

ELEVATION

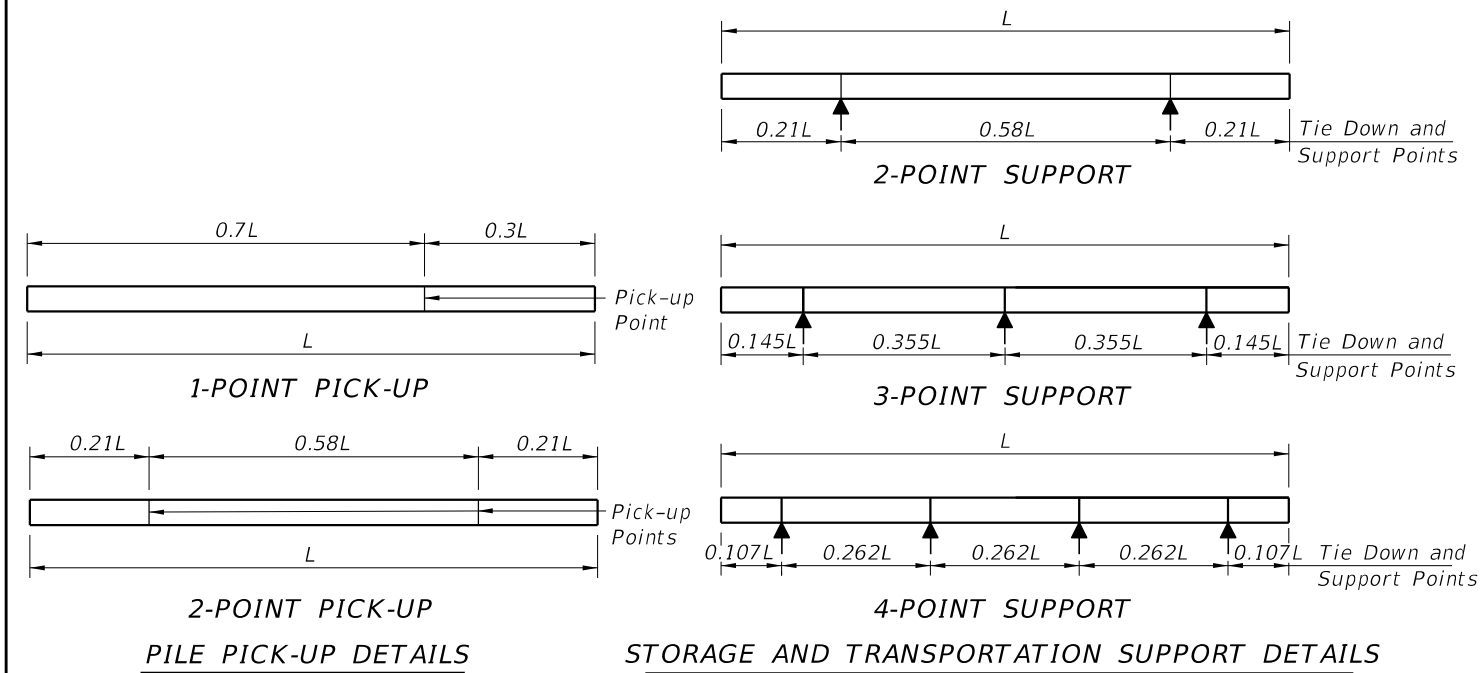


TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS		
Maximum Pile Length (Feet)	Required Storage and Transportation Detail	Pick-Up Detail
119	2, 3, or 4 point	1 Point
170	2, 3, or 4 point	2 Point

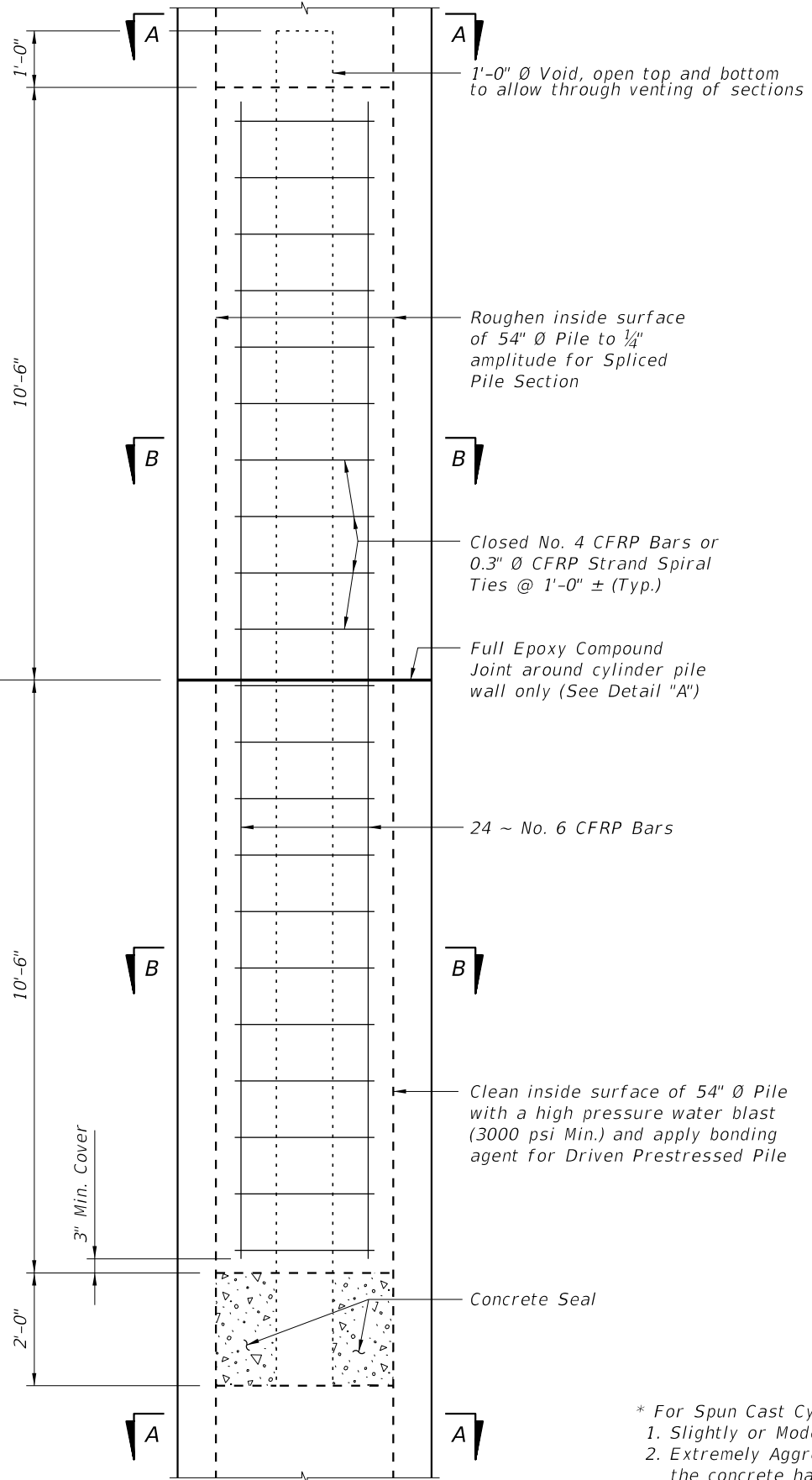
NOTES

- Work this Index with the Pile Data Table in the Structures Plans.
- Concrete:
  - Piles: Class V (Special)
  - Splice: Class IV
  - Silica Fume: See "GENERAL NOTES" in Structures Plans for locations where the use of silica fume, metakaolin or ultra-fine flyash is required for options using stainless steel strand and reinforcing.
- Concrete Strength at time of prestress transfer:
  - Piles: 6,000 psi minimum.
- Reinforcing:
  - Bars:
    - Stainless Steel: Meet the requirements of Specification Section 931 for Type 304, Grade 75.
    - Carbon FRP: Meet the requirements of Specification Section 932.
  - Prestressing Strands:
    - Stainless Steel: Seven-wire HSSS, UNS S32205 (Type 2205) or UNS S31803 strand, meeting the requirements of Specification Section 933.
    - Carbon FRP: Meet the requirements of Specification Section 933.
  - Spiral Ties:
    - One half turn is required for carbon steel spiral splice.
    - One full turn is required at the pile head and tip.
- Pile Splices:
  - Epoxy: Type AB Epoxy Compound or Mortar must meet the requirements of Specification Section 926.
    - Use a Type AB Epoxy Bonding Compound or Epoxy Mortar, as recommended by the Manufacturer, to form the joint between pile sections.
    - Use a Type AB Epoxy Bonding Compound as a bonding agent on internal pile surfaces.
  - Driving: Resume pile driving after splice concrete reaches a minimum strength of 5,500 psi.
- Mark piles at the pick-up points to indicate the proper points for attaching handling lines.

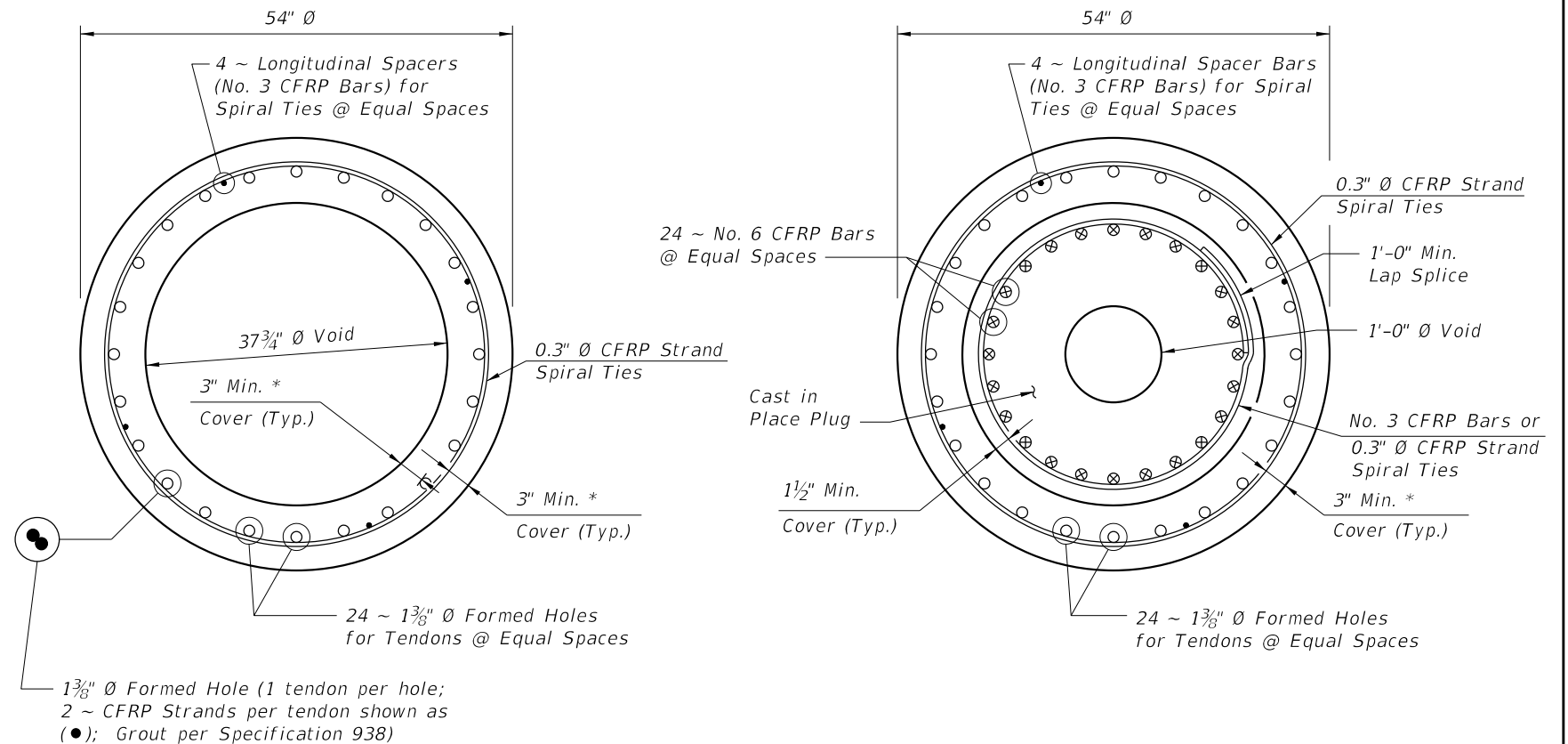
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Spliced Precast/Post-Tensioned Pile Section

Driven Precast/Post-Tensioned Pile



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

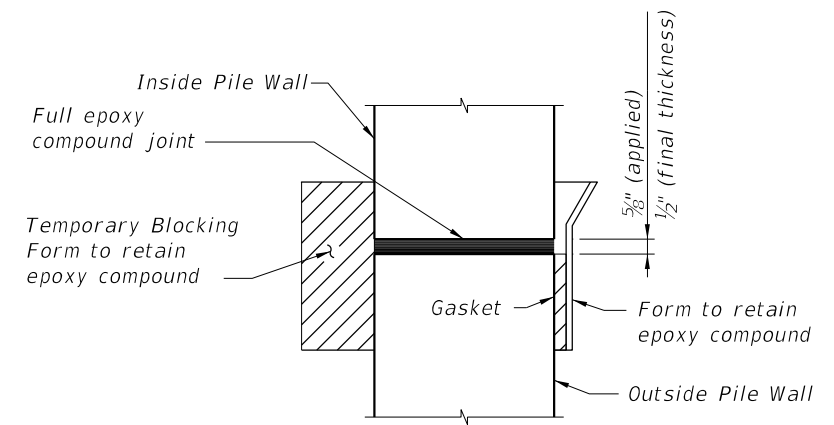


**SECTION A-A**

**SECTION B-B**

**ALTERNATE STRAND PATTERNS**

- 48 ~ 0.5" Ø, Single-Strand, at 28 kips
- 48 ~ 0.6" Ø, 7-Strand, at 29 kips



**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<sup>2</sup> per year or less; otherwise, a 3-inch concrete cover is required.

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LAST REVISION	01/01/16	DESCRIPTION:
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FY 2019-20  
STANDARD PLANS

54" PRECAST/POST-TENSIONED CFRP & SS  
CONCRETE CYLINDER PILE

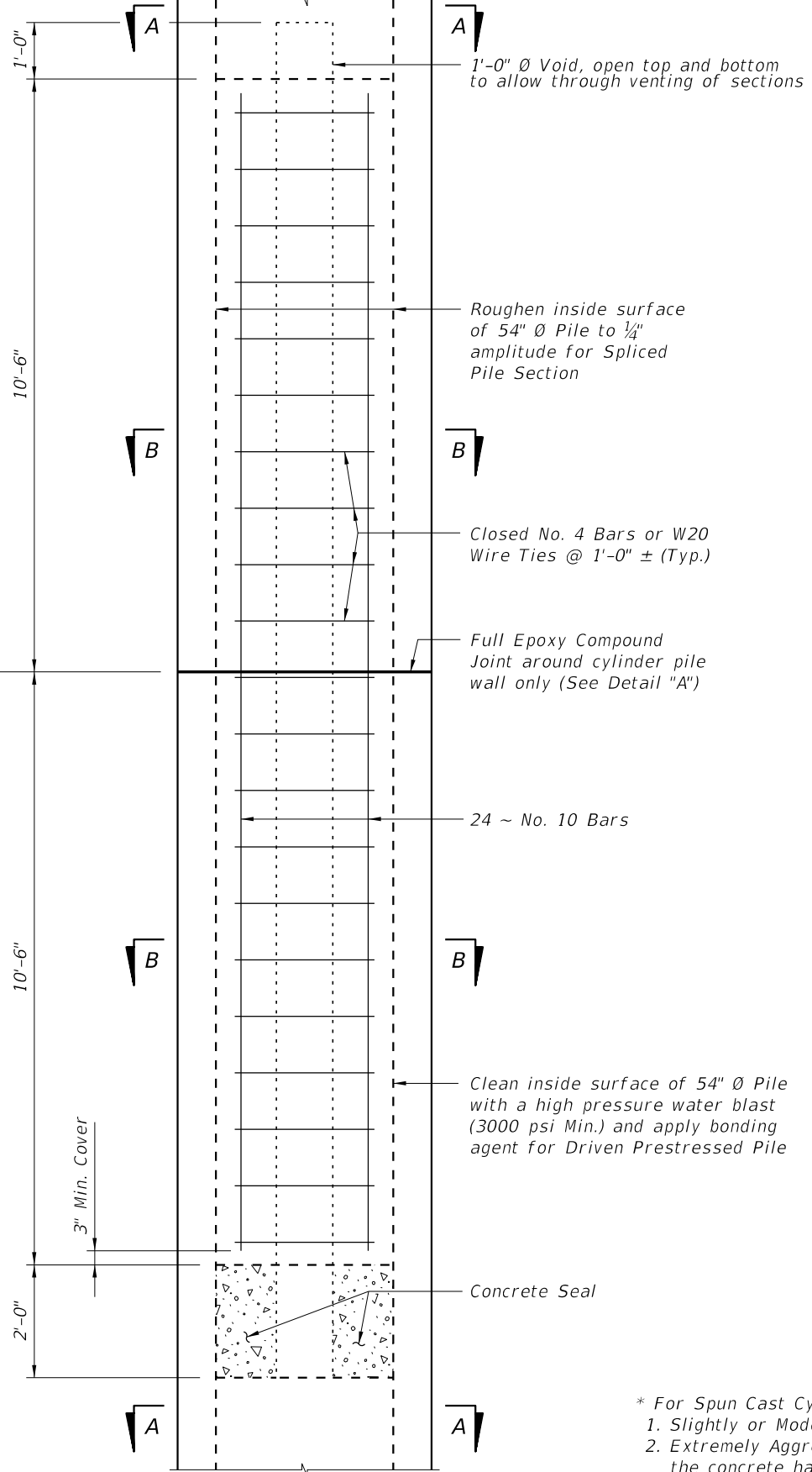
INDEX  
455-154

SHEET  
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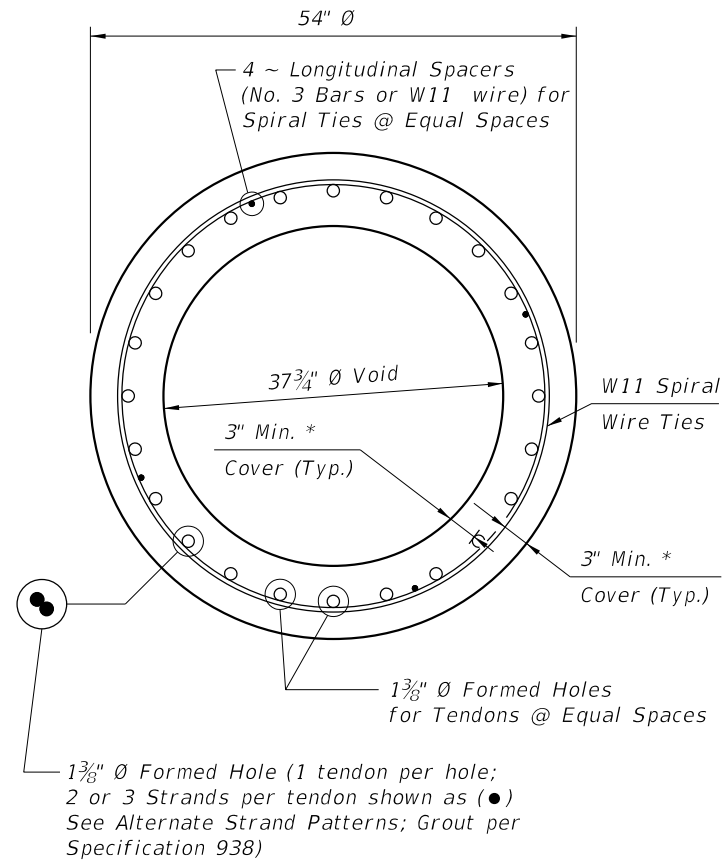
CFRP POST-TENSIONED PILE DETAILS

Spliced Precast/Post-Tensioned Pile Section

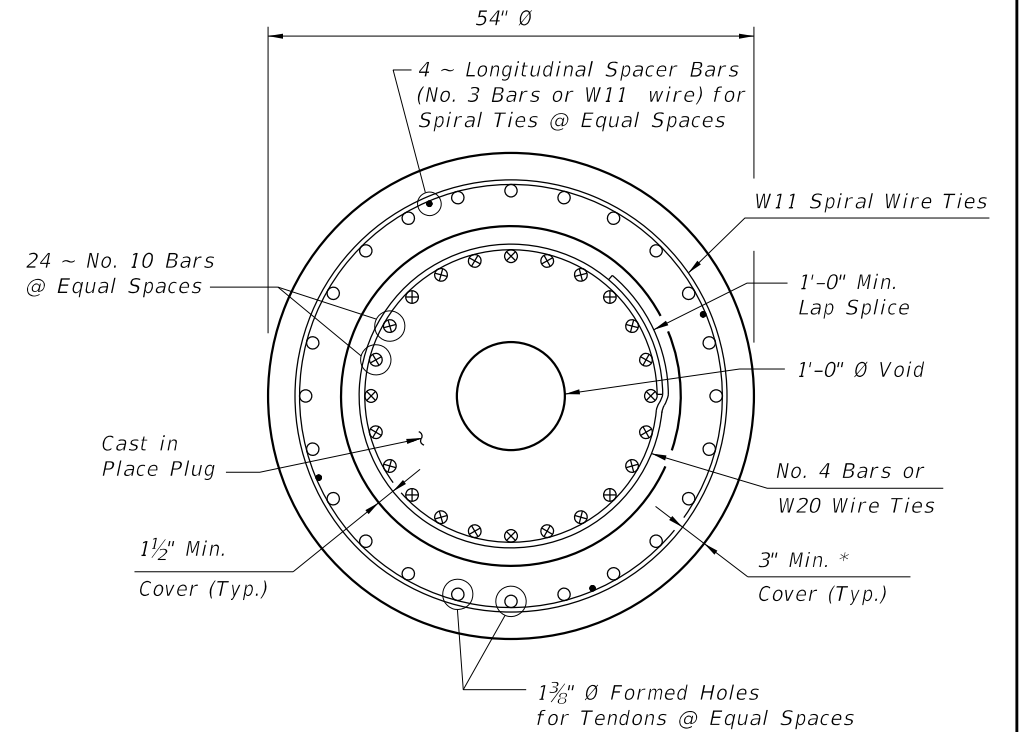
Driven Precast/Post-Tensioned Pile



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



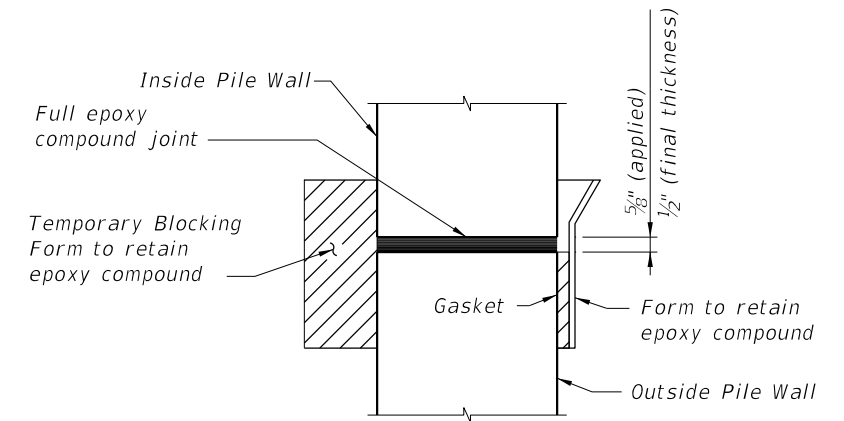
**SECTION A-A**



**SECTION B-B**

**ALTERNATE STRAND PATTERNS**

- 72 ~ 1/2" Ø, HSSS Strands, at 21 kips (24~3 strand tendons)
- 58 ~ 1/2" 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"**

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LAST REVISION 01/01/16	DESCRIPTION:
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FY 2019-20  
STANDARD PLANS

54" PRECAST/POST-TENSIONED CFRP & SS  
CONCRETE CYLINDER PILE

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SHEET  
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