
ORIGINATION FORM

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

Contact Information:

Date: February 12, 2020

Originator: Cheryl Hudson

Phone: 414-5332

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

Standard Plans:

Index Number: 455-054

Sheet Number (s): 1

Index Title: 54" Square Precast/Post-Tensioned Concrete
Cylinder Pile**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:

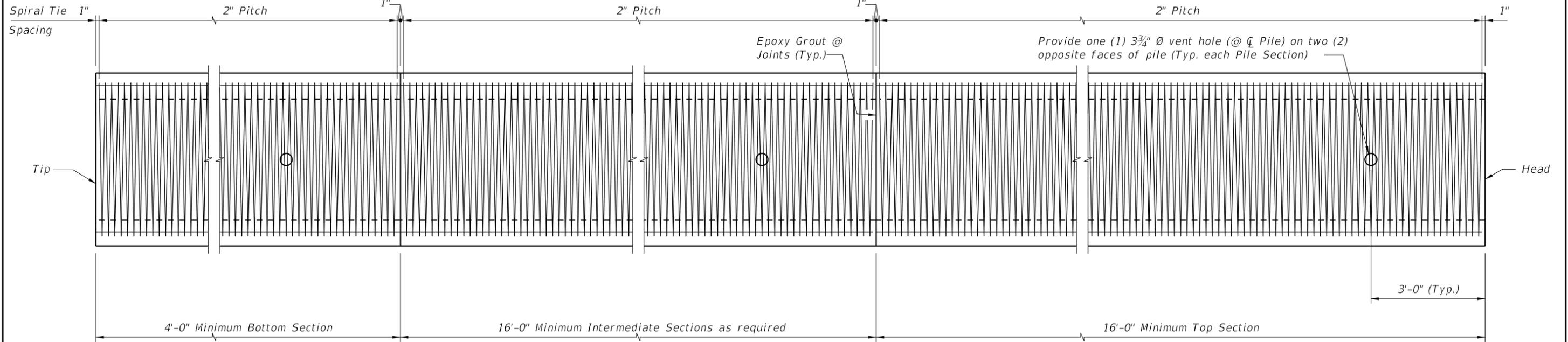
(Email or hand deliver package to Rick Jenkins)

- | 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 |

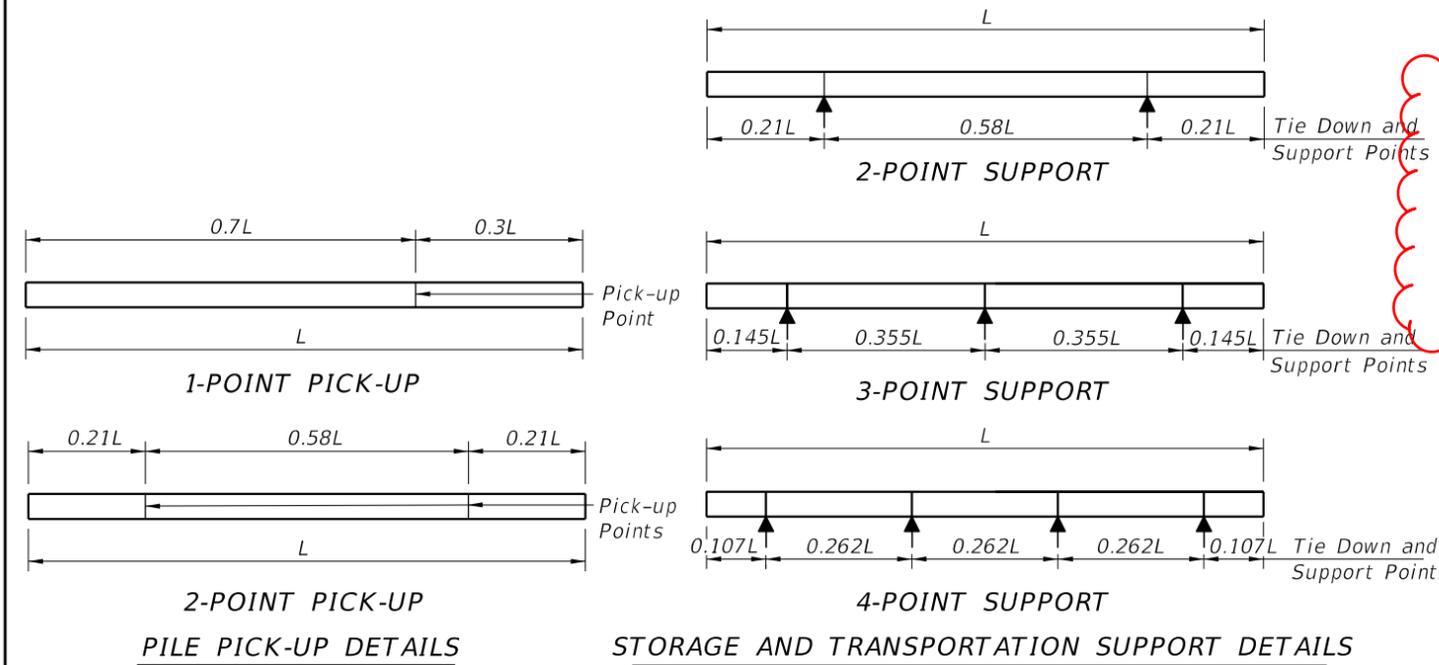
Implementation:

- | | |
|-------------------------------------|----------------------------------|
| <input type="checkbox"/> | Design Bulletin (Interim) |
| <input type="checkbox"/> | DCE Memo |
| <input type="checkbox"/> | Program Mgmt. Bulletin |
| <input checked="" type="checkbox"/> | FY-Standard Plans (Next Release) |

Contact the Roadway Design Office for assistance in completing this form



ELEVATION



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

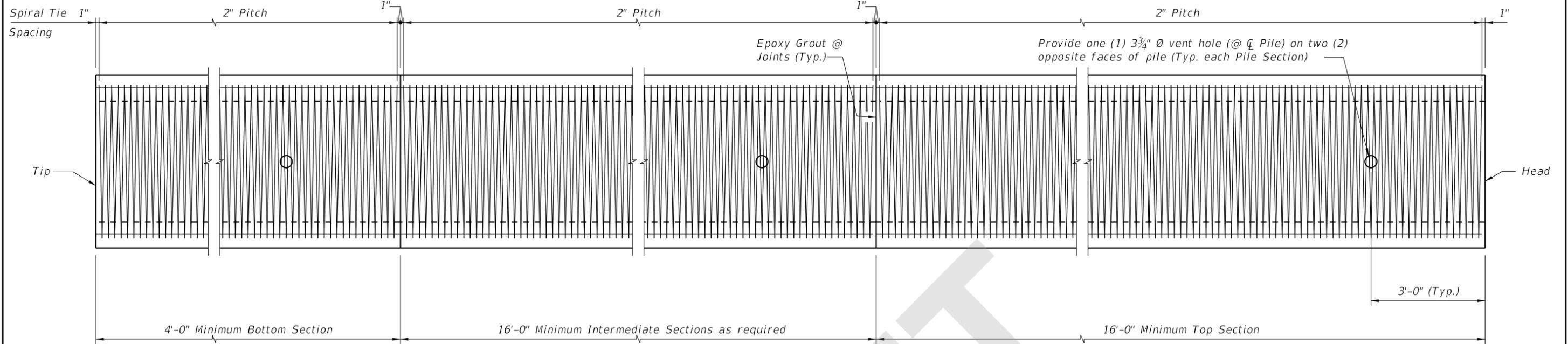
- Work this Index with the Pile Data Table in the Structures Plans.
- Concrete:
 - Piles: Class V (Special).
 - Splice: Class IV.
 - ~~Silica Fume~~: See "GENERAL NOTES" in Structures Plans for locations where the use of silica fume, metakaolin or ultra-fine flyash is required.
- Concrete Strength at time of prestress transfer:
 - Piles: 6,000 psi minimum.
- Carbon-Steel Reinforcing:
 - Bars: Meet the requirements of Specification Section 415.
 - Prestressing Strands: Meet the requirements of Specification Section 933.
 - Tendons: Two seven-wire 1/2" dia. (Special) Grade 270, low-relaxation strands tensioned to 33.8 kips.
 - Protect all carbon-steel strands permanently exposed to the environment and not embedded under final conditions in accordance with Specification Section 450.
 - 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.

Highly Reactive Pozzolans

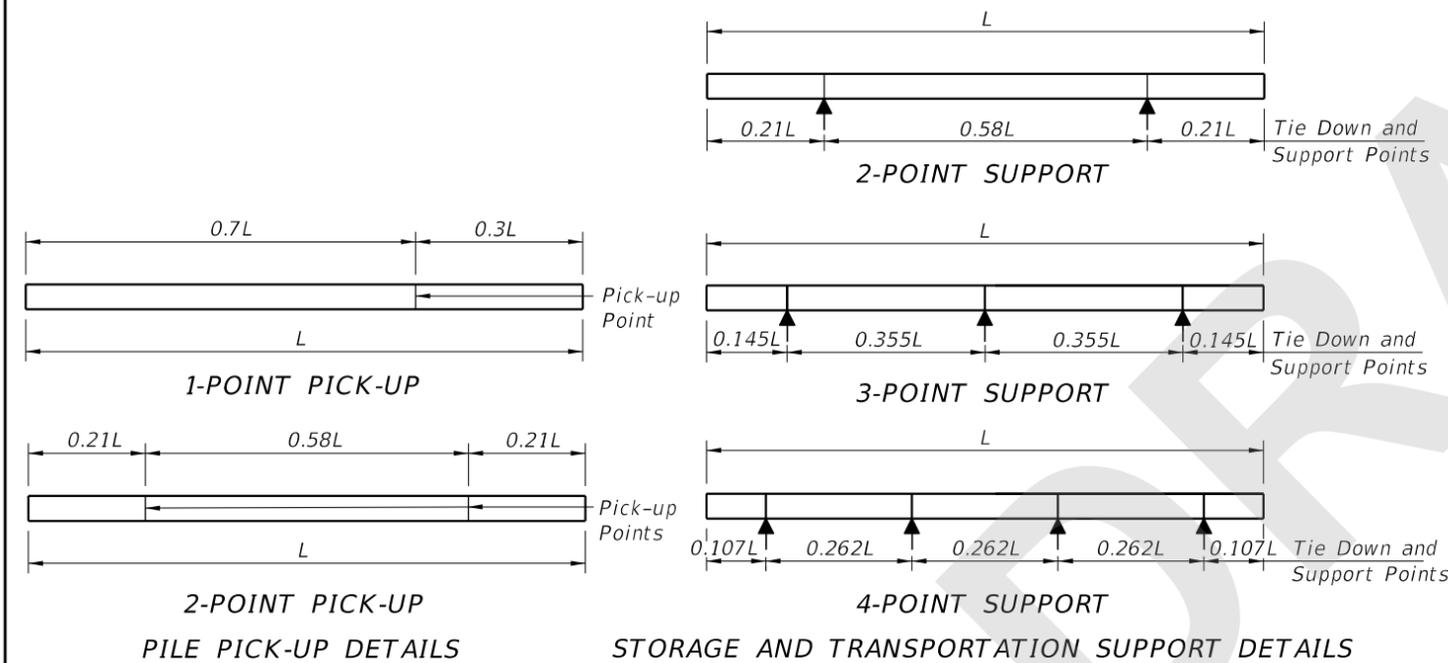
4:00:50 PM 7/14/2019

20

LAST REVISION	DESCRIPTION:
11/01/16	



ELEVATION



NOTES

- Work this Index with the Pile Data Table in the Structures Plans.
- Concrete:
 - Piles: Class V (Special).
 - Splice: Class IV.
 - See "GENERAL NOTES" in Structures Plans for locations where the use of Highly Reactive Pozzolans is required.
- Concrete Strength at time of prestress transfer:
 - Piles: 6,000 psi minimum.
- Carbon-Steel Reinforcing:
 - Bars: Meet the requirements of Specification Section 415.
 - Prestressing Strands: Meet the requirements of Specification Section 933.
 - Tendons: Two seven-wire 1/2" dia. (Special) Grade 270, low-relaxation strands tensioned to 33.8 kips.
 - Protect all carbon-steel strands permanently exposed to the environment and not embedded under final conditions in accordance with Specification Section 450.
 - 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.

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

7/27/2020 3:21:39 PM