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## ORIGINATION FORM

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

**Contact Information:**

Date: January 14, 2020

Originator: Cheryl Hudson

Phone: 414-5332

Email: cheryl.hudson@dot.state.fl.us

**Standard Plans:**

Index Number: 455-001

Sheet Number (s): 1

Index Title: Square Prestressed Concrete Piles - Typical  
Details & Notes



**Summary of the changes:**

Change Silica Fume, metakaolin or ultra-fine flyash to Highly Reactive Pozzolans

**Commentary / Background:**

Specification changed to fit silica fume, metakaolin and ultra-fine flyash under Highly Reactive Pozzolans

**Other Affected Offices / Documents:** (Provide name of person contacted)

- | 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 –   |
| <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 Rick Jenkins)

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

**Implementation:**

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

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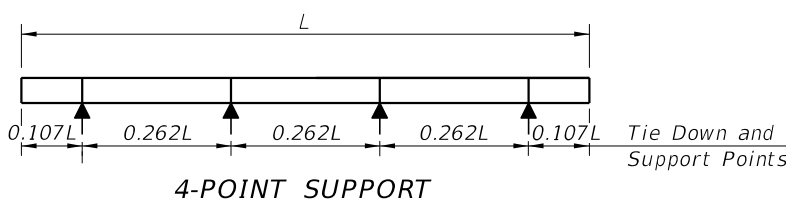
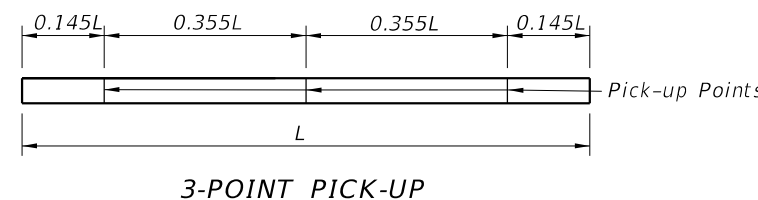
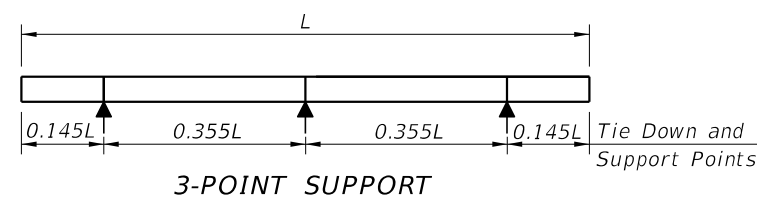
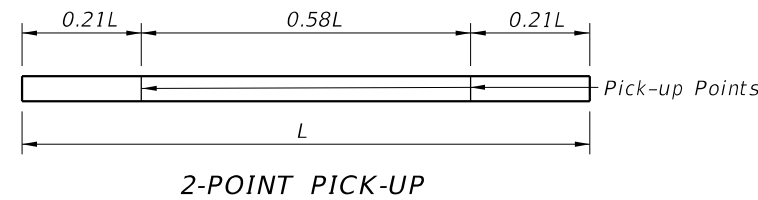
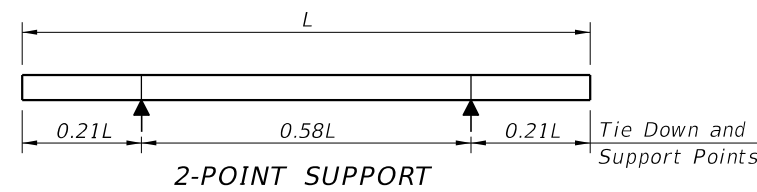
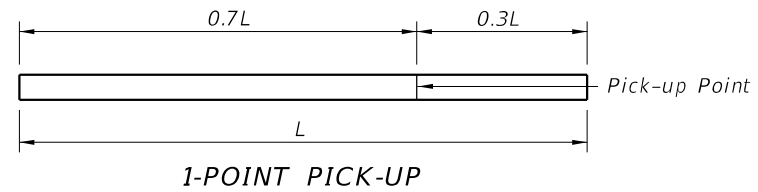
Contact the Roadway Design Office for assistance in completing this form

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**PRESTRESSED CONCRETE PILE NOTES:**

1. Work this Index with the Square Prestressed Concrete Pile Splices (Index 455-002), the Prestressed Concrete Pile Standards (Index 455-012 thru 455-030), the High Moment Capacity Square Prestressed Concrete Pile (Index 455-031) and the Pile Data Table in the Structures Plans.
2. Concrete:
  - A. Piles: Class V (Special), except use Class VI for High Moment Capacity Pile (Index 455-031).
  - B. High Capacity Splice Collar: Class V (Special).
  - C. ~~Silica Fume~~: See "GENERAL NOTES" in the Structures Plans for locations where the use of ~~silica fume, metakaolin or ultra fine flyash~~ is required.
3. Concrete strength at time of prestress transfer:
  - A. Piles: 4,000 psi minimum.
  - B. High Moment Capacity Piles: 6,500 psi minimum.
4. Carbon-Steel Reinforcing:
  - A. Bars: Meet the requirements of Specification Section 415.
  - B. ~~Prestressing Strands~~: Meet the requirements of Specification Section 933.
  - C. Protect all strands permanently exposed to the environment and not embedded under final conditions in accordance with Specification Section 450.
5. Spiral Ties:
  - A. Tie each wrap of the spiral strand to a minimum of two corner strands.
  - B. One full turn required for spiral splices.
6. Pile Splices: Fill dowel holes and form the joint between pile sections with a Type AB Epoxy Compound in accordance with Specification Section 962. Use an Epoxy Bonding Compound or an Epoxy Mortar as recommended by the Manufacturer.

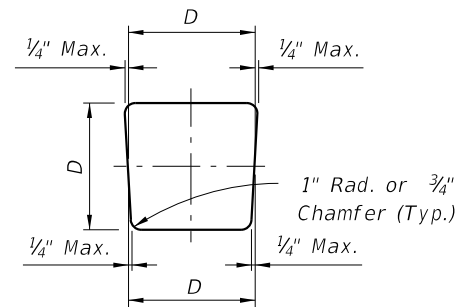
Highly Reactive Pozzolans



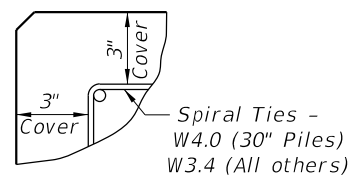
PILE PICK-UP DETAILS

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	20	24	30		
Maximum Pile Length (Feet)	48	52	59	62	68	87	2, 3, or 4 point	1 Point
	69	75	85	89	98	124	2, 3, or 4 point	2 Point
	99	107	121	128	140	178	3 or 4 point	3 Point



TYPICAL PILE SHAPE FOR MOLD FORMS



DETAIL SHOWING TYPICAL COVER

10/14/2019 3:57:56 PM

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LAST REVISION	11/01/16	REVISION	DESCRIPTION:
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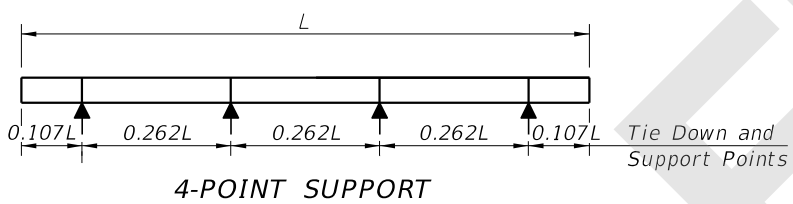
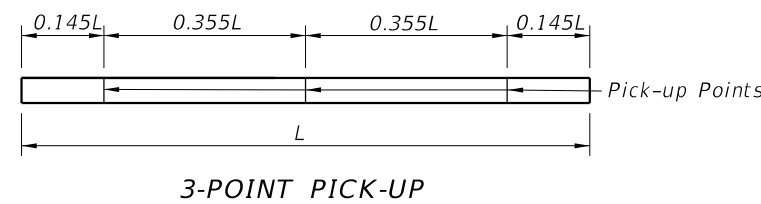
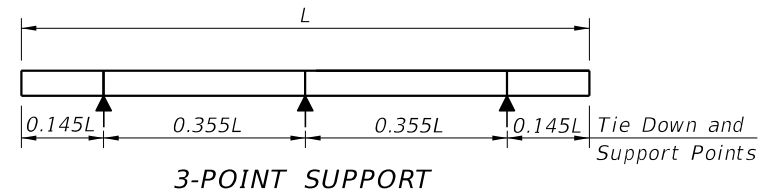
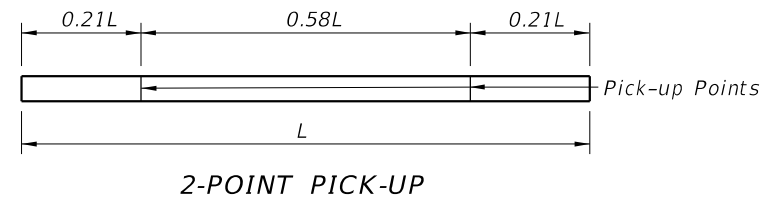
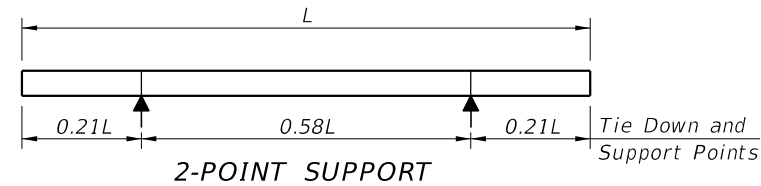
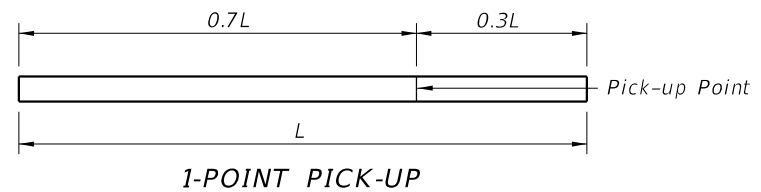
**FY 2020-21  
STANDARD PLANS**

**SQUARE PRESTRESSED CONCRETE PILES**  
 - TYPICAL DETAILS & NOTES

INDEX	SHEET
455-001	1 of 1

**PRESTRESSED CONCRETE PILE NOTES:**

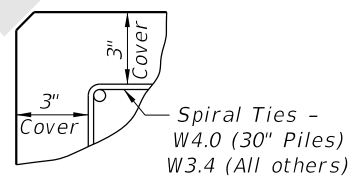
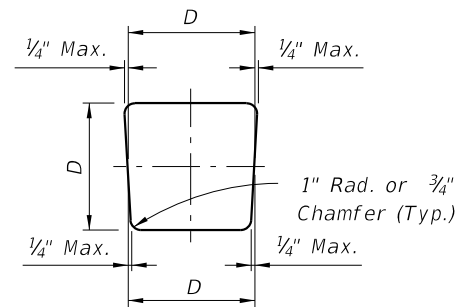
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SDATES STIMES

LAST REVISION 11/01/20	DESCRIPTION:
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FY 2021-22  
STANDARD PLANS

SQUARE PRESTRESSED CONCRETE PILES  
- TYPICAL DETAILS & NOTES

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1 of 1