**REINFORCED-CONCRETE FILLED EPOXY-COATED STEEL PIPE PILE ENCASEMENT PLAN VIEW**

**SECTION A-A**

- **Top of pile**
- **Epoxy coated steel pipe pile limits**
- **Flow line**
- **Limits of reinforcing bars**
- **Plain steel pipe pile encasement**
- **Bottom of pipe pile (end plate not shown)**

**TABLE OF MATERIALS**

<table>
<thead>
<tr>
<th>Steel H-Pile designation</th>
<th>Minimum pile diameter (ft)</th>
<th>Reinforcing bars, lb/ft</th>
<th>Class A concrete, yd³/ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP 14</td>
<td>2'-3&quot;</td>
<td>5.8</td>
<td>0.12</td>
</tr>
<tr>
<td>HP 12</td>
<td>2'-0&quot;</td>
<td>5.6</td>
<td>0.10</td>
</tr>
<tr>
<td>HP 10</td>
<td>1'-9&quot;</td>
<td>5.4</td>
<td>0.08</td>
</tr>
</tbody>
</table>

**STEEL H - PILES**

- 6 - #4 bars (equally spaced)
- 2" cl.

**1/4" Ø spiral with 6" pitch**

- Class A concrete

**14" Ø epoxy-coated steel pipe pile**

- See Section A-A for epoxy coating limits.

**REINFORCED-CONCRETE ENCASEMENT PLAN VIEW**

- **Flow line**
- **Plain concrete**
- **1/4" Ø spiral reinforcement**
- **6 - #6 bars (equally spaced)** (9.0 lb/ft)

**Flow line**

- Plain steel pipe pile encasement
Burn four equally spaced slots in lower section before inserting extension.

Weld shall be ground flush with exterior pile face.

FOR FLUTED PIPE

FOR ROUNDED PIPE

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
<th>Section 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; (typ.)</td>
<td>3/16&quot;</td>
<td>6&quot; min. lap</td>
<td>1/4&quot;</td>
</tr>
</tbody>
</table>

WELDING DETAILS

WELDING SEQUENCE

INDIANA DEPARTMENT OF TRANSPORTATION
FIELD SPLICING PIPE PILES
SEPTEMBER 2012
STANDARD DRAWING NO. E 701-BPIL-02

/s/ Richard L. VanCleave 09/04/12
SUPERVISOR, ROADWAY STANDARDS
DATE

/s/ Mark A. Miller 09/04/12
CHIEF ENGINEER
DATE
**PROCEDURE FOR SPlicing PARtially Driven Piling**

1. **Upper Pile Section**
   Prepare outside of both flanges and one side of web by beveling to a 45° angle. Prepare all surfaces to be welded by grinding.

2. **Lower Pile Section**
   Prepare top of pile by restoring it to its original cross section. Grind all surfaces to be welded, extending 1/2" beyond weld area(s).

3. **Upper Pile Section**
   Fillet weld web splice plate to upper pile section at two locations.

4. **Lower Pile Section**
   Tack weld two backer plates to inside of flange.

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**NOTES**

1. Steel H piling may be spliced in a horizontal position prior to driving, using splice plates and web and flange welds as shown.
2. Two flange splice plates, one web splice plate, and four backer plates will be required per splice.
3. All fillet welds shall be single pass.
4. See table for splice plate dimensions W and F.

**SPLICE PLATE AND BACKER PLATE DIMENSIONS**

<table>
<thead>
<tr>
<th>H-PILE SIZE</th>
<th>HP 10</th>
<th>HP 12</th>
<th>HP 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flange Splice Plate, F</td>
<td>7&quot;</td>
<td>8 1/4&quot;</td>
<td>10 1/4&quot;</td>
</tr>
<tr>
<td>Web Splice Plate, W</td>
<td>5 3/8&quot;</td>
<td>6 3/4&quot;</td>
<td>8&quot;</td>
</tr>
<tr>
<td>Backer Plate Length, L</td>
<td>4 1/8&quot;</td>
<td>5&quot;</td>
<td>6 1/4&quot;</td>
</tr>
</tbody>
</table>

**NOTE:** Splice plate thickness = 3/8"
Backer plate thickness = 1/4"

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**INDIANA DEPARTMENT OF TRANSPORTATION**

**STEEL H-PILE SPLICE**

**SEPTEMBER 2012**

**STANDARD DRAWING NO.** E 701-BPIL-03

**DATE** 09/04/12

**CHIEF ENGINEER** /s/ Mark A. Miller 09/04/12

**SUPERVISOR, ROADWAY STANDARDS** /s/ Richard L. VanCleave 09/04/12

**REMARKS**

Procedure continued on Standard Drawing E 701-BPIL-04.
PROCEDURE FOR SPLICING PARTIALLY DRIVEN PILING (cont.)

5. Combine Pile Sections
Lift and hold upper pile section into place, maintaining 1/4" gap between upper and lower pile sections by using the remaining two backer plates as a spacing guide. Plumb the pile. Tack weld the untacked side of the two backer plates to the inside upper flange. Remove the backer plate spacers and tack weld them to the inside flange portion of the upper and lower sections of the pile. Fillet weld the remaining two sides of the web splice plate to the lower section.

6. Combined Pile Section
Complete Joint Penetration (CJP) weld the web. See Detail A.

7. Combined Pile Section
Complete Joint Penetration (CJP) weld both flanges. Grind weld smooth with the pile exterior face. See Detail B.

8. Combined Pile Section
Fillet weld the flange splice plates to the flanges.

NOTES
1. Steel H-piling may be spliced in a horizontal position prior to driving, using splice plates and web and flange welds as shown.
2. Two flange splice plates, one web splice plate, and four backer plates will be required per splice.
3. All fillet welds shall be single pass.
4. See Standard Drawing E 701-BPIL-03 table for splice plate dimensions W and F.