1. Work this Index with the Pile Data Table in the Structures Plans.
2. Concrete:
   A. Piles: Class V (Special)
   B. Splice: Class IV
   C. Silica Tufse: See "GENERAL NOTES" in Structures Plans for locations where the use of silica tufse, metakaolin or ultra-fine flyash is required for options using stainless steel strand and reinforcing.
3. Concrete Strength at time of prestress transfer:
   A. Piles: 6,000 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 Mortar must meet the requirements of Specification Section 926.
      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. Driving: Resume pile driving after 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.
**Outside Pile Wall**
Form to retain epoxy compound.

**Inside Pile Wall**
Temporary Blocking Form to retain epoxy compound.

Gasket

**Cover (Typ.)**

1'-0" Min.

**Lap Splice**
Cast in Place Plug

**Cover (Typ.)**

**24 ~ 1" Ø Formed Holes**

For Tendons @ Equal Spaces

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

**Concrete Seal**

2'-0"

3" Min. Cover

**Driven Precast/Post-Tensioned Pile**

**10'-6"**

3" Min. Cover

**Roughen inside surface of 54" Ø Pile to 1" amplitude for Spliced Pile Section**

**Closed No. 4 CFRP Bars or 0.3" Ø CFRP Strand Spiral Ties @ 1" = (Typ.)**

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

**31/2" Ø Void**

**3" Min. * Cover (Typ.)**

**24 ~ No. 6 CFRP Bars**

**SECTION A-A**

**ALTERNATE STRAND PATTERNS**
48 ~ 0.5" Ø, Single-Strand, at 28 kips
48 ~ 0.6" Ø, 7-Strand, at 29 kips

**1" Ø Formed Hole (1 tendon per hole; 2 ~ CFRP Strands per tendon shown as [*]); Grout per Specification 938)**

Clean inside surface of 54" Ø Pile with a high pressure water blast (3000 psi Min.) and apply bonding agent for Driven Prestressed Pile

**Concrete Seal**

**DETAIL "A"**

* For Spun Cast Cylinder Piles, the following requirements for concrete cover apply:
  1. Slightly or Moderately Aggressive Environments: The concrete cover may be reduced to 2 inches.
  2. Extremely Aggressive Environments: The concrete cover may be reduced to 2 inches as long as the concrete has a documented chloride ion penetration apparent diffusion coefficient with a mean value of 0.005 in per year or less; otherwise, a 3-inch concrete cover is required.
**Outside Pile Wall**
- Form to retain epoxy compound

**Inside Pile Wall**
- Temporary Blocking
- Form to retain epoxy compound

**Gasket**
- Cover (Typ.)

**W20 Wire Ties**
- No. 4 Bars or 1'-0" Min.
- Lap Splice

**W11 Spiral Wire Ties**
- 4 ~ Longitudinal Spacers (No. 3 Bars or W11 wire) for Spiral Ties @ Equal Spaces

**SECTION A-A**
- 24 ~ No. 10 Bars @ Equal Spaces
- Cast in Place Plug Cover (Typ.)
- 3 Min. +

**SECTION B-B**
- 1½" Ø Formed Holes for Tendons @ Equal Spaces
- 1½" Ø Formed Holes (1 tendon per hole; 2 or 3 Strands per tendon shown as (●) See Alternate Strand Patterns; Grout per Specification 938)

**ALTERNATE STRAND PATTERNS**
- 72 ~ ½" Ø, HSSS Strands, at 21 kips (24~3 strand tendons)
- 58 ~ ½" Ø, HSSS Strands, at 24 kips (29~2 strand tendons)
- 48 ~ 0.6" Ø, HSSS Strands, at 32 kips (24~2 strand tendons)

**DETAIL "A"**
- For Spin Cast Cylinder Piles, the following requirements for concrete cover apply:
  1. Slightly or Moderately Aggressive Environments: The concrete cover may be reduced to 2 inches.
  2. Extremely Aggressive Environments: The concrete cover may be reduced to 2 inches as long as the concrete has a documented chloride ion penetration apparent diffusion coefficient with a mean value of 0.005 in^2/ year or less; otherwise, a 3-inch concrete cover is required.

**DRIVABLE UNFORESEEN FIELD SPLICE DETAIL**
- (Cast-in-Place Plug)

**Concrete Seal**
- Roughen inside surface of 54" Ø Pile to ½" amplitude for Spliced Pile Section

**Closed No. 4 Bars or W20 Wire Ties @ 1'-0" ± (Typ.)**
- Full Epoxy Compound Joint around cylinder pile wall only (See Detail "R")

**Clean inside surface of 54" Ø Pile with a high pressure water blast (3000 psi Min.) and apply bonding agent for Driven Prestressed Pile**

**Specifications:**
- 1" Ø Void, open top and bottom to allow through venting of sections
- 3" Min. *
- 1" Ø Void

* For Spin Cast Cylinder Piles, the following requirements for concrete cover apply:
  1. Slightly or Moderately Aggressive Environments: The concrete cover may be reduced to 2 inches.
  2. Extremely Aggressive Environments: The concrete cover may be reduced to 2 inches as long as the concrete has a documented chloride ion penetration apparent diffusion coefficient with a mean value of 0.005 in^2/ year or less; otherwise, a 3-inch concrete cover is required.