

Origination Form

Proposed Revisions to a Standard Plans Index

Originator:	Turley, Joshua	Index Number:	455-130
Date:	8/21/2024	Sheet Number(s):	2
E-mail:	Joshua.Turley@dot.state.fl.us	Index Title:	30" SQUARE CFRP & SS PRESTRESSED CONCRETE PILE

Summary of the changes:

Sheet 2: Adjusted Strand Pattern diameter decimal places

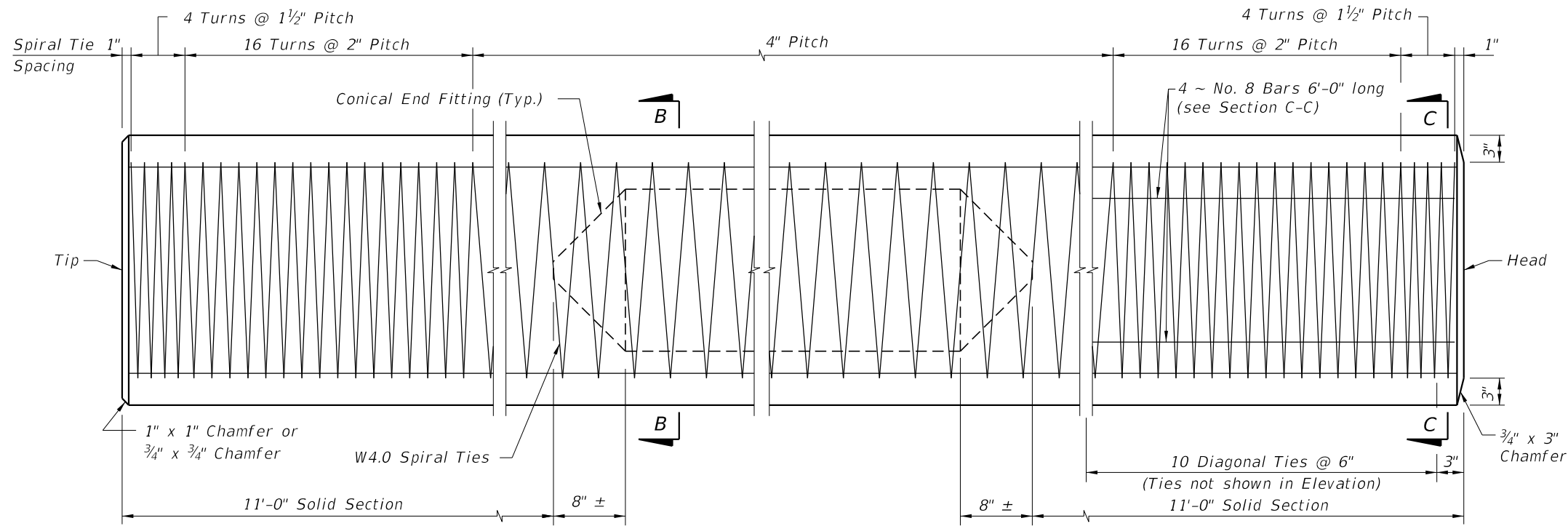
Commentary/Background:

This is a more accurate representation of the nominal diameter driven by the fact that the strands are fabricated in millimeters not inches.

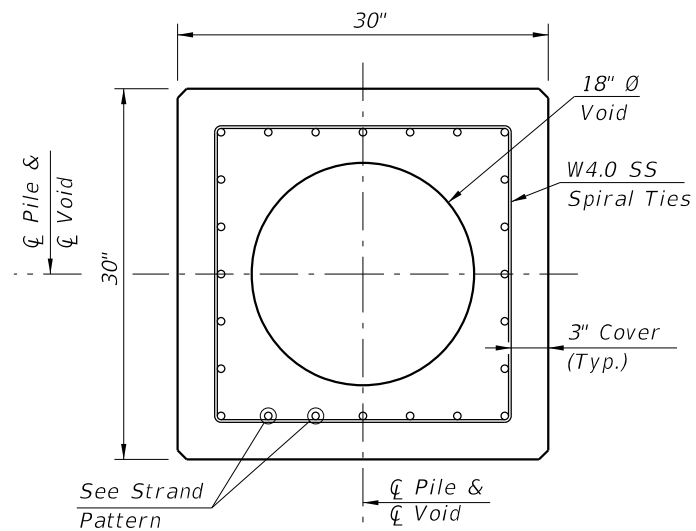
Other Affected Documents/Offices	Person Contacted	Affected (Yes/No)
Other Standard Plans		No
FDOT Design Manual		No
Standard Specifications		No
Basis of Estimates Manual		No
Approved Product List		No
Construction Office		No
Maintenance Office		No

Implementation

["FY-Standard Plans (Next Release)"]



ELEVATION



SECTION B-B

(See Pile Splice Reinforcement Details)

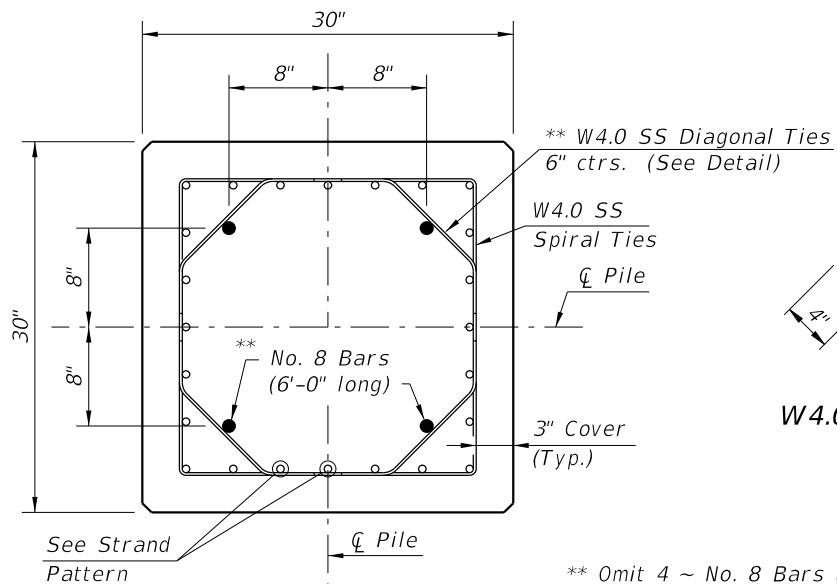
CHANGED TO: 0.520"

STRAND PATTERN

- 32 1/2" Ø, HSSS at 26 kips
- 24 0.6" Ø, HSSS at 35 kips

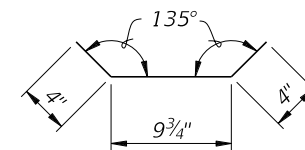
CHANGED TO: 0.620"

11/01/24



SECTION C-C

(See Pile Splice Reinforcement Details)

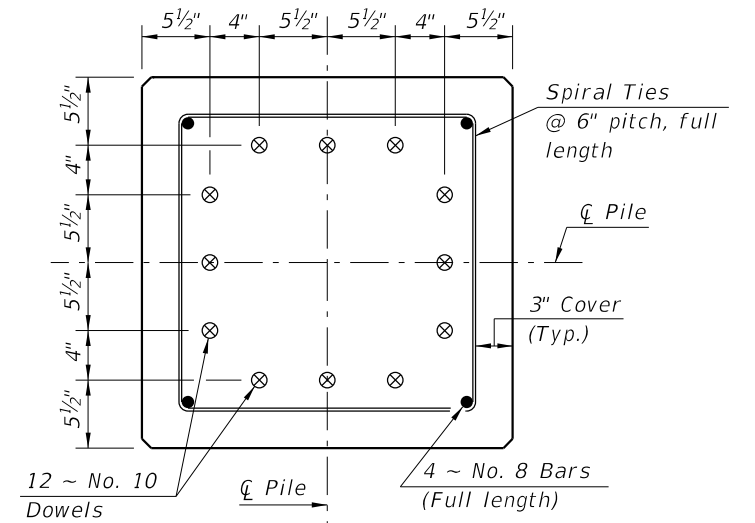


W4.0 DIAGONAL TIE DETAIL

** Omit 4 ~ No. 8 Bars and Diagonal Ties in pre-planned mechanical splice.

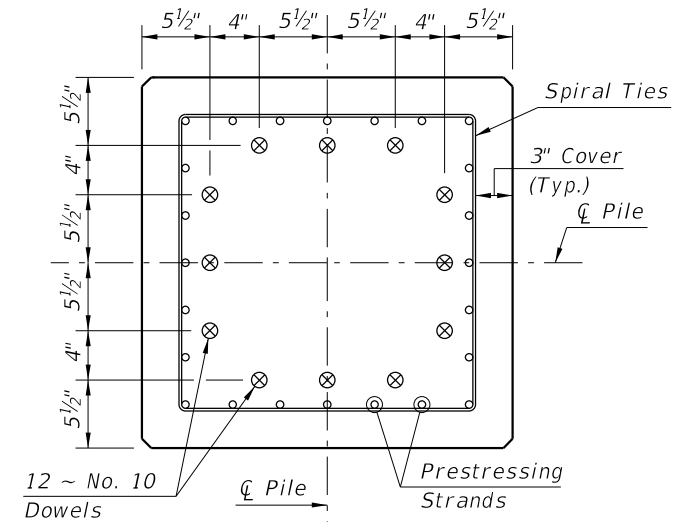
NOTES:

- Any of the given Strand Patterns may be utilized. The strands shall be located as follows: Place one strand at each corner and place the remaining strands equally spaced between the corner strands. The total strand pattern shall be concentric with the nominal concrete section of the pile.
- CONTRACTOR OPTION: The 30" pile may be cast SOLID by omitting the 18" Ø void. In this event, the Contractor shall submit calculations for approval and a proposed strand configuration that provide net prestressing after losses equal to 1000 psi. Alternate configurations for the Diagonal Ties, to maintain the position of the 4 ~ #8 Bars, may be approved by the Engineer.
- Work this Index with Index 455-101 - Typical Details and Notes for Square CFRP & SS Prestressed Concrete Piles and Index 455-102 - Square CFRP & SS Prestressed Concrete Pile Splices.



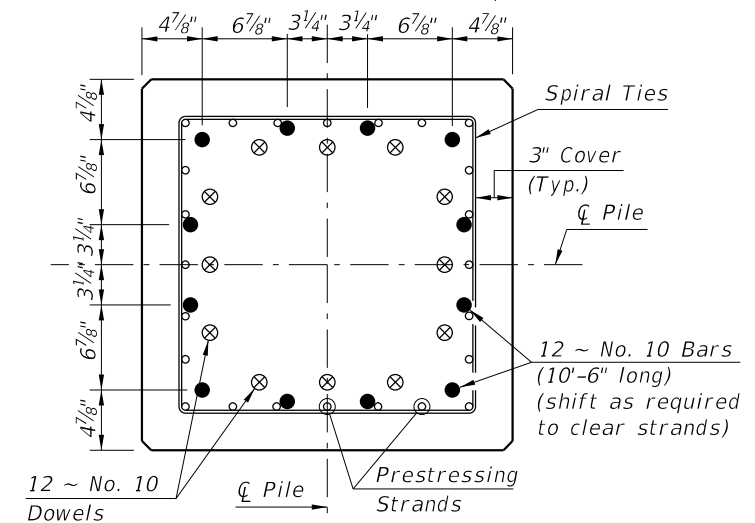
SECTION D-D

(See Non-Drivable Unforeseen Reinforced Precast Pile Build-Up Detail)



SECTION E-E

(See Drivable Prestressed Precast Pile Splice Detail)



SECTION F-F

(See Drivable Preplanned Prestressed Precast Pile Splice Detail)

SS PILE SPLICE DETAILS

SS PRESTRESSED PILE DETAILS

LAST REVISION	DESCRIPTION:
11/01/20	

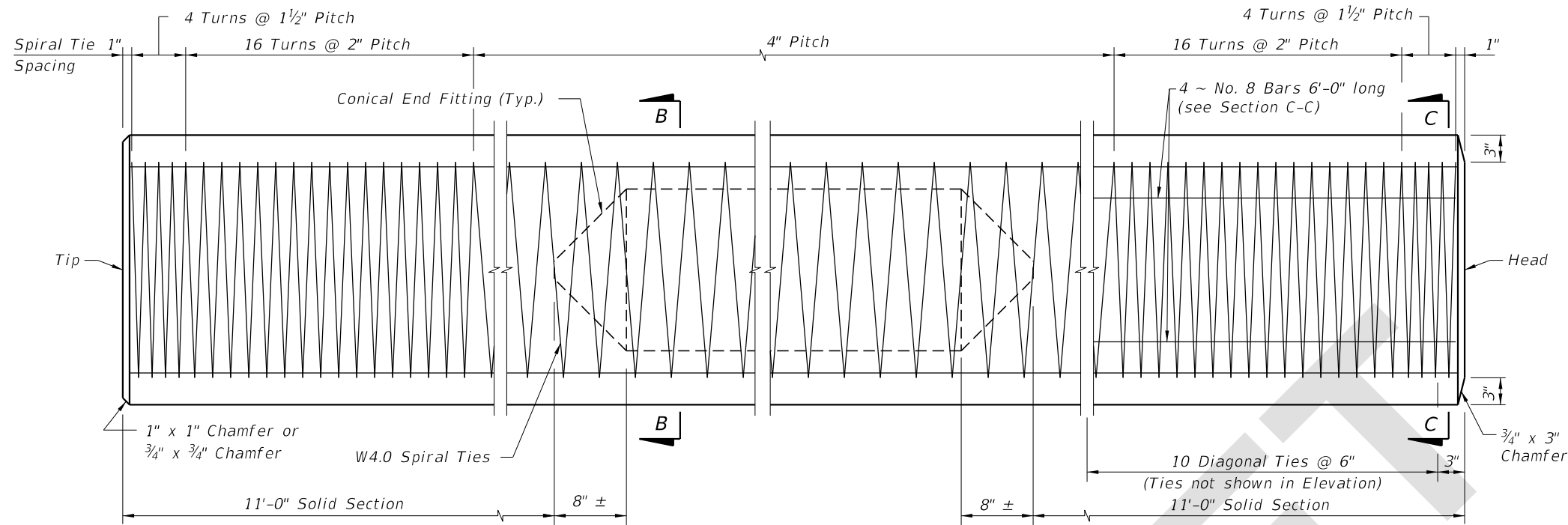


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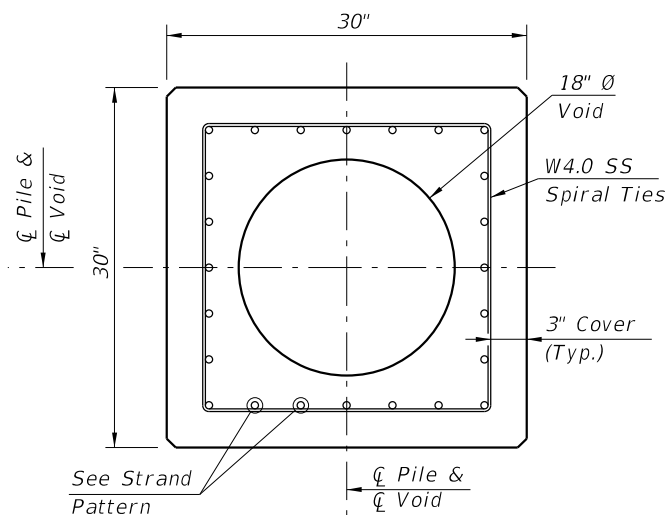
30" SQUARE CFRP & SS PRESTRESSED
CONCRETE PILE

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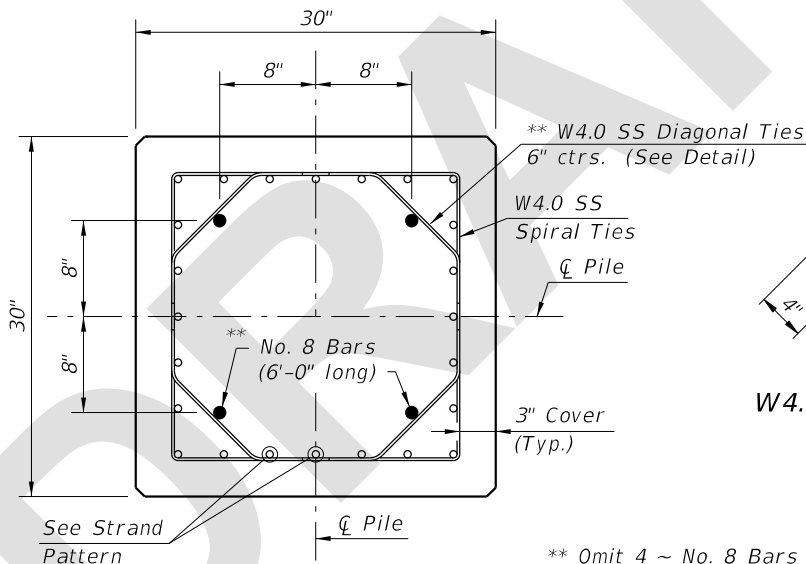
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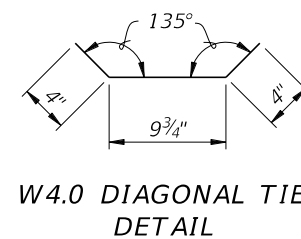
ELEVATION



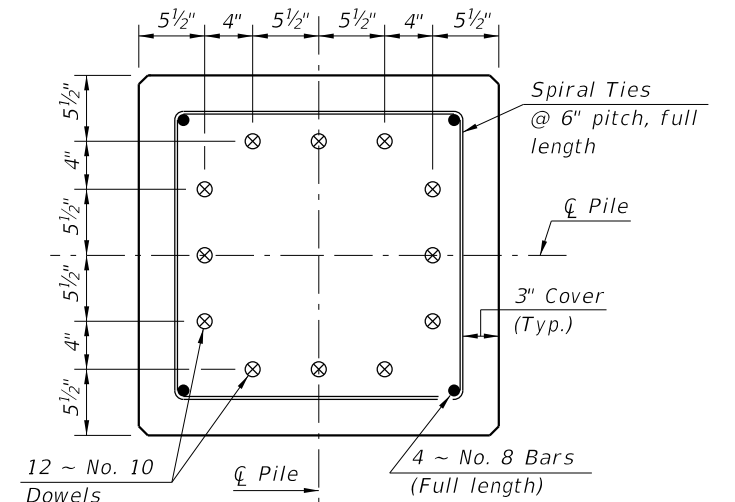
SECTION B-B
(See Pile Splice Reinforcement Details)



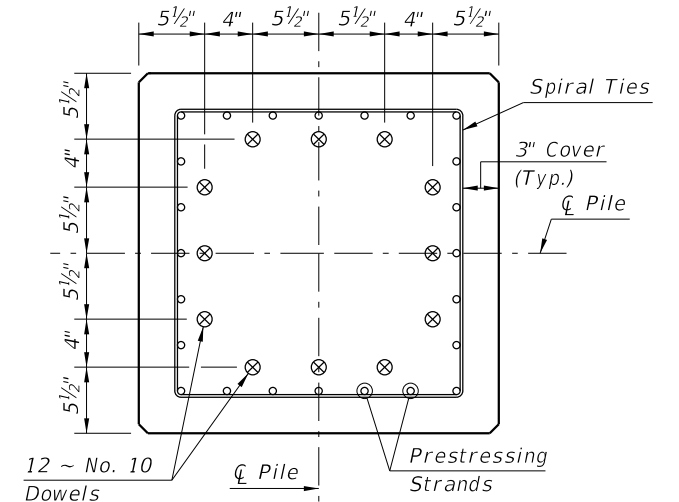
SECTION C-C
(See Pile Splice Reinforcement Details)



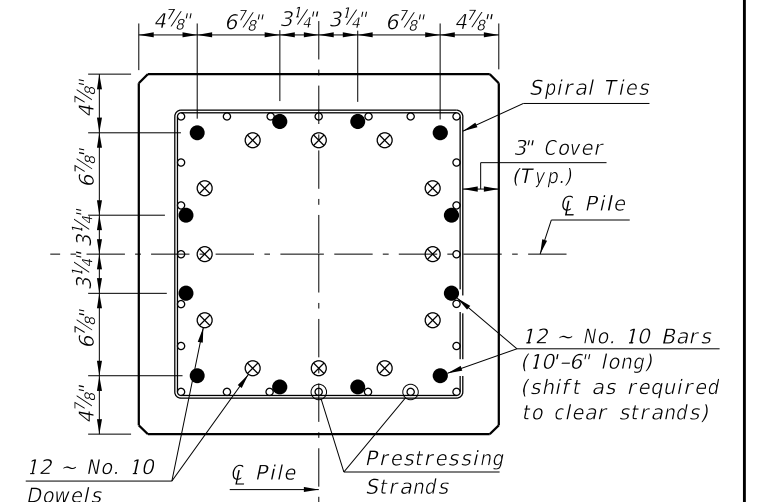
** Omit 4 ~ No. 8 Bars and Diagonal Ties in pre-planned mechanical splice.



SECTION D-D
(See Non-Drivable Unforeseen Reinforced Precast Pile Build-Up Detail)



SECTION E-E
(See Drivable Prestressed Precast Pile Splice Detail)



SECTION F-F
(See Drivable Preplanned Prestressed Precast Pile Splice Detail)

SS PILE SPLICE DETAILS

SS PRESTRESSED PILE DETAILS

STRAND PATTERN

- 32 ~ 0.52" Ø, HSSS at 26 kips
- 24 ~ 0.62" Ø, HSSS at 35 kips

NOTES:

- Any of the given Strand Patterns may be utilized. The strands shall be located as follows: Place one strand at each corner and place the remaining strands equally spaced between the corner strands. The total strand pattern shall be concentric with the nominal concrete section of the pile.
- CONTRACTOR OPTION: The 30" pile may be cast SOLID by omitting the 18" Ø void. In this event, the Contractor shall submit calculations for approval and a proposed strand configuration that provide net prestressing after losses equal to 1000 psi. Alternate configurations for the Diagonal Ties, to maintain the position of the 4 ~ #8 Bars, may be approved by the Engineer.
- Work this Index with Index 455-101 - Typical Details and Notes for Square CFRP & SS Prestressed Concrete Piles and Index 455-102 - Square CFRP & SS Prestressed Concrete Pile Splices.



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30" SQUARE CFRP & SS PRESTRESSED
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