


# ORIGINATION FORM

Proposed Revisions to a Standard Plans Index  
(Please provide all information – Incomplete forms will be returned)

## Contact Information:

Date: August 26, 2019  
Originator: Cheryl Hudson  
Phone: (850) 414-5332  
Email: cheryl.hudson@dot.state.fl.us

## Standard Plans:

Index Number: 455-440  
Sheet Number (s): 2  
Index Title: Precast Concrete Sheet Pile Wall (CFRP/GFRP & HSSS/GFRP) 

## Summary of the changes:

CVchanged Dimension B for 10" wall and Added new Note 5 & renumbered.

## Commentary / Background:

Diameter for bend was too tight, requires adjustments to placement.

## Other Affected Offices / Documents: (Provide name of responsible personnel)

- | Yes                      | No                                  |  |
|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Other Standard Plans –                 |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | FDOT Design Manual –                   |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Basis of Estimates Manual –            |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Standard Specifications – Andre Pavlov |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Approved Product List –                |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Construction –                         |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Maintenance –                          |

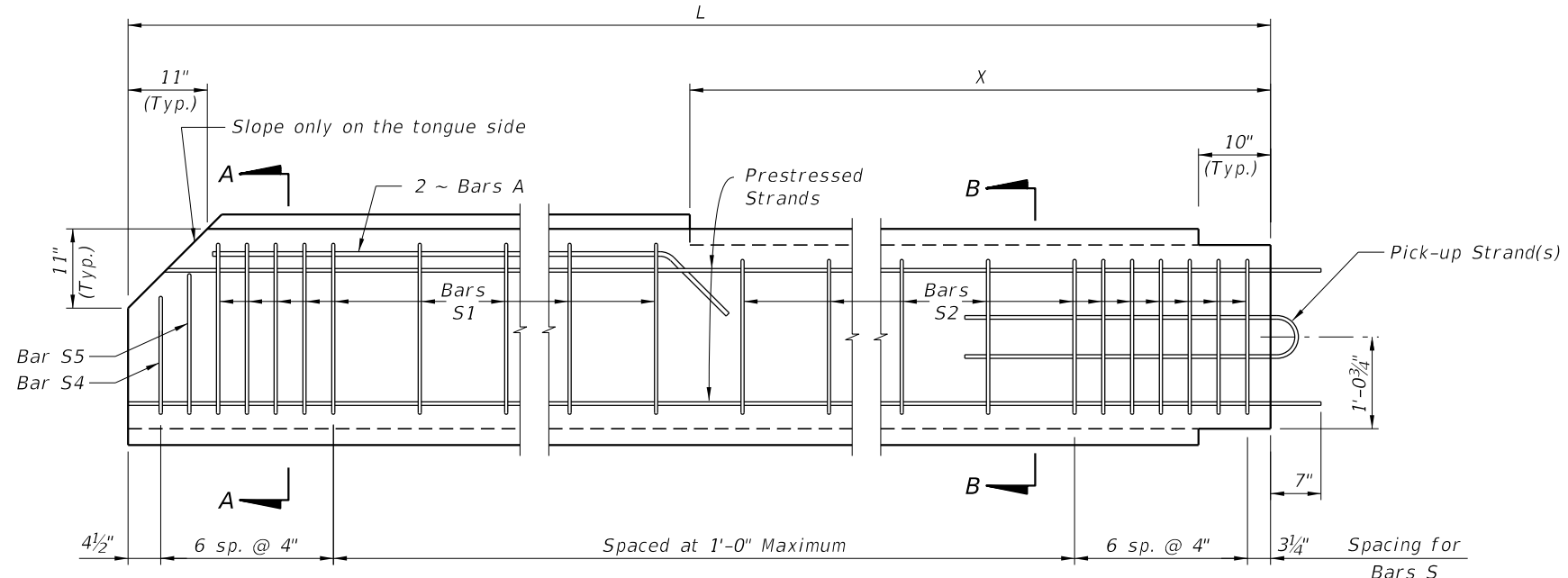
## Origination Package Includes: (Email or hand deliver package to Derwood Sheppard)

- | Yes                      | N/A                                 |   |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Redline Mark-ups                          |
| <input type="checkbox"/> | <input type="checkbox"/>            | Proposed Standard Plan Instructions (SPI) |
| <input type="checkbox"/> | <input type="checkbox"/>            | Revised SPI                               |
| <input type="checkbox"/> | <input type="checkbox"/>            | Other Support Documents                   |

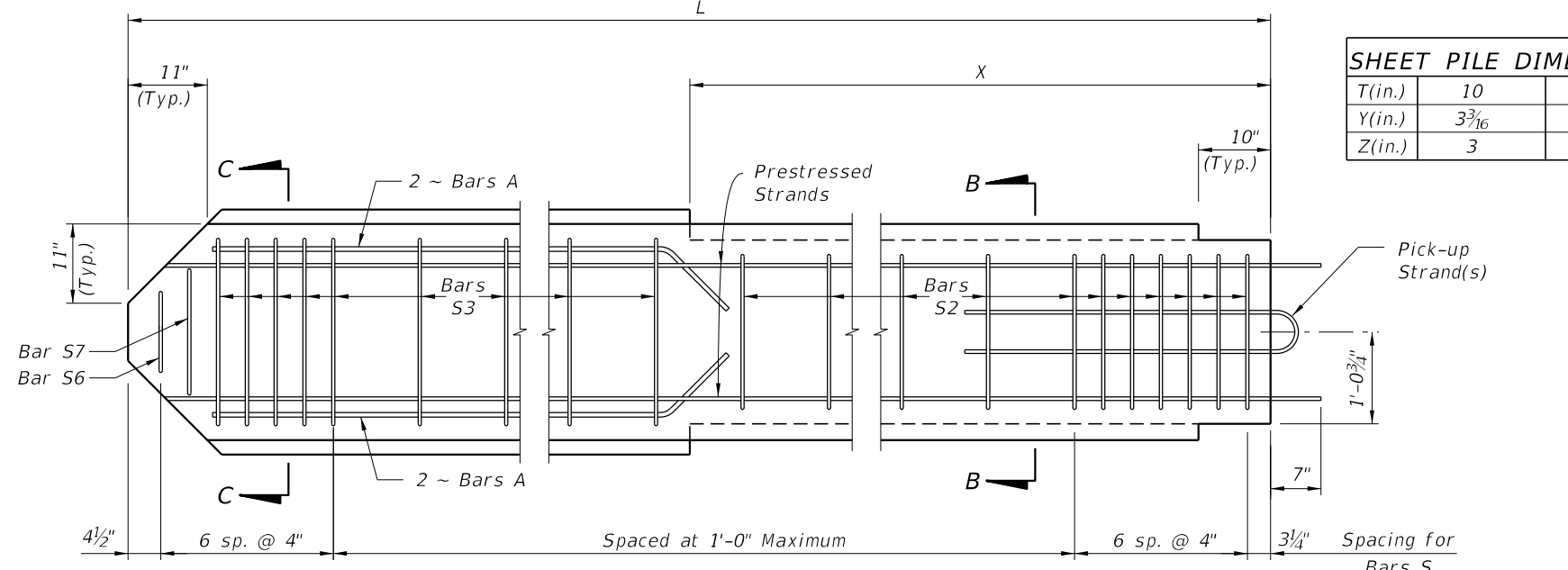
## Implementation:

- Design Bulletin (Interim)    DCE Memo    Program Mgmt. Bulletin    FY-Standard Plans (Next Release)

————— Contact the Roadway Design Office for assistance in completing this form —————



TYPICAL PILE

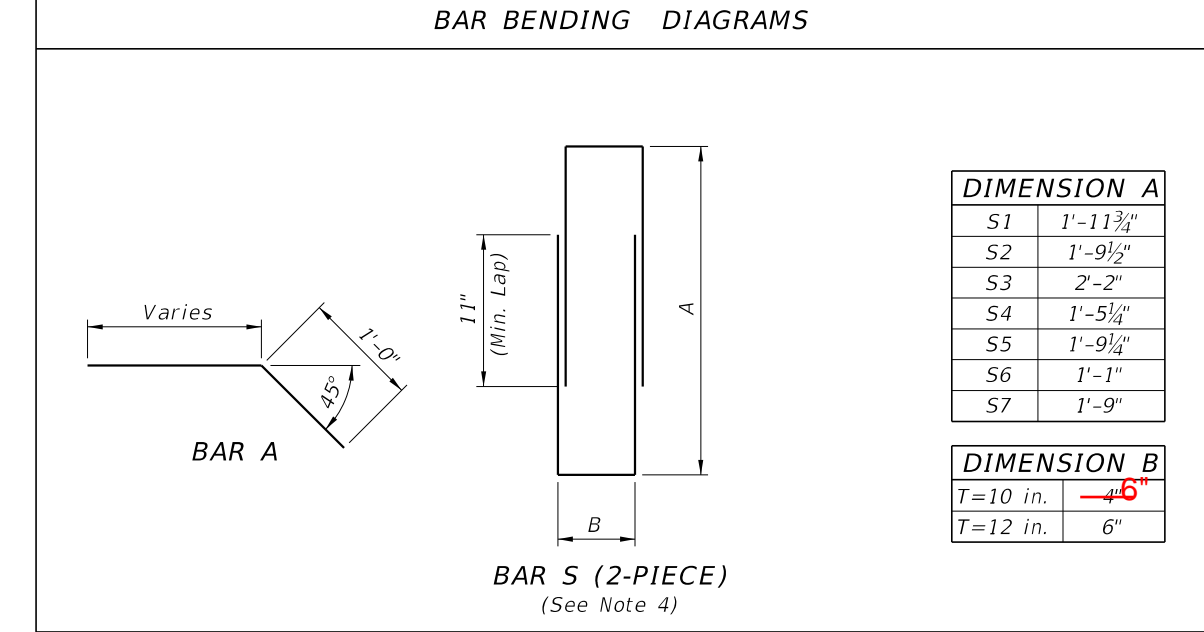


STARTER PILE

SHEET PILE DIMENSIONS		
T(in.)	10	12
Y(in.)	3 3/16	4 3/16
Z(in.)	3	4

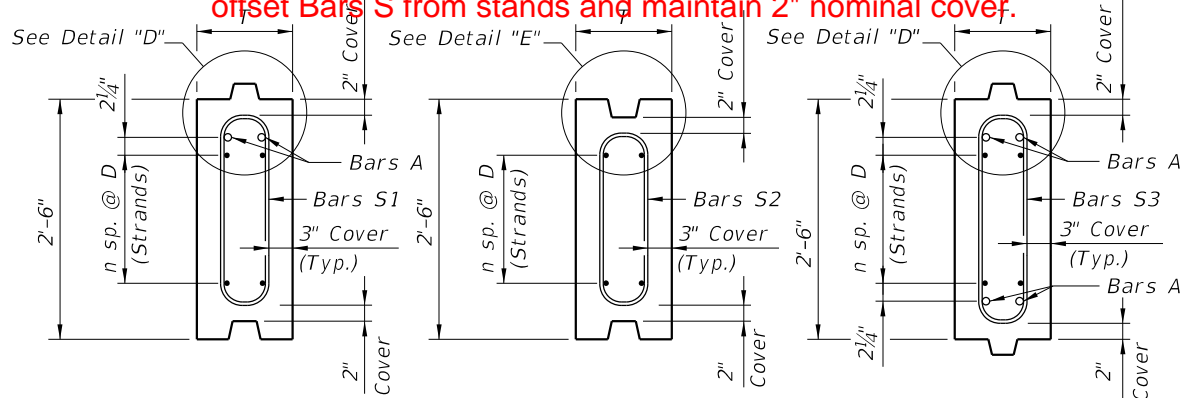
- NOTES:
- Intermediate Prestress Strands not shown in Elevations and Sections.
  - All bar dimensions are out-to-out.
  - Bars A are GFRP #5
  - Bars S are GFRP #4 and may be a single closed bar (hoop) with equivalent area and tensile strength.
  - For Dimensions L and X see Sheet Pile Data Table in Structures Plans.

5. For 10" thick Sheet Piles, Bars S may be tilted to achieve contact with strands or provide supplemental GFRP Bars to offset Bars S from stands and maintain 2" nominal cover.



DIMENSION A	
S1	1'-11 3/4"
S2	1'-9 1/2"
S3	2'-2"
S4	1'-5 1/4"
S5	1'-9 1/4"
S6	1'-1"
S7	1'-9"

DIMENSION B	
T=10 in.	4 6"
T=12 in.	6"



SECTION A-A

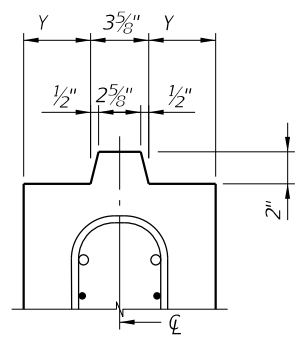
SECTION B-B

SECTION C-C

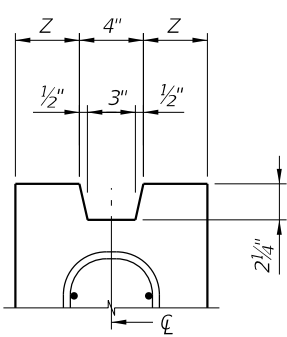
Strand Material	Wall Thickness	STRAND DIA. (in.)	MAXIMUM L *	n	D (in.)	TOTAL # OF STRANDS	Initial (Jacking) FORCE (Kip)
CFRP Strand	T=10 in.	0.49 (12.5mm)	26'-0"	4	4	10	28.7
		0.5 (12.7mm)	27'-0"	3	5 1/4 (2)	8	41.3
		0.6 (15.2mm)	27'-0"	3	5 1/4 (2)	8	42.7
	T=12 in.	0.49 (12.5mm)	31'-0"	5	3 1/4 (1)	12	28.7
		0.5 (12.7mm)	31'-0"	3	5 1/4 (2)	8	41.3
		0.6 (15.2mm)	31'-0"	3	5 1/4 (2)	8	42.7
HSSS Strand	T=10 in.	0.5 (12.7mm)	27'-0"	5	3 1/4 (1)	12	25.7
		0.6 (15.2mm)	26'-0"	3	5 1/4 (2)	8	36.5
	T=12 in.	0.5 (12.7mm)	32'-0"	6	2 3/4 (3)	14	25.7
		0.6 (15.2mm)	32'-0"	4	4	10	36.5

- Alternate symmetrical strand patterns:
- 4 sp. @ 2" & 1 sp. @ 8"
  - 2 sp. @ 4" & 1 sp. @ 8"
  - 4 sp. @ 2" & 2 sp. @ 4"

\* Based on lifting using single point pick-up.



DETAIL "D" (Typical Tongue)

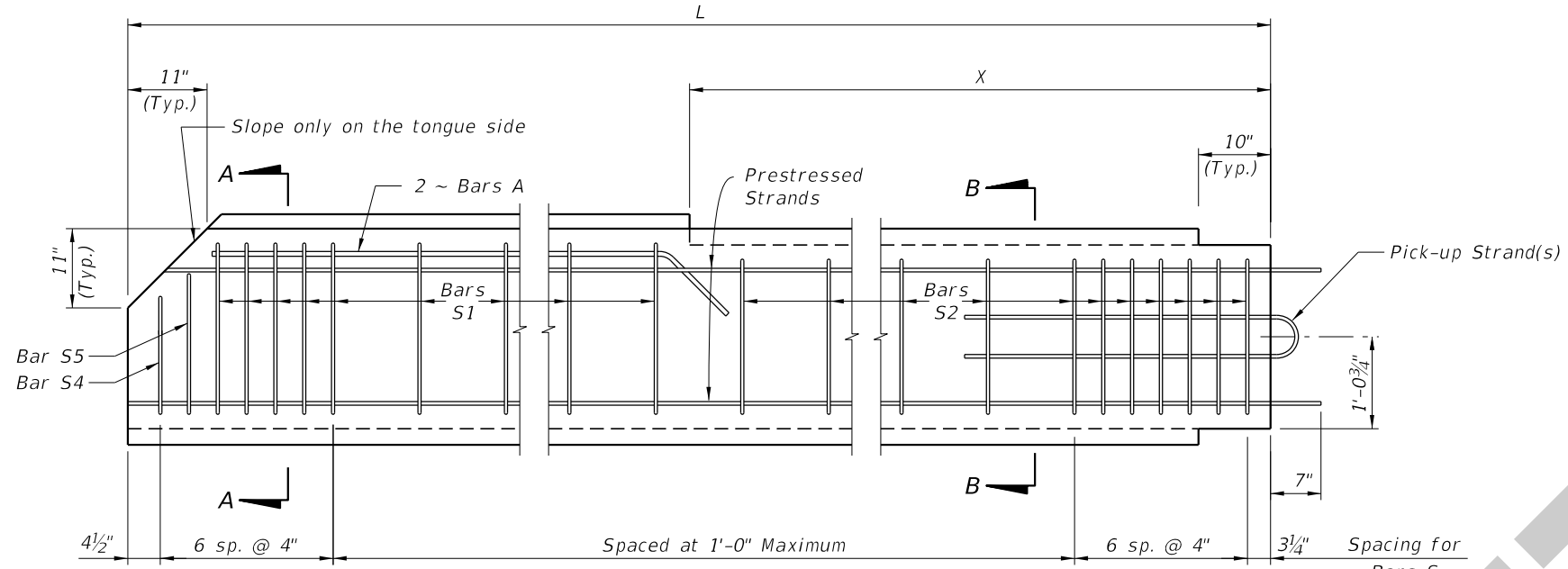


DETAIL "E" (Typical Groove)

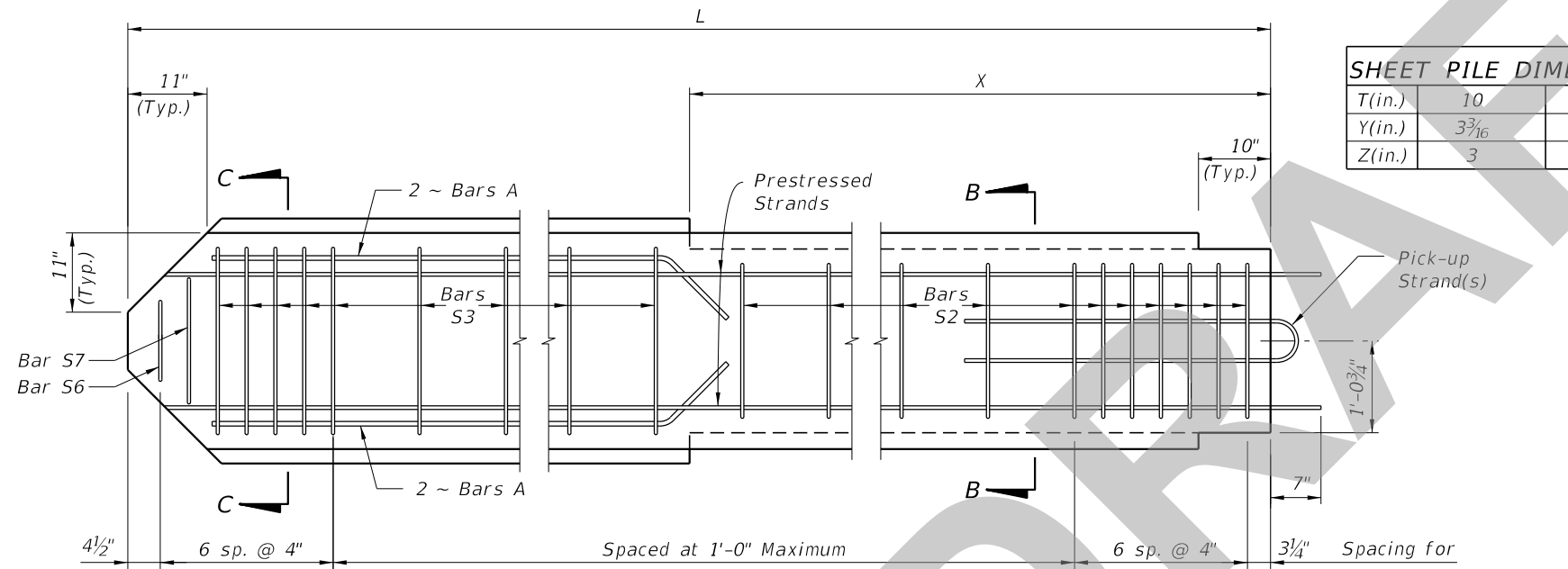
TYPE "A" STANDARD SECTION

10/18/2018 11:03:22 AM

LAST REVISION	DESCRIPTION:
11/01/18	

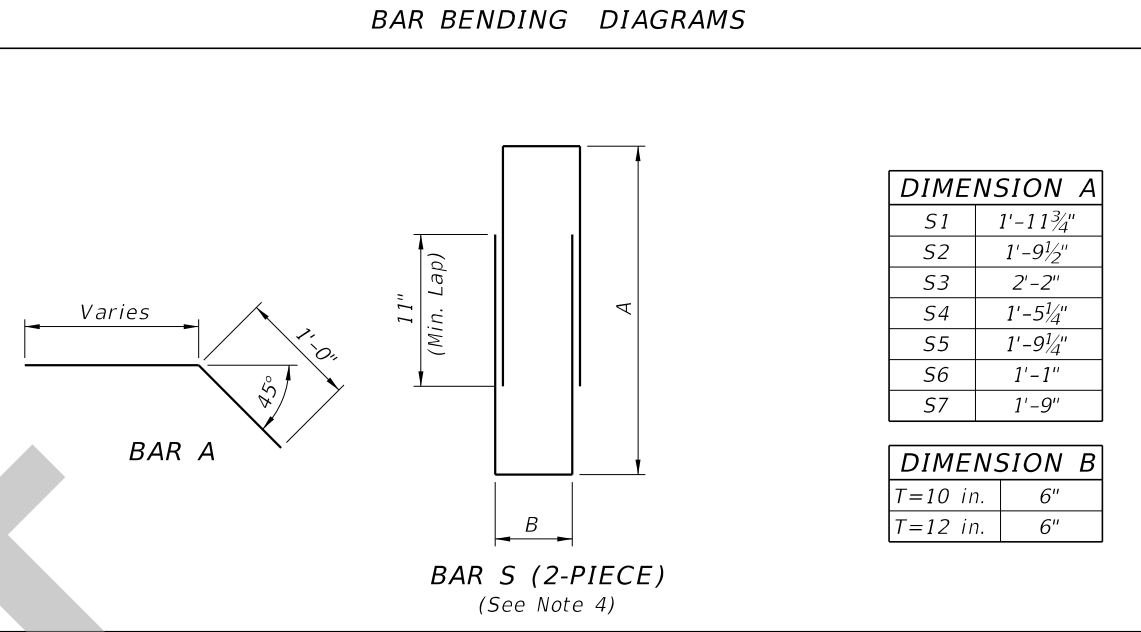


TYPICAL PILE

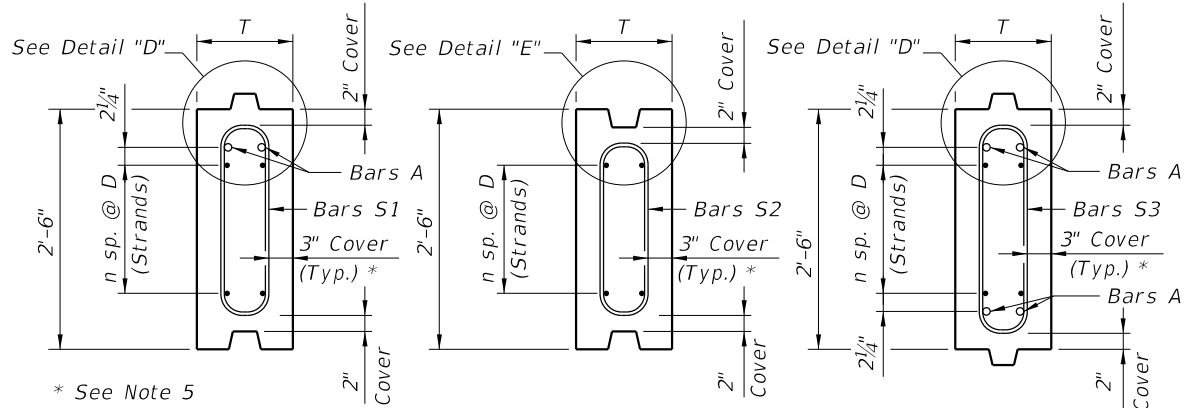


STARTER PILE

SHEET PILE DIMENSIONS		
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Y(in.)	3 3/16	4 3/16
Z(in.)	3	4



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  2. All bar dimensions are out-to-out.
  3. Bars A are GFRP #5
  4. Bars S are GFRP #4 and may be a single closed bar (hoop) with equivalent area and tensile strength.
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  6. For Dimensions L and X see Sheet Pile Data Table in Structures Plans.

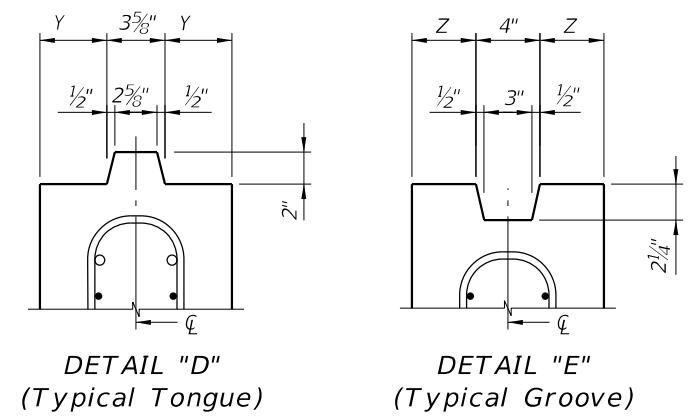


SECTION A-A SECTION B-B SECTION C-C

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\* Based on lifting using single point pick-up.



DETAIL "D" (Typical Tongue) DETAIL "E" (Typical Groove)

TYPE "A" STANDARD SECTION

8/26/2019 2:08:20 PM