1. No more than one W10 x 19 or larger post can be used in a 7'-0" path. No more than two W8 x 18 or smaller posts can be used in a 7'-0" path.

2. For 3 post installation, the edge of sign to post is 1/6 width of sign and 1/3 width of sign between posts.


4. The distance from the top of the fuse plate to the bottom of the sign shall be the same for all posts.

5. See Standard Drawing E 802-SNGP-07 for required stub length.


SIGN PLACEMENT
Double Support Sign (Large)

30' desirable

7'-0" Min.

6'-0" Min.

Stabilized shoulder

Perforated fuse plate

Perforated fuse plate

SECTION B-B

NOTES:

DETAIL A

SIGN PLACEMENT

Post
Flange holes for hinge shall be drilled or sub-punched and reamed
Perforated Fuse Plate
Cut

Perforated Fuse Plate
H.S. Bolts Bearing Type
Flat Washers

3" ± 2"

Cut flange and web

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN PLACEMENT

SEPTEMBER 2013

STANDARD DRAWING NO. E 802-SNGP-01

/s/ Alfredo B. Hanza 02/05/13
DESIGN STANDARDS ENGINEER DATE

/s/ Mark A. Miller 03/27/13
CHIEF ENGINEER DATE
PROCEDURE FOR ASSEMBLY OF BASE CONNECTION:

Assemble post to stub with bolts. One flat washer on each bolt shall be placed between the top of the keeper plate and bottom of the plate. Shim as required to plumb post.

Tighten all bolts the minimum possible with 12" to 25" wrench to bed washers and shims and to clean bolt threads, then loosen each bolt in turn and retighten bolts in a systematic order to the prescribed torque. See table on Standard Drawing E 832-SNGP-05 for dimensions.

Burr threads at junction with nuts using a center punch to prevent nut loosening.

Studs shall be plumb and base plate shall be leveled and physically held level until the concrete sets.
NOTES:

1. Required for sign width greater than 24'.
PERFORATED FUSE PLATE DETAIL

BASE PLATE DETAIL

SHIM DETAIL

<table>
<thead>
<tr>
<th>BOLT DIAMETER</th>
<th>L</th>
<th>W</th>
<th>N</th>
<th>R</th>
<th>S</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8&quot; to 3/8&quot;</td>
<td>1/2&quot;</td>
<td>1/2&quot;</td>
<td>1</td>
<td>1</td>
<td>1/8&quot;</td>
<td>1/8&quot;</td>
</tr>
<tr>
<td>1&quot;</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1/4</td>
<td>1/8&quot;</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes:
1. See note on Standard Drawing E 802-SINGP-04 for dimensions and weight of stiffener plate and base plate.
2. See note on Standard Drawing E 802-SINGP-04 for dimensions and weight of perforated base plate.
3. Use H.S. bolts with hex head, 8 hex nut, one flat washer under each bolt head and beveled or flat washer (where required) under nut.
4. Dimensional tolerances excluding the thickness for shims is ± 1/32".

STIFFENER PLATE DETAIL

SIGNED DETAILS

INDIANA DEPARTMENT OF TRANSPORTATION

SEPTMBER 2004

STANDARD DRAWING NO. E 802-SINGP-04

PARISH 2-0.012 ± thick and 2-0.05 ± thick shims per post.

SHIM DETAIL
## BASE PLATE & STIFFENER PLATE DATA TABLE

<table>
<thead>
<tr>
<th>Post Size</th>
<th>Bolt Size</th>
<th>Torque in. - lb</th>
<th>Wt. of 4 Plates (One Post), lb</th>
<th>Wt. of 4 Stiffeners (One Post), lb</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>R</th>
<th>d4</th>
<th>t1</th>
<th>t2</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>W6 x 9</td>
<td>¼&quot; Ø × 2 ½&quot;</td>
<td>140</td>
<td>5.10</td>
<td>3.33</td>
<td>4 ¼&quot;</td>
<td>2&quot;</td>
<td>1 ¼&quot;</td>
<td>2 ¼&quot;</td>
<td>1&quot;</td>
<td>9/32&quot;</td>
<td>15/64&quot;</td>
<td>½&quot;</td>
<td>⅜&quot;</td>
<td>⅝&quot;</td>
</tr>
<tr>
<td>W8 x 10</td>
<td>½&quot; Ø × 2 ½&quot;</td>
<td>300</td>
<td>8.38</td>
<td>4.07</td>
<td>5&quot;</td>
<td>2 ½&quot;</td>
<td>1 ½&quot;</td>
<td>2 ½&quot;</td>
<td>1 ¼&quot;</td>
<td>11/32&quot;</td>
<td>13/32&quot;</td>
<td>3/16&quot;</td>
<td>3/8&quot;</td>
<td>3/16&quot;</td>
</tr>
<tr>
<td>W8 x 13</td>
<td>¾&quot; Ø × 3&quot;</td>
<td>500</td>
<td>12.6</td>
<td>7.97</td>
<td>6&quot;</td>
<td>2 ¼&quot;</td>
<td>3 ¼&quot;</td>
<td>3 ½&quot;</td>
<td>1 ¼&quot;</td>
<td>13/32&quot;</td>
<td>3/16&quot;</td>
<td>¼&quot;</td>
<td>⅛&quot;</td>
<td>⅛&quot;</td>
</tr>
<tr>
<td>W8 x 15</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>W8 x 18</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>W10 x 19</td>
<td>1&quot; Ø × 3 ½&quot;</td>
<td>700</td>
<td>14.04</td>
<td>8.68</td>
<td>2 ¼&quot;</td>
<td>1 ½&quot;</td>
<td>3 ¼&quot;</td>
<td>3 ½&quot;</td>
<td>1 ¼&quot;</td>
<td>17/32&quot;</td>
<td>3/16&quot;</td>
<td>¼&quot;</td>
<td>⅛&quot;</td>
<td>⅛&quot;</td>
</tr>
</tbody>
</table>
## PERFORATED FUSE PLATE DATA TABLE

| Post Size | BOLT SIZE | WT of Plate* (One Post), lb | F | G | J | K | L | M | d₁ | d₂ | t₃ | Bolt Tension, lbs |
|-----------|-----------|-----------------------------|---|---|---|---|---|---|----|----|----|----------------|------------------|
| W5 x 9    | 1/2 x 1 1/2 * | 1.01 | 4 1/4 * | 2 * | 4 * | 2 1/4 * | 7/8 * | 1 * | 3/16 * | 3/4 * | 1/4 * | 12000 |
| W6 x 10   | 1/2 x 1 1/2 * | 1.01 | 4 1/4 * | 2 * | 4 * | 2 1/4 * | 7/8 * | 1 * | 3/16 * | 3/4 * | 1/4 * | 12000 |
| W8 x 13   | 1/2 x 1 1/2 * | 1.01 | 4 1/4 * | 2 * | 4 * | 2 1/4 * | 7/8 * | 1 * | 3/16 * | 3/4 * | 1/4 * | 12000 |
| W8 x 15   | 3/8 x 2 1/4 * | 1.72 | 5 * | 2 1/2 * | 4 * | 2 1/4 * | 7/8 * | 1 * | 11/16 * | 3/4 * | 5/8 * | 15000 |
| W8 x 18   | 3/8 x 2 1/4 * | 2.27 | 5 * | 2 1/2 * | 5 1/4 * | 2 3/4 * | 1 1/4 * | 1 3/4 * | 11/16 * | 1 1/8 * | 5/8 * | 15000 |
| W10 x 19  | 3/8 x 2 1/4 * | 1.72 | 5 * | 2 1/2 * | 4 * | 2 1/4 * | 7/8 * | 1 * | 11/16 * | 3/4 * | 5/8 * | 15000 |

* Gross weight with holes deducted from weight. Incidental weights of bolts and washers are not included in plain quantities.

### NOTES:

1. See Standard Drawing E 802-SNGP-01 through 07 for details and notes for posts, bolts, washers, etc.
<table>
<thead>
<tr>
<th>Type</th>
<th>Post Size</th>
<th>Stub Length</th>
<th>Dia.</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>VII</td>
<td>W6 x 9</td>
<td>2'-0</td>
<td>20&quot;</td>
<td>5'</td>
</tr>
<tr>
<td>VIII</td>
<td>W8 x 10</td>
<td>2'-0</td>
<td>20&quot;</td>
<td>5'</td>
</tr>
<tr>
<td>IX</td>
<td>W6 x 13</td>
<td>2'-0</td>
<td>20&quot;</td>
<td>5'</td>
</tr>
<tr>
<td>X</td>
<td>W8 x 15</td>
<td>2'-6</td>
<td>24&quot;</td>
<td>6'</td>
</tr>
<tr>
<td>XI</td>
<td>W8 x 18</td>
<td>2'-6</td>
<td>24&quot;</td>
<td>6'</td>
</tr>
<tr>
<td>XII</td>
<td>W10 x 19</td>
<td>2'-6</td>
<td>24&quot;</td>
<td>7'</td>
</tr>
</tbody>
</table>
NOTES:
① R6-3a shall be used in place of R6-3 at tee intersection.
② "Stop Ahead" sign may be required if there is determined to be poor observation of the "Stop" sign. See plans for locations.
③ Sign not required for tee intersection.
NOTES:

1. R6-3a shall be used in place of R6-3 at tee intersection.

2. "Stop Ahead" sign may be required if there is determined to be poor observation of the "Stop" sign. See plans for locations.

3. Sign not required for tee intersection.

INDIANA DEPARTMENT OF TRANSPORTATION

SIGN PLACEMENT
SEPTEMBER 2010

STANDARD DRAWING NO. E 802-SNGP-12

Design Standards Engineer

Chief Highway Engineer

Date: 09/01/10
THROUGH ROUTE INTERSECTION WITH PUBLIC ROAD CROSSOVER WITHOUT TURN LANES, MEDIAN WIDTH ≥ 30 ft.

NOTES:
1. R6-3a shall be used in place of R6-3 at tee intersection.
2. "Stop Ahead" sign may be required if there is determined to be poor observation of the "Stop" sign. See plans for locations.
3. Sign not required for tee intersection.
4. Sign shall be placed on centerline of public road approach for tee intersection.
NOTES:

1. R6-3a shall be used in place of R6-3 at tee intersection.
2. "Stop Ahead" sign may be required if there is determined to be poor observation of the "Stop" sign. See plans for locations.
3. Sign not required for tee intersection.
4. Sign shall be placed on centerline of public road approach for tee intersection.

THROUGH ROUTE INTERSECTION WITH PUBLIC ROAD CROSSOVER WITH TURN LANES, MEDIAN WIDTH ≥ 30 ft.