

ELEVATION

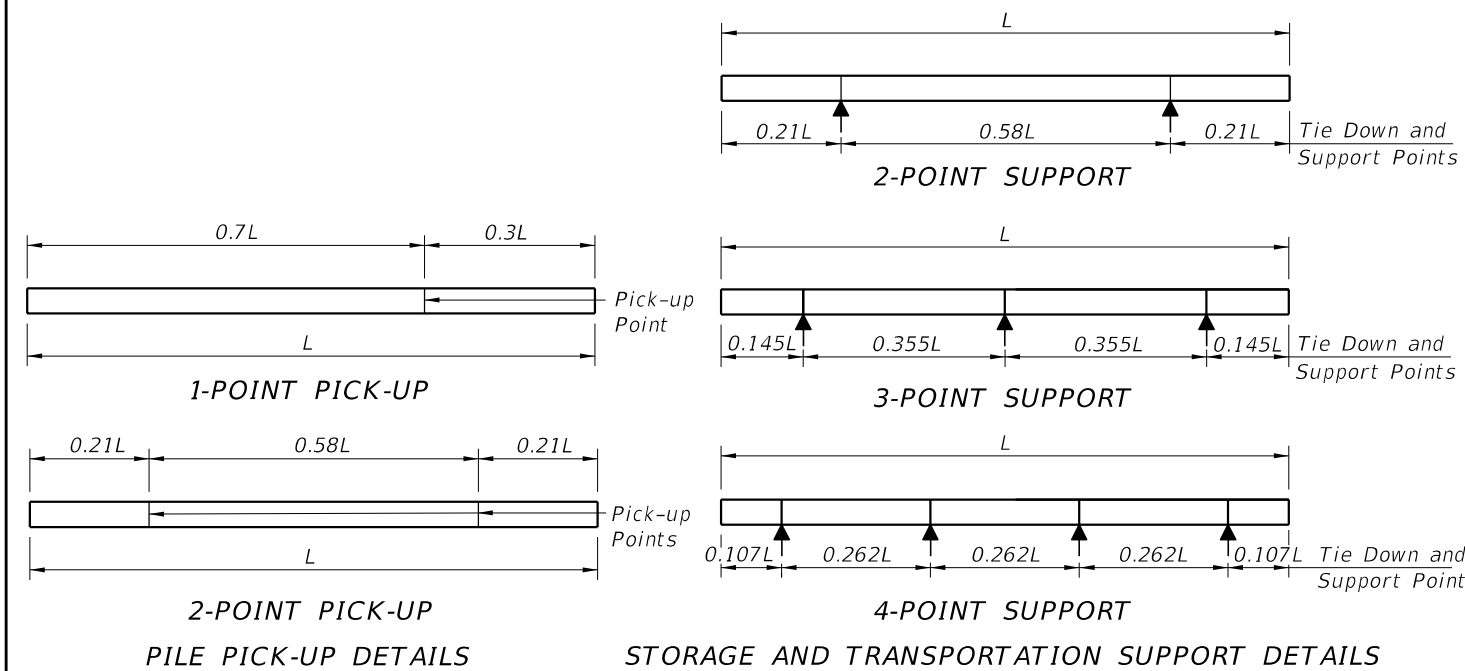


TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS

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

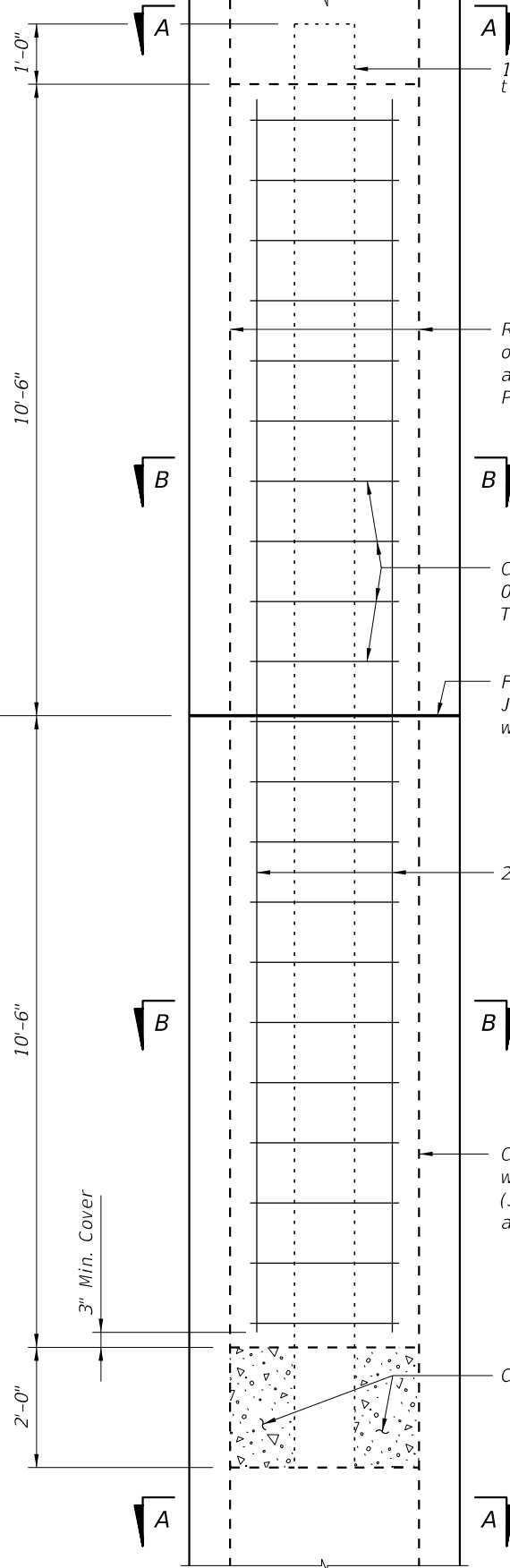
- Work this Index with the Pile Data Table in the Structures Plans.
- Concrete:
 - Piles: Class V (Special)
 - Splice: Class IV
 - Silica Fume: See "GENERAL NOTES" in Structures Plans for locations where the use of silica fume, metakaolin or ultra-fine flyash is required for options using stainless steel 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



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

Roughen inside surface of 54" \emptyset Pile to $\frac{1}{4}$ " amplitude for Spliced Pile Section

Closed No. 4 CFRP Bars or 0.3" \emptyset CFRP Strand Spiral Ties @ 1'-0" \pm (Typ.)

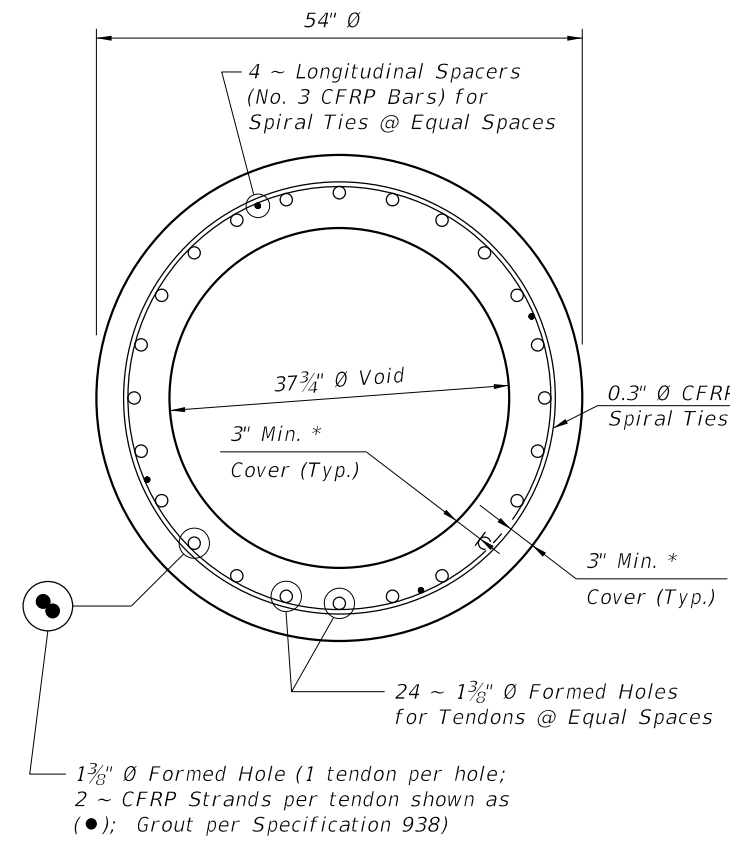
Full Epoxy Compound Joint around cylinder pile wall only (See Detail "A")

24 ~ No. 6 CFRP Bars

Clean inside surface of 54" \emptyset 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)

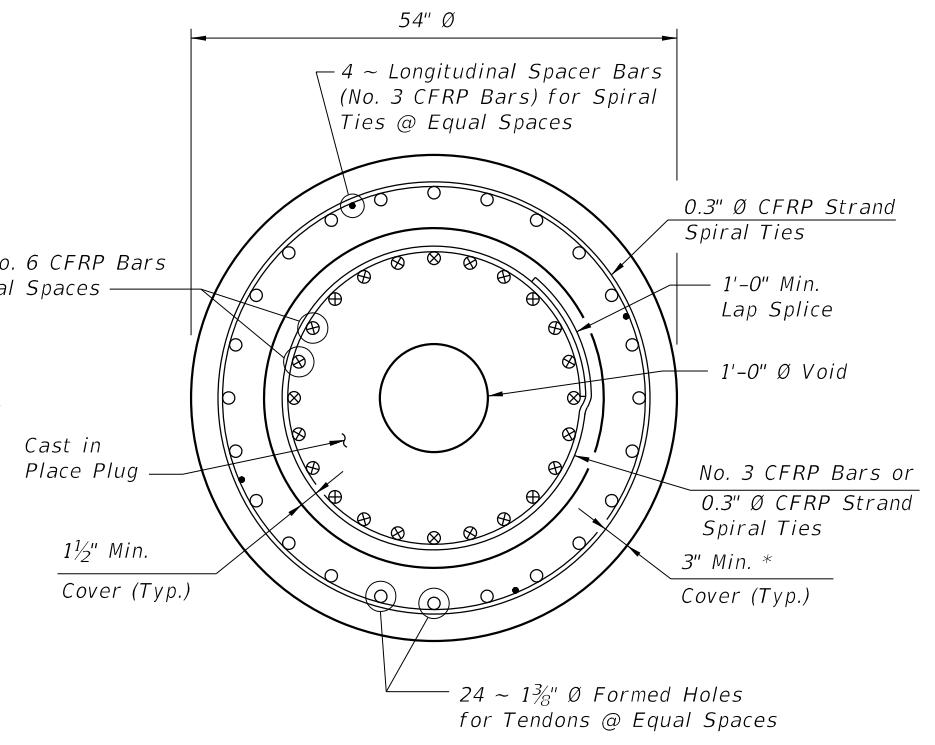


SECTION A-A

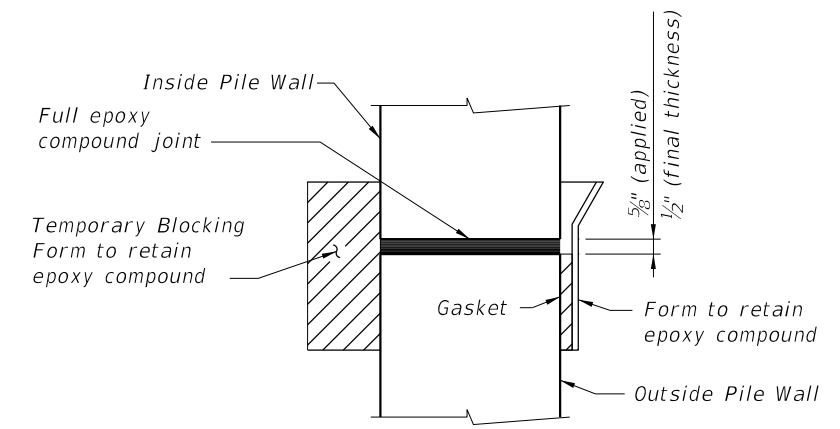
ALTERNATE STRAND PATTERNS

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

* 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 in² per year or less; otherwise, a 3-inch concrete cover is required.



SECTION B-B



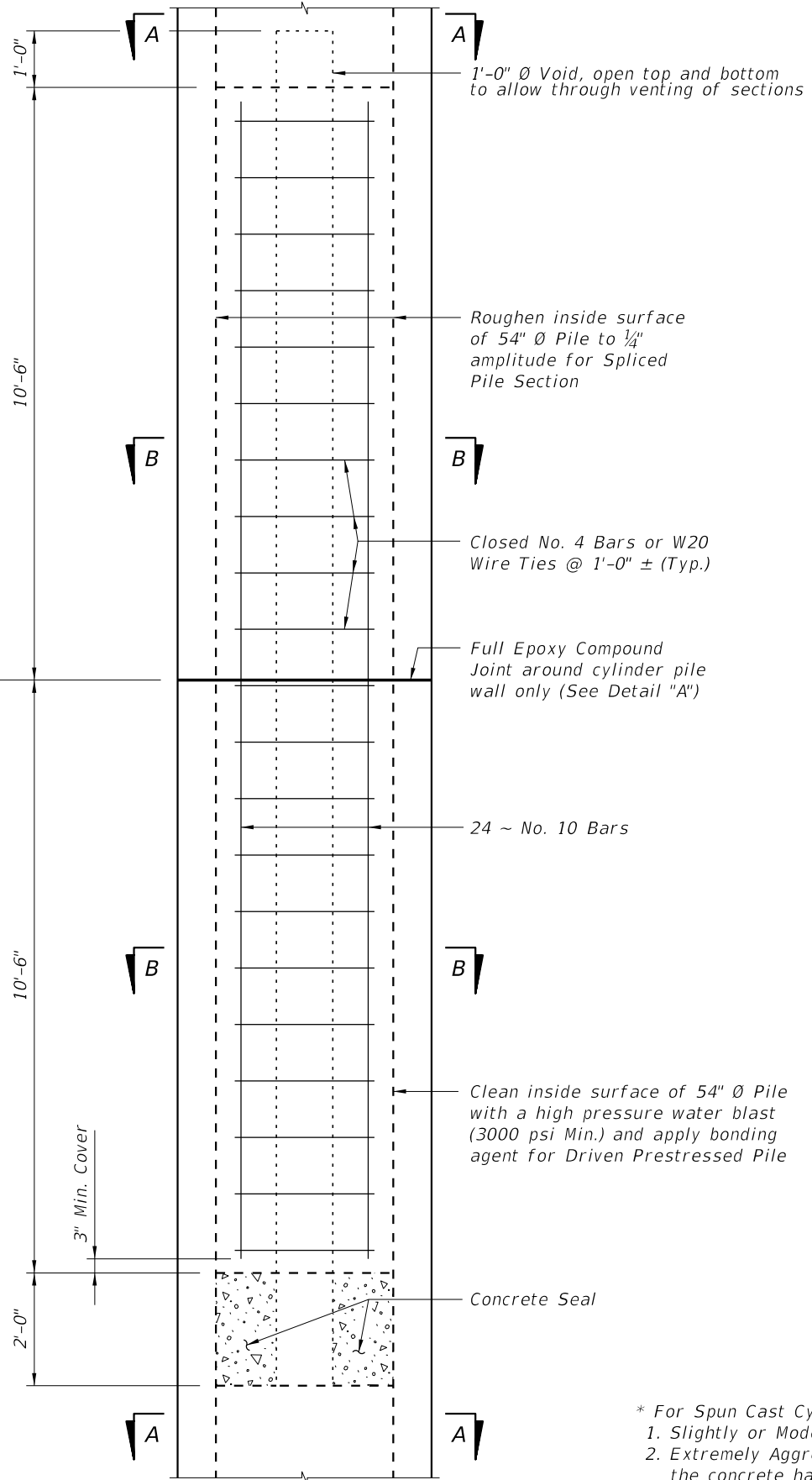
DETAIL "A"

CFRP POST-TENSIONED PILE DETAILS

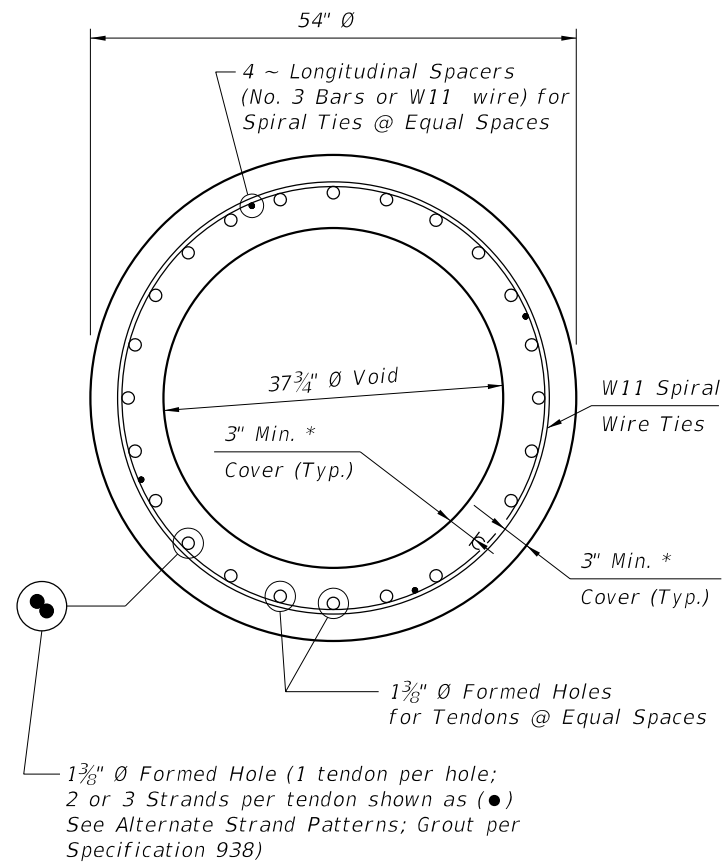
LAST REVISION 01/01/16	DESCRIPTION:		FY 2020-21 STANDARD PLANS	54" PRECAST/POST-TENSIONED CFRP & SS CONCRETE CYLINDER PILE	INDEX	SHEET
					455-154	2 of 3

Spliced Precast/Post-Tensioned Pile Section

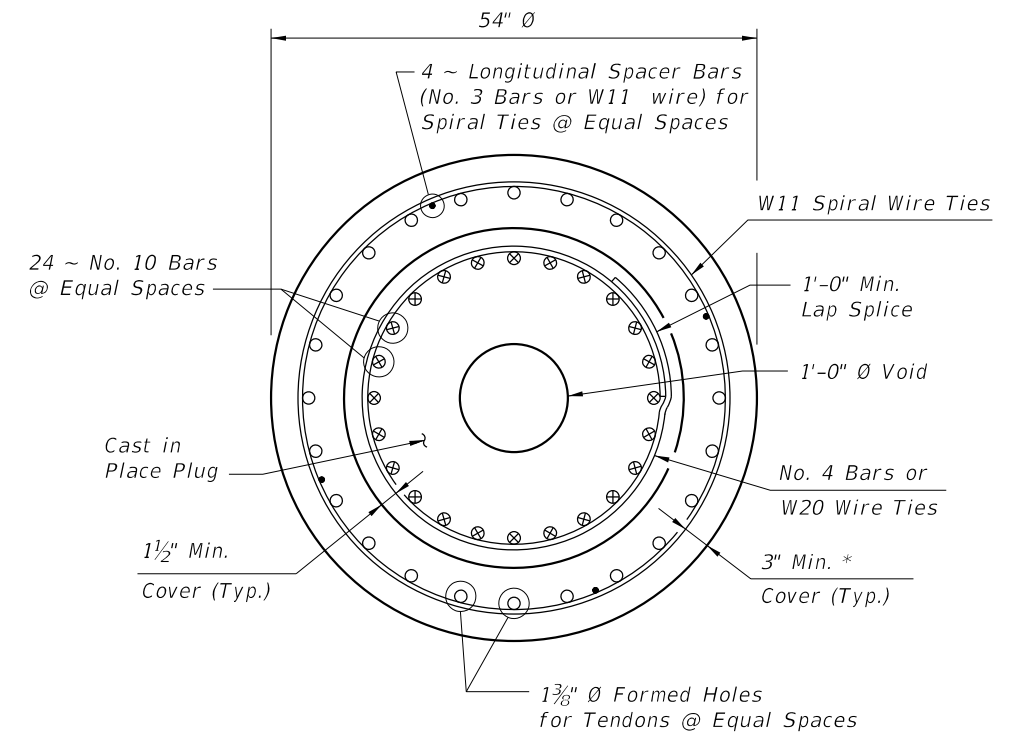
Driven Precast/Post-Tensioned Pile



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



SECTION A-A

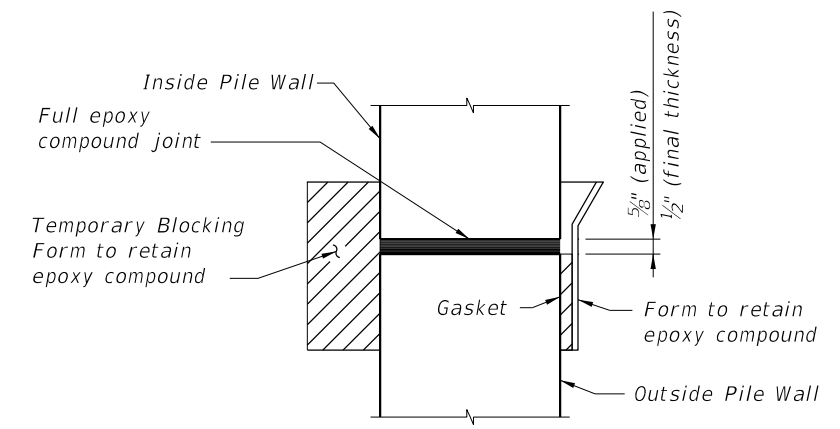


SECTION B-B

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)

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 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 in² per year or less; otherwise, a 3-inch concrete cover is required.



DETAIL "A"

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LAST REVISION	01/01/16	DESCRIPTION:
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