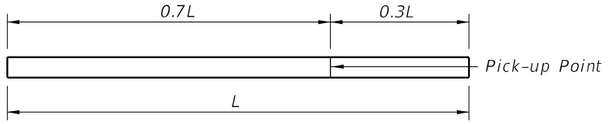
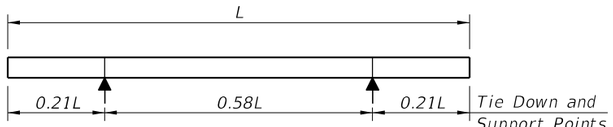
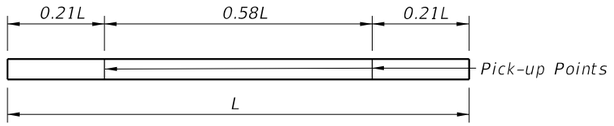


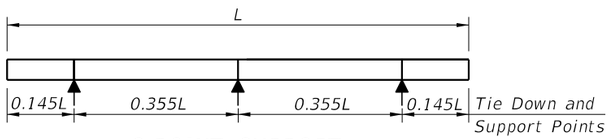

1-POINT PICK-UP



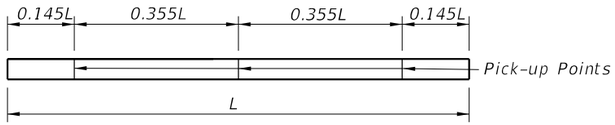

2-POINT SUPPORT




2-POINT PICK-UP

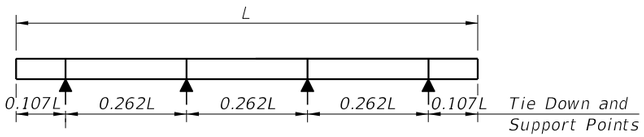



3-POINT SUPPORT




3-POINT PICK-UP

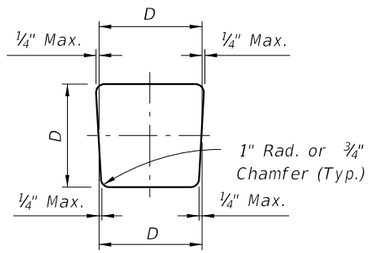
PILE PICK-UP DETAILS



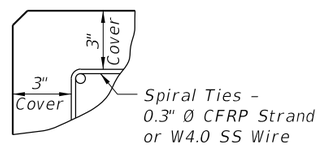

4-POINT SUPPORT

STORAGE AND TRANSPORTATION SUPPORT DETAILS

| TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS | | | | | | | |
|---|---|---|---|---|---|---|---|
| | D = Square Pile Size (inches) | | | | | Required Storage and Transportation Detail | Pick-Up Detail |
| | 12 | 14 | 18 | 24 | 30 | | |
| Maximum Pile Length (Feet) | 48 | 52 | 59 | 68 | 87 | 2, 3, or 4 point | 1 Point |
| | 69 | 75 | 85 | 98 | 124 | 2, 3, or 4 point | 2 Point |
| | 99 | 107 | 121 | 140 | 178 | 3 or 4 point | 3 Point |




TYPICAL PILE SHAPE FOR MOLD FORMS




DETAIL SHOWING TYPICAL COVER

## PRESTRESSED CONCRETE PILE NOTES:

DESIGN SPECIFICATIONS:
Florida Department of Transportation (FDOT) "Structures Design Guidelines", current edition. American Association of State Highway and Transportation Officials (AASHTO) "LRFD Bridge Design Specifications", current edition.

SPIRAL TIES:
Each wrap of spirals shall be tied to at least two corner strands. One turn required for spiral splices.

CONCRETE CLASS:
Concrete for all CFRP & SS piles shall be Class V (Special). See "GENERAL NOTES" in Structures Plans for any specific locations where the use of Silica Fume is required for stainless steel reinforcing.

CONCRETE STRENGTH:
The pile cylinder strength shall be 4,000 psi minimum at time of transfer of the Prestressing Force.

SPLICE BONDING MATERIAL:
The material to fill dowel holes and form the joint between pile sections shall be a Type B Epoxy Compound in accordance with Specification Section 926 and shall be contained on the Approved Products List (APL). Use Epoxy Bonding Compound or Epoxy Mortar as recommended by the Manufacturer. For Epoxy Mortar only use sand or other filler material supplied by the manufacturer and in the proportions recommended.

PICK-UP POINTS:
Piles shall be marked at the pick-up points to indicate proper points for attaching handling lines.

REINFORCING BARS:
Stainless Steel: All reinforcing steel shall meet the requirements of Specification Section 931 for Type 304, Grade 75.
Carbon FRP: All reinforcing bars shall be CFRP meeting the requirements of Specification Section 932.

PRESTRESSING STRAND:
Stainless Steel: Prestressing steel shall be seven-wire HSSS, UNS S32205 (Type 2205) or UNS S31803 strand, meeting the requirements of Specification Section 933.
Carbon FRP: Prestressing strand shall be CFRP Strand meeting the requirements of Specification Section 933.

PROTECTION OF EXPOSED STRANDS:
For all pile ends exposed to the environment and not embedded under final conditions, protect strands in accordance with Specification Section 450.

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| LAST REVISION | REVISION | DESCRIPTION: | FDOT | FY 2016-17 DESIGN STANDARDS | NOTES AND DETAILS FOR SQUARE CFRP & SS PRESTRESSED CONCRETE PILES | INDEX NO. | SHEET NO. |
|---|---|---|---|---|---|---|---|
| 01/01/16 | | | | | | 22600 | 1 of 1 |