLEN HOLLOW SET SCREW WITH DOG POINT (TYP.) (CORROSION RESISTANT METAL OR COATING) AT 90° INTERVALS.

1/2" (IN) DIAM. STEEL BOLT, 1 1/2" (IN) LONG, WITH WASHER AND NUT FOR GROUND.

ROUND AND SMOOTH INSIDE EDGES.

HAND HOLE FRAME.

REMOVABLE RAINTIGHT HAND HOLE COVER WITH GASKET – FASTEN WITH TWO STAINLESS STEEL (ASTM F 693) SCREWS.

DRILL AND TAP WALL FOR 3/8" (IN) ALLEN SET SCREW.

ELEVATION OF FINIAL AND POST.

SECTION THROUGH HAND HOLE FRAME.

HAND HOLE COVER WITH GASKET – FASTEN WITH TWO STAINLESS STEEL (ASTM F 693) SCREWS.

FABRICATE FROM W8x40.

END POST.

15/16" (IN) DIAM. HOLE (TYP.)

CHORD TO END POST CONNECTION TYPE Q
USED WHERE NO DIAGONALS CONNECT
OMITTING THE 3/4" PLATE STIFFENER ON THE TEE MEMBER.

CHORD TO END POST CONNECTION TYPE R
USED WHERE DIAGONALS CONNECT
DRILLED HOLE IN CHORD AT EACH DIAGONAL AND STRUT SHALL BE 1" (IN) DIAMETER FOR SPANS OVER 60' (FT) - FOR SPANS 60' (FT) OR LESS, DIAMETER SHALL BE 3/4" (IN). END OF DIAGONALS SHALL BE CUT TO FIT NEATLY AGAINST CHORD OR POST. FILLET WELD SIZE TO BE DIAGONAL TUBE OR PIPE THICKNESS PLUS 1/16" (IN).

INTERIOR DIAGONAL - WHERE REQUIRED

3" (IN) SLOT IN HORIZONTAL DIAGONAL FOR PLATE (SEE NOTE 4) - NOT SHOWN FOR CLARITY.

INTERIOR DIAGONAL SHALL BE SLOTTED FOR GUSSET

HORIZONTAL DIAGONAL WHEN ALTERNATE JOINT DETAIL IS USED

INTERIOR DIAGONAL WHEN REQUIRED (SEE TRUSS ELEVATION)

3/16" (IN) GUSSET PLATE

TOP

DIAMETER OF HOLE IN FLANGE 1/16" (IN) LARGER THAN CHORD OUTSIDE DIAMETER

3/16" (IN) GUSSET PLATE

TOP

BOLT K
F BOLT CIRCLE

END POST OR CHORD SHOP SPLICE

NO POST SPLICES PERMITTED IN LOWER THIRD OF HEIGHT, NOR CLOSER THAN 3", 0" TO BOTTOM OF CHORD. NO CHORD SHOP SPLICES PERMITTED IN MIDDLE THIRD OF SPAN. MAXIMUM OF ONE SPLICE IN EACH END POST.

END POST EQUAL CHORD THICKNESS OR 1/4" (IN), WHICHERVE IS LESS.

DIMENSION SHALL EQUAL CHORD THICKNESS OR 1/4" (IN) OR LESS.

END POST OR CHORD SHOP SPLICE

NO POST SPLICES PERMITTED IN LOWER THIRD OF HEIGHT. NO CHORD SHOP SPLICES PERMITTED IN MIDDLE THIRD OF SPAN. MAXIMUM OF ONE SPLICE IN EACH END POST.

INTERIOR DIAGONAL - WHERE REQUIRED

VERTICAL DIAGONALS AND CHORDS

NO POST SPLICES PERMITTED IN MIDDLE THIRD OF SPAN.

MAXIMUM OF ONE SPLICE IN EACH END POST.

FOR SPAN LENGTHS NOT LISTED, INTERPOLATE VALUES OF ▲.

FABRICATE TRUSS WITH CHORDS CURVED TO PROVIDE CAMBER.

DO NOT CAMBER BY USING SHIMS BETWEEN CHORDS AT SPLICES.

DEAD LOAD CAMBER

SIGN BRIDGE (TRUSS-TYPE)

STANDARD PLAN G-70.10-03

SHEET 3 OF 4 SHEETS

APPROVED FOR PUBLICATION

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