1. Work this Index with the Pile Data Table in the Structures Plans.
2. Concrete:
   A. Piles: Class V (Special)
   B. Splice Collar: Class IV
   C. Silica Fume: See "GENERAL NOTES" in the Structures Plans for locations where the use of silica fume, metakaolin or ultra-fine flyash is required.
3. Concrete Strength at time of prestress transfer:
   A. Piles: 4,000 psi minimum.
4. Reinforcing:
   A. Bars:
      a. Stainless Steel: Meet the requirements of Specification Section 931 for Type 304, Grade 75.
      b. Carbon FRP: Meet the requirements of Specification Section 932.
   B. Prestressing Strands:
      a. Stainless Steel: Seven-wire HSSS, UNS S32205 (Type 2205) or UNS S31803 strand, meeting the requirements of Specification Section 933.
      b. Carbon FRP: Meet the requirements of Specification Section 933.
   C. Spiral Ties:
      a. One half turn is required for carbon steel spiral splice.
      b. One full turn is required at the pile head and tip.
5. Pile Splices:
   A. Epoxy: Type AB Epoxy Compound or Epoxy Mortar must meet the requirements of Specification Section 910.
      a. Use a Type AB Epoxy Bonding Compound or Epoxy Mortar, as recommended by the Manufacturer, to form the joint between pile sections.
      b. Use a Type AB Epoxy Bonding Compound as a bonding agent on internal pile surfaces.
   B. Splices: Resume pile driving after the splice concrete reaches a minimum strength of 5,500 psi.
6. Mark piles at the pick-up points to indicate the proper points for attaching handling lines.

*The 45° Ø Void in the pile shall be positively vented to water or air after the final pile installation. If the 3½° Ø vents are included in the pile cut-off section, then venting shall be provided by the use of a 1° Ø PVC conduit through the substructure cap or column.

**TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS**

<table>
<thead>
<tr>
<th>Maximum Pile Length (Feet)</th>
<th>Required Storage and Transportation Detail</th>
<th>Pick-Up Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>122</td>
<td>2, 3, or 4 point</td>
<td>1 Point</td>
</tr>
<tr>
<td>174</td>
<td>2, 3, or 4 point</td>
<td>2 Point</td>
</tr>
</tbody>
</table>

**NOTES**

14'-10" 10'-2"
**Concrete Seal**

2'-0" M in . C o v e r  D r i v e n  P r e s t r e s s e d  P i l e

10'-6"

**Spliced Prestressed Pile Section**

10'-6"

1'-0" Ø Void, open top and bottom to allow through venting of sections

Roughen inside surface of 60" Ø Pile to 1/4" amplitude for Spliced Pile Section

Closed No. 4 CFRP Bars or 0.3" Ø CFRP Strand Ties @ 1'-0" ± (Typ.)

Full Epoxy Compound Joint around cylinder pile wall only (See Detail "A")

24 - No. 6 CFRP Bars

Clean inside surface of 60" Ø Pile with a high pressure water blast (3000 psi Min.) and apply bonding agent for Driven Prestressed Pile

Concrete Seal

**Drivable Unforeseen Field Splice Detail** (Cast in Place Plug)

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**SECTION A-A**

60" Ø

No. 3 Bars or 0.3" Ø CFRP Strand Spiral Ties

3" Min. Cover (Typ.)

36 - CFRP Strands @ Equal Spaces

**SECTION B-B**

60" Ø

No. 3 Bars or 0.3" Ø CFRP Strand Spiral Ties

24 - No. 6 CFRP Bars @ Equal Spaces

2" Min. Cover (Typ.)

Cast in Place Plug

36 - CFRP Strands @ Equal Spaces

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**ALTERNATE STRAND PATTERNS**

0.3" Ø, CFRP Single-Strand, at 39 kips
0.6" Ø, CFRP 7-Strand, at 40 kips

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**DETAIL "A"**

Inside Pile Wall

Full epoxy compound joint

Temporary Blocking

Form to retain epoxy compound

Gasket

Form to retain epoxy compound

Outside Pile Wall

---

**60" PRESTRESSED CFRP & SS CONCRETE CYLINDER PILE**

**INDEX 455-160**
Concrete Seal

1'-0" Ø Void, open top and bottom to allow through venting of sections

Clean inside surface of 60" Ø Pile with a high pressure water blast (3000 psi Min.) and apply bonding agent for Driven Prestressed Pile

Roughen inside surface of 60" Ø Pile to 1'-0" ± amplitude for Spliced Pile Section

Closed No. 4 SS Bars or W20 SS Wire Ties @ 1'-0" ± (Typ.)

Full Epoxy Compound Joint around cylinder pile wall only (See Detail "A")

24 - No. 10 SS Bars

Concrete Seal

Drivable Unforeseen Field Splice Detail (Cast in Place Plug)

SECTION A-A

ALTERNATE STRAND PATTERNS

44 - 0.6" Ø HSSS Strand, at 36 kips
36 - 0.6" Ø HSSS Strand, at 36 kips

SECTION B-B