## PRESTRESSED CONCRETE PILE NOTES:

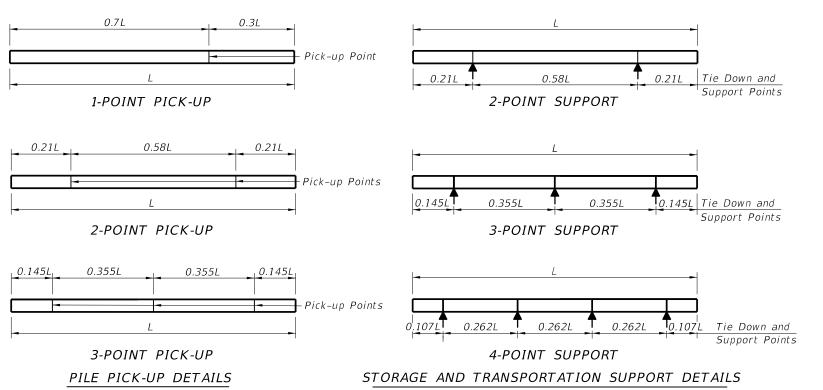


TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS								
	D = Square Pile Size (inches)					nes)	Required Storage and	Rick Up Dotail
	12	14	18	20	24	30	Transportation Detail	Pick-Up Detail
Maximum	48	52	59	62	68	87	2, 3, or 4 point	1 Point
Pile Length	69	75	85	89	98	124	2, 3, or 4 point	2 Point
(Feet)	99	107	121	128	140	178	3 or 4 point	3 Point

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:

(Index 20631) shall be Class VI.

Concrete for the High Capacity Collar Splice shall be Class V (Special).

Silica Fume is required.

CONCRETE STRENGTH:

The pile cylinder strength shall be 6,000 psi minimum at 28 days and 4,000 psi minimum at time of transfer of the Prestressing Force. The cylinder strength for designated High Moment Capacity Piles (Index 20631) shall be 8,500 psi minimum at 28 days and 6,500 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 Qualified Products List (QPL). 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 STEEL:

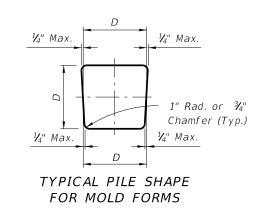
All reinforcing steel shall be Grade 60, except that spiral ties shall be manufactured from cold-drawn steel wire meeting the requirements of ASTM A82.

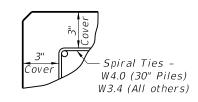
PRESTRESSING STEEL:

Prestressing steel shall be seven-wire strand, Grade 270, Low-Relaxation Strand (LRS).

CORROSION PROTECTION OF EXPOSED STRANDS: For all piles having ends exposed to the environment and not embedded under final conditions, protect the strands as follows: Prior to shipment, cut strands at appropiate end(s) back to a minmum depth of 1 inch below the concrete surface and patch with a Type F epoxy compound meeting the requirements of Specification Section 926.







DETAIL SHOWING TYPICAL COVER

DESCRIPTION: LAST REVISION

01/01/12



DOT DESIGN STANDARDS 2013

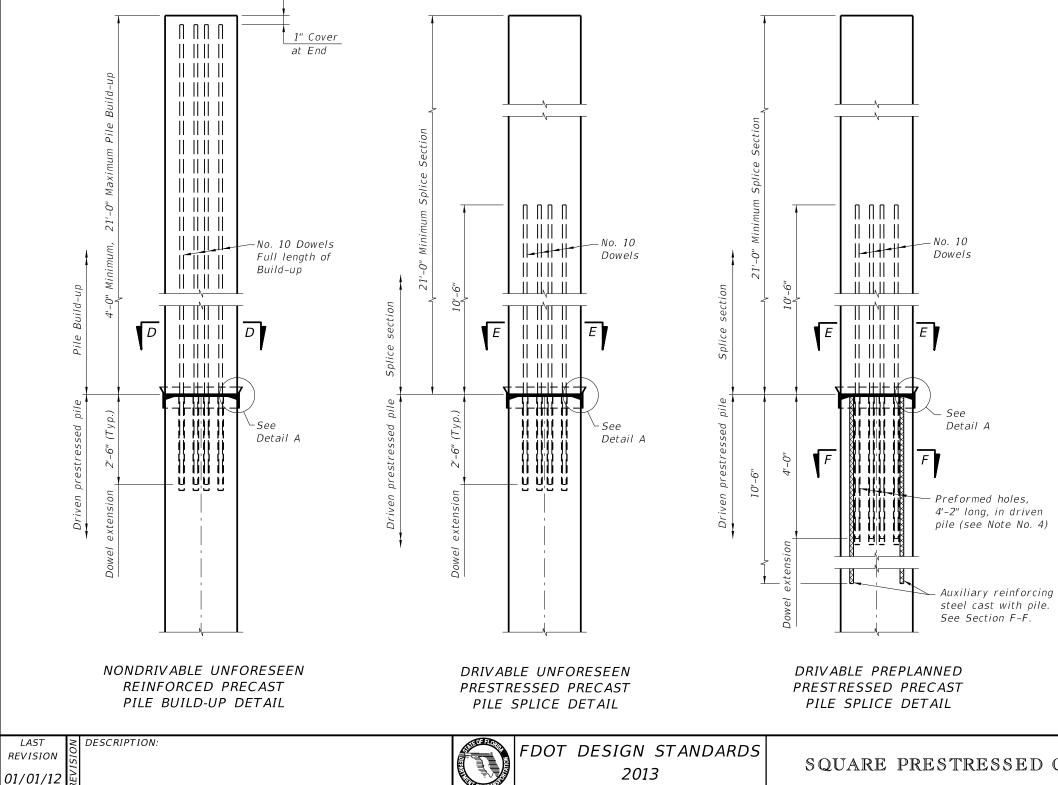
NOTES AND DETAILS FOR SQUA CONCRETE PIL

Concrete for all piles shall be Class V (Special) except designated High Moment Capacity Piles

See "GENERAL NOTES" in Structures Plans for any specific locations where the use of

ARE	PRESTRESSED	INDEX NO.	SHEET NO.
ES		20600	1

- NOTES:
- 1. For Sections D-D, E-E, & F-F see Index Nos. 20612, 20614, 20618, 20620, 20624 or 20630 for applicable concrete pile size and Pile Splice Reinforcement Details.
- 2. Prestressing strands, spiral ties and/or reinforcement are not shown for clarity.
- 3. In cases where pile splices are desired due to length limitations in shipping and/or handling, the "Drivable Preplanned Prestressed Precast Splice Detail" shall be used. Mechanical Pile Splices contained on the Qualified Products List (QPL) may also be used.
- 4. When preformed dowel holes are utilized, the 1" spiral tie pitch shall be continued to 4'-0" below the head of the pile, See Index Nos. 20618, 20620 & 20624. Preformed holes shall utilize either removable preforming material or stay-in-place corrugated galvanized steel ducts. Stay-in-place ducts shall be fabricated from galvanized sheet steel meeting the requirements of ASTM A653, Coating Designation G90, 26 gauge. Ducts shall be 2" diameter with a minimum corrugation (rib) height of 0.12 in. Ducts shall be fabricated with either welded or interlocked seams. Galvanizing of welded seams will not be required.



SQUARE PRESTRESSED CONCRETE PILE SPLICES

Full epoxy compound joint

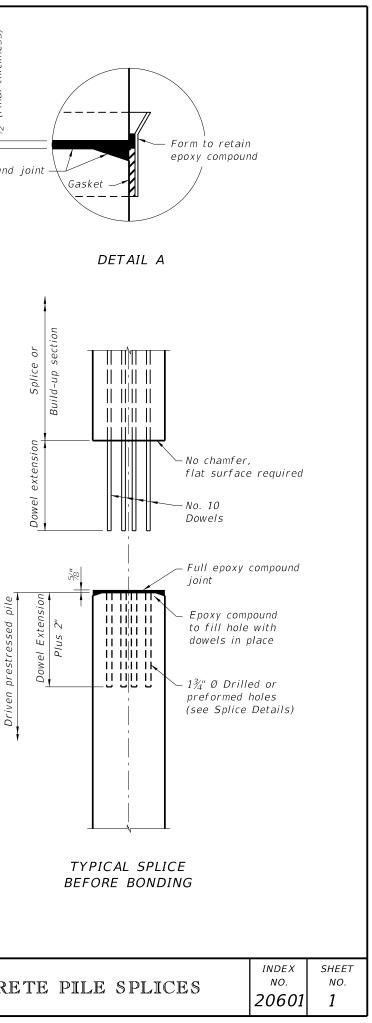
(applied),

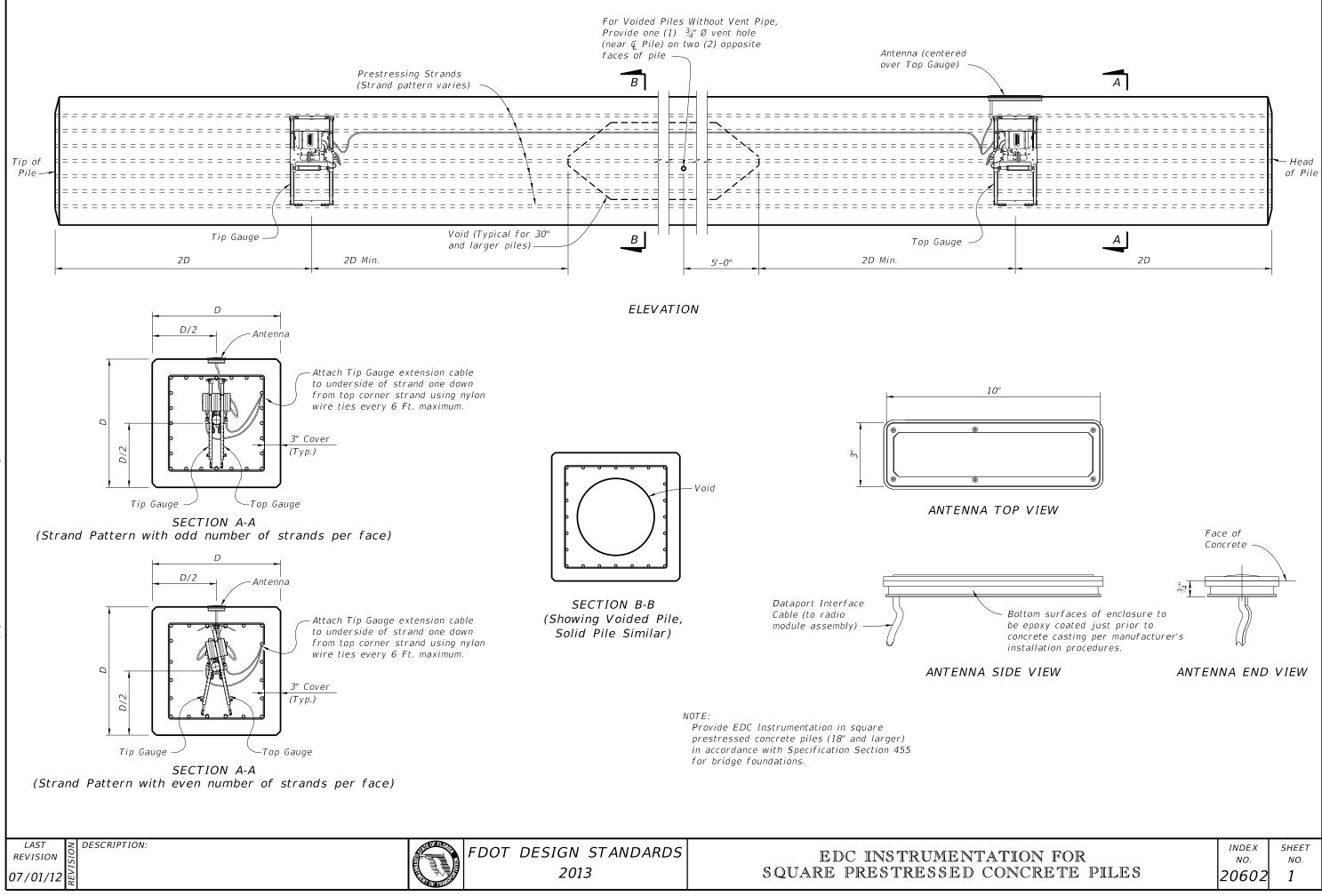
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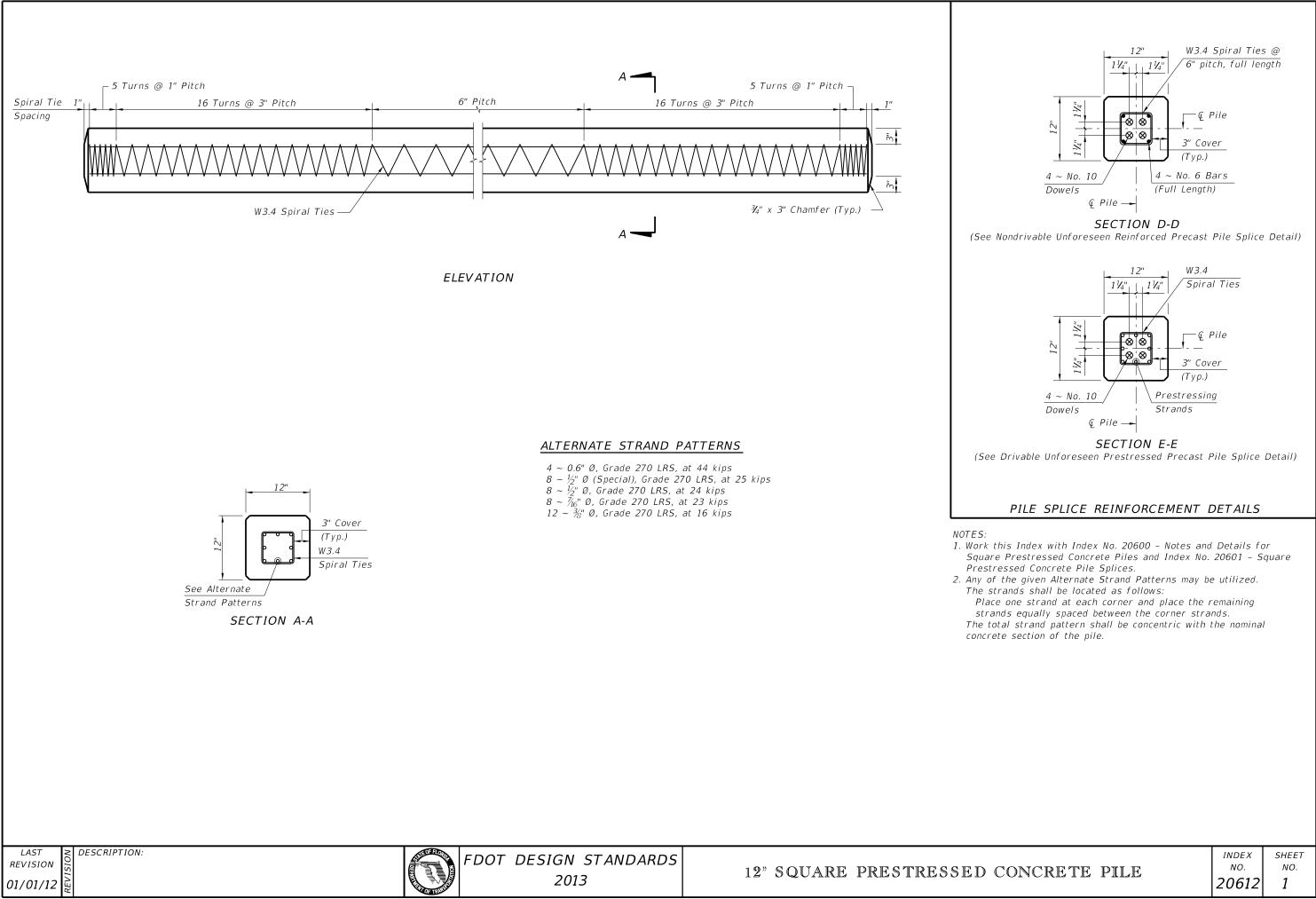
thickness)

(final

1/2"

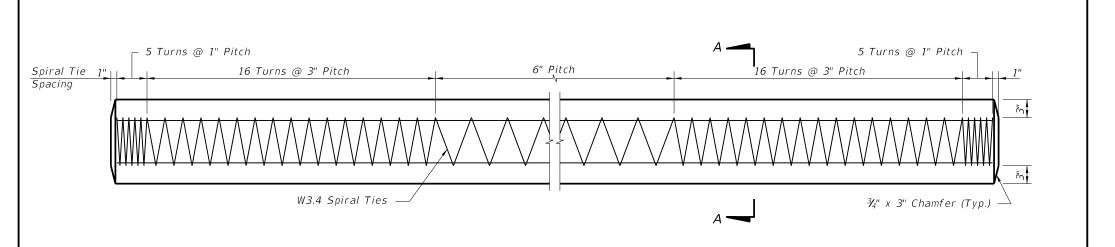




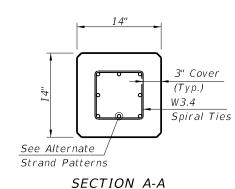


V:			









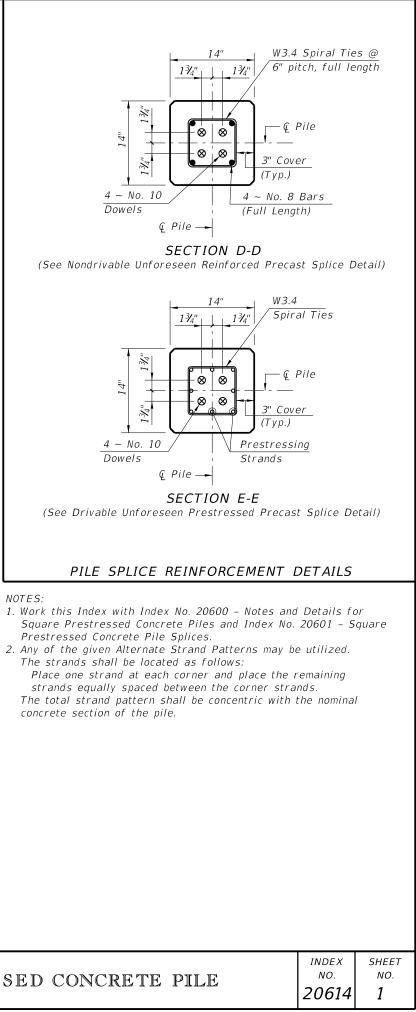
## ALTERNATE STRAND PATTERNS

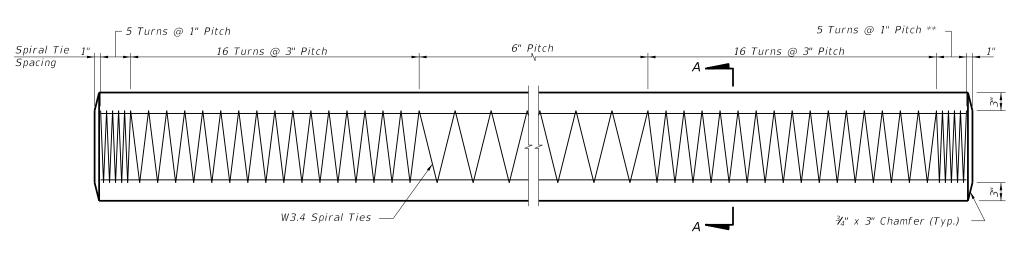
- 8 ~ 0.6" Ø, Grade 270 LRS, at 33 kips  $8 \sim \frac{1}{2}$ " Ø (Special), Grade 270 LRS, at 31 kips
- $8 \sim \frac{1}{2}$ "Ø, Grade 270 LRS, at 31 kips
- $12 \sim \overline{\gamma}_{16}$ " Ø, Grade 270 LRS, at 21 kips
- 16 ~ ⅔" Ø, Grade 270 LRS, at 16 kips

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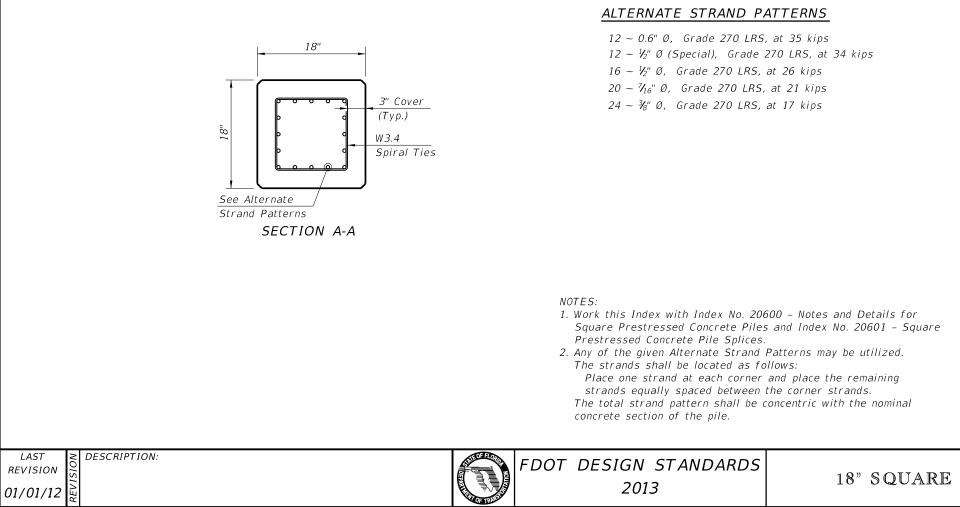
## 14" SQUARE PRESTRESSED CONCRETE PILE





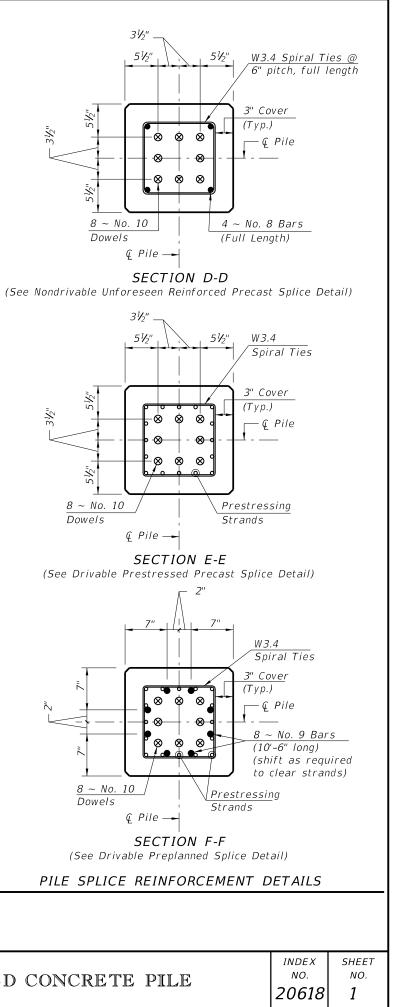


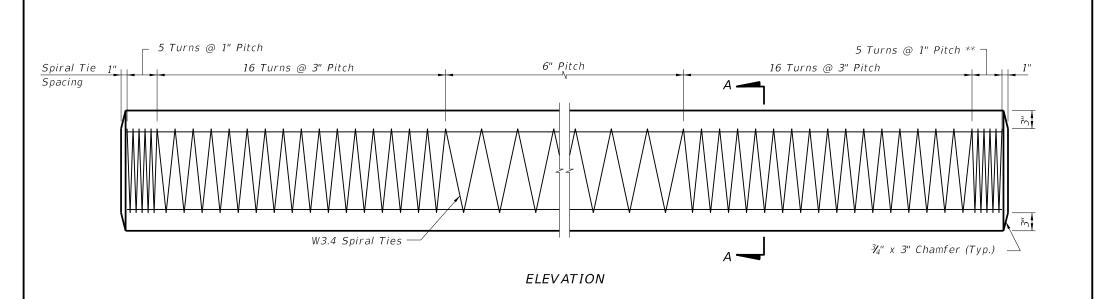
\*\* See Note No. 4 on Index No. 20601



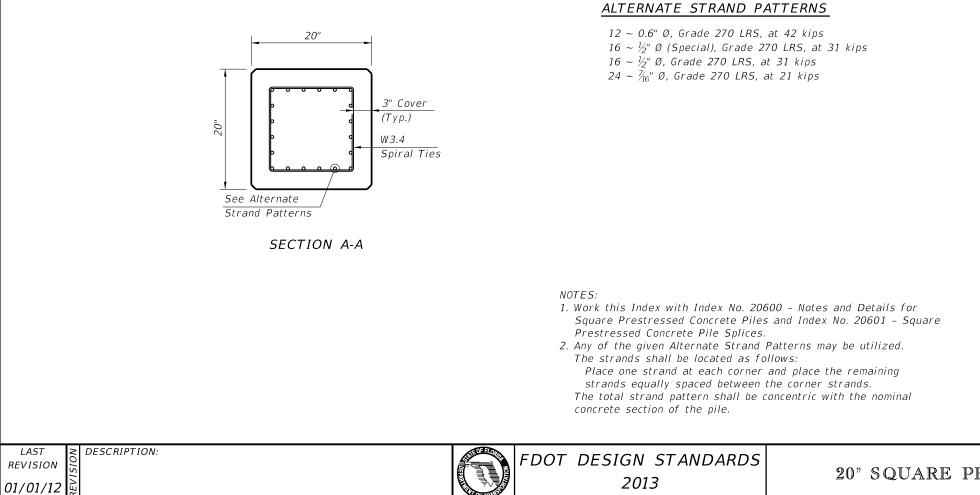
18" SQUARE PRESTRESSED CONCRETE PILE

LAST



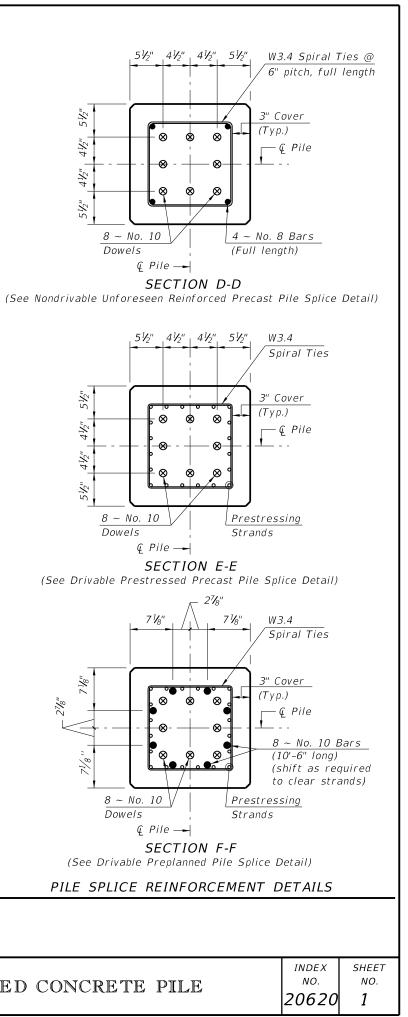


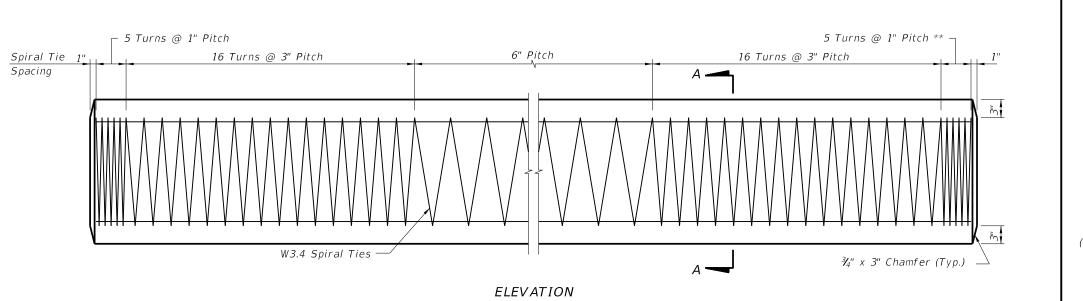
\*\* See Note No. 4 on Index No. 20601



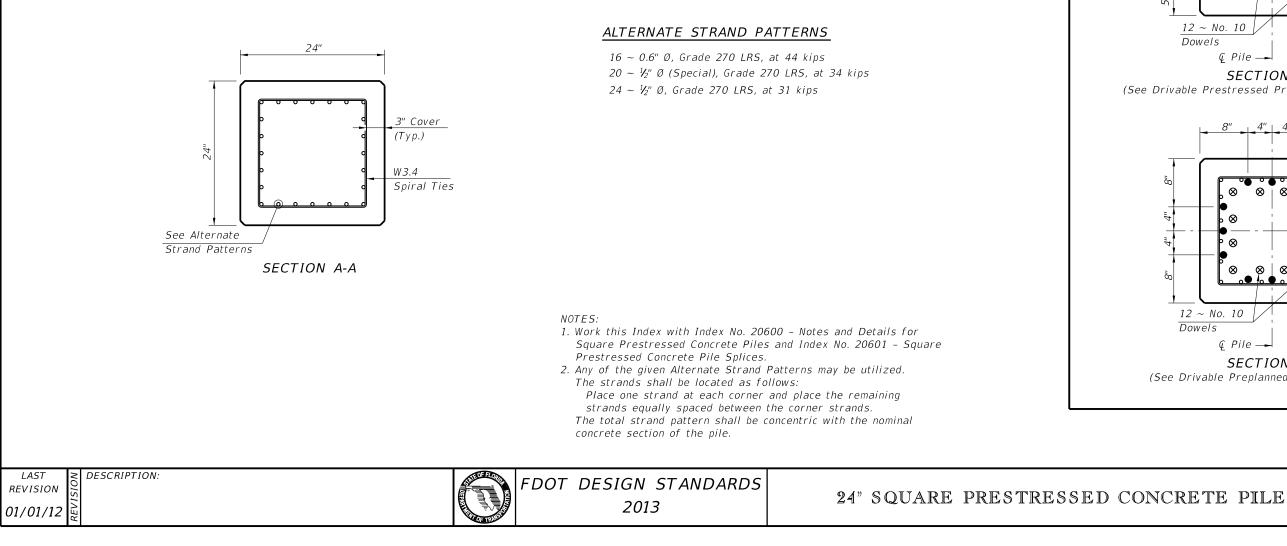
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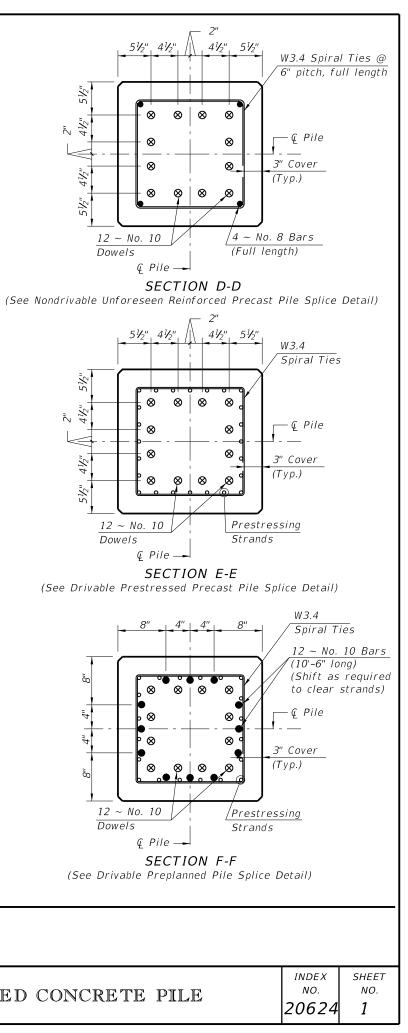
20" SQUARE PRESTRESSED CONCRETE PILE

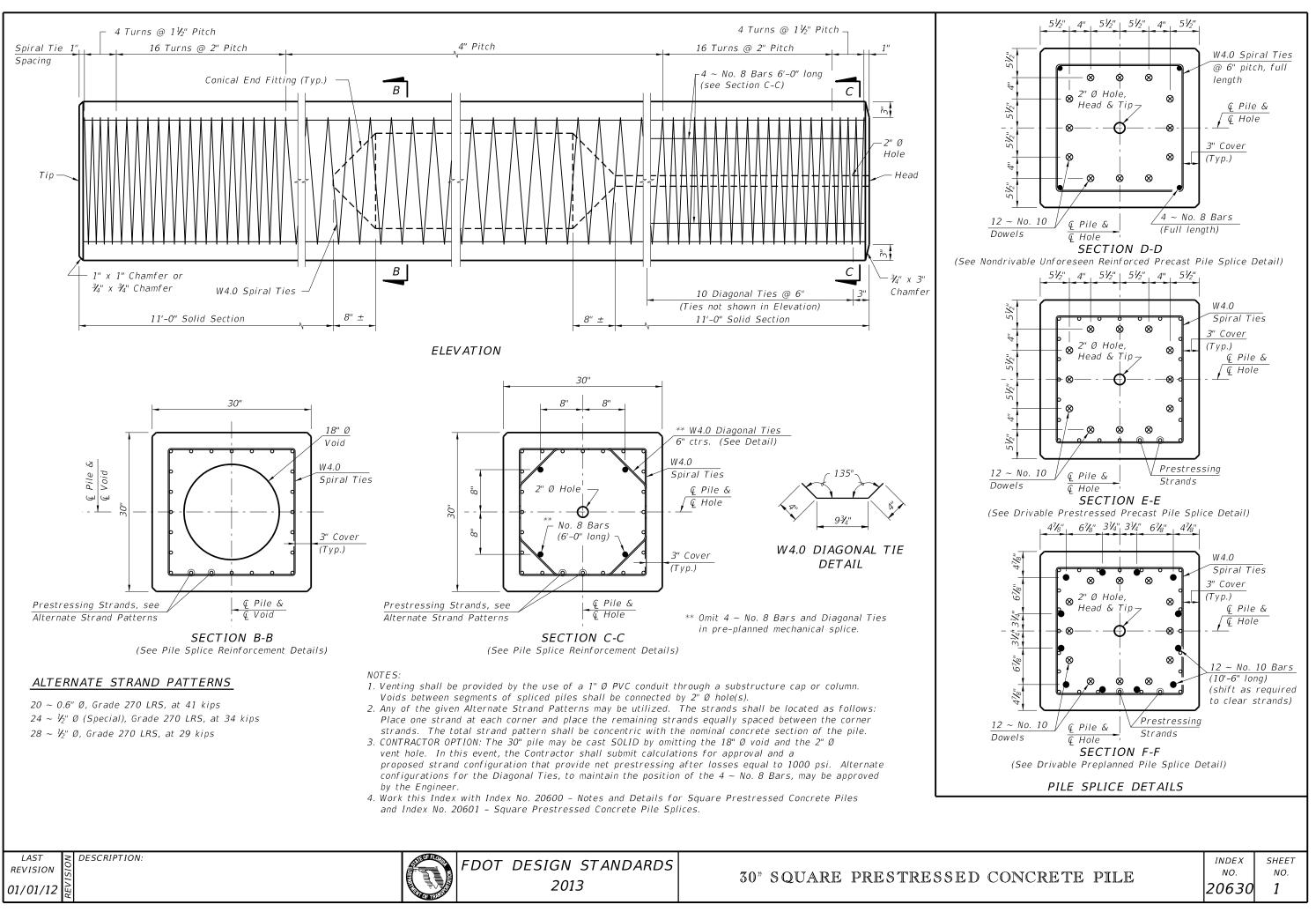




\*\* See Note No. 4 on Index No. 20601

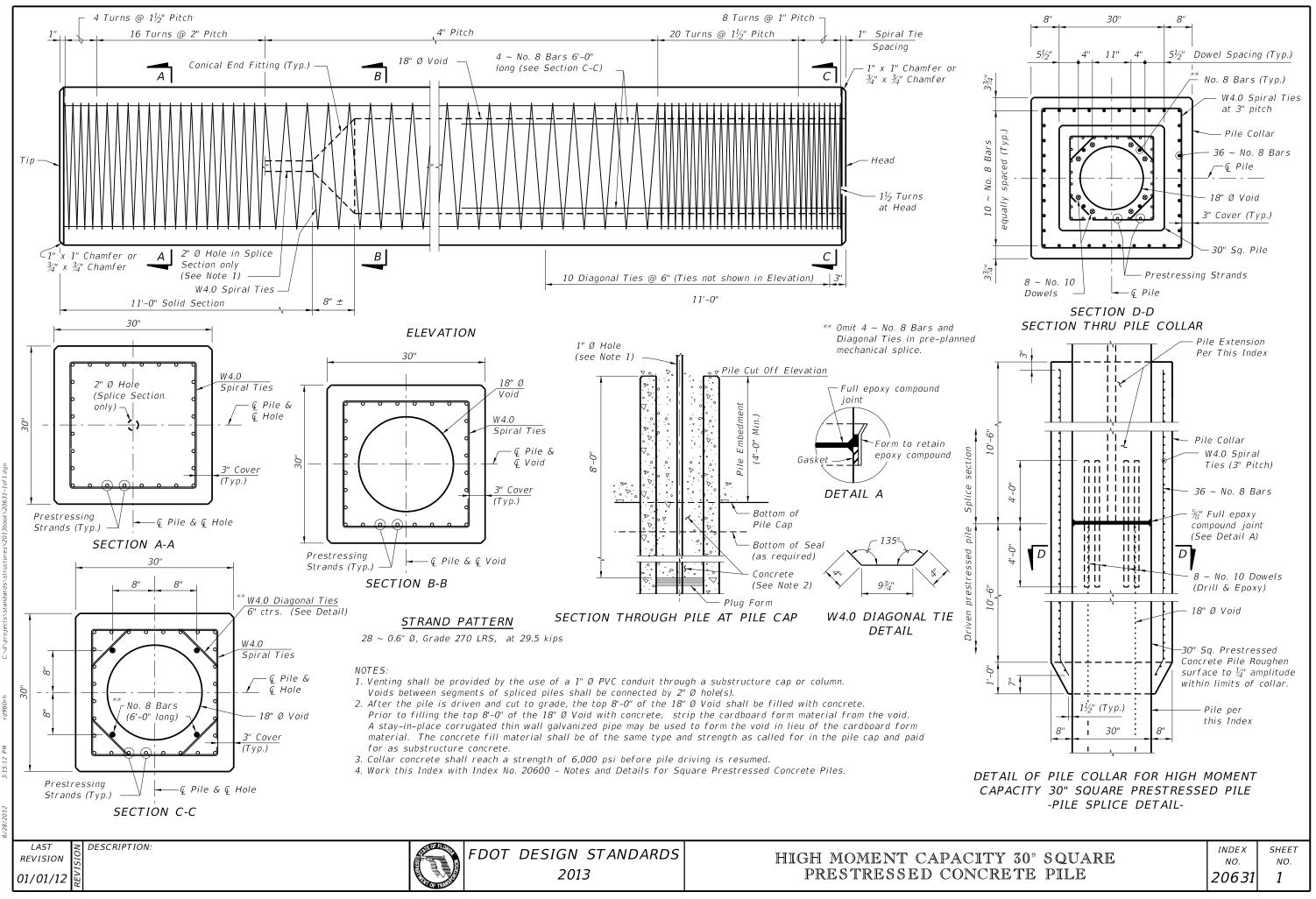


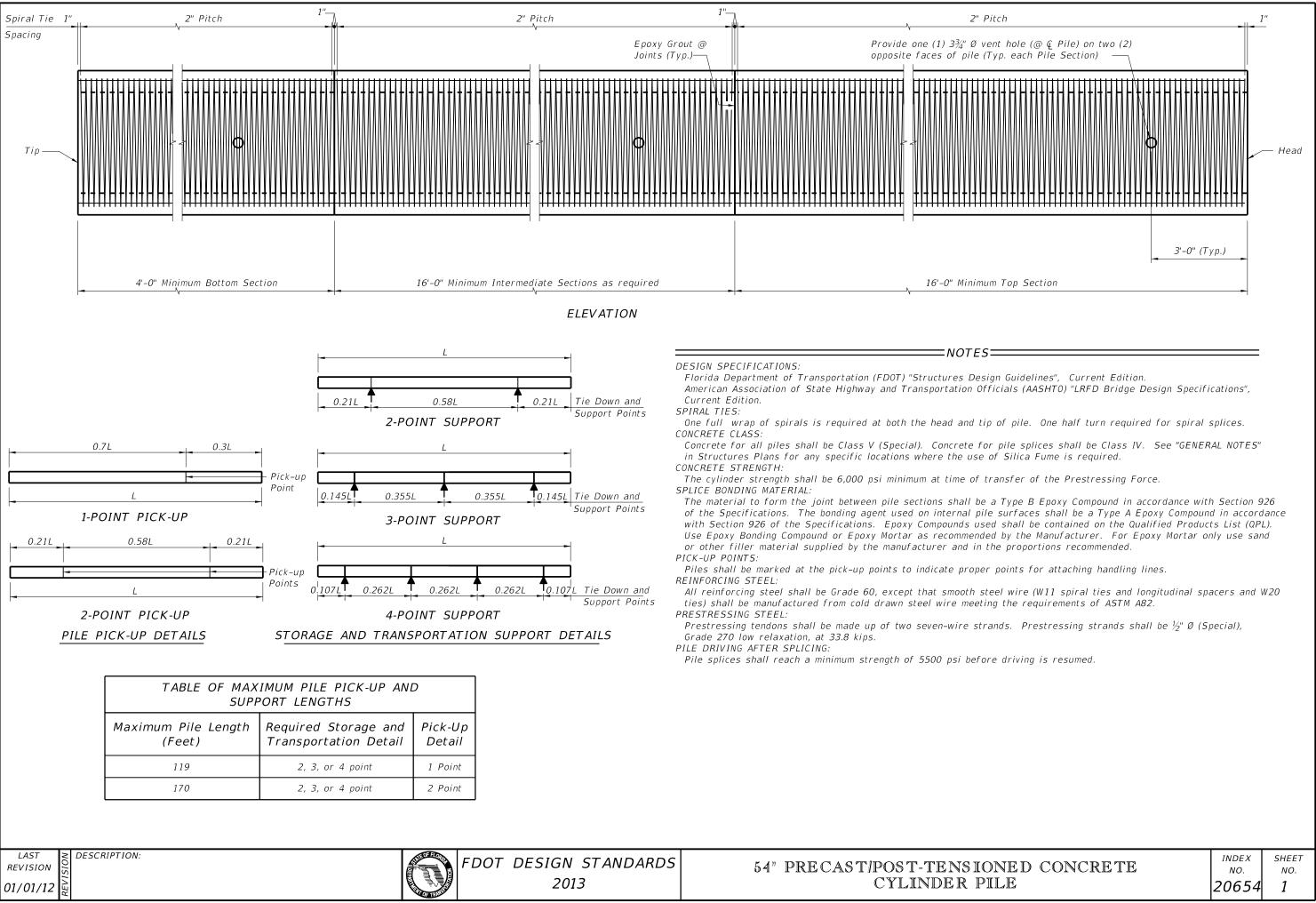




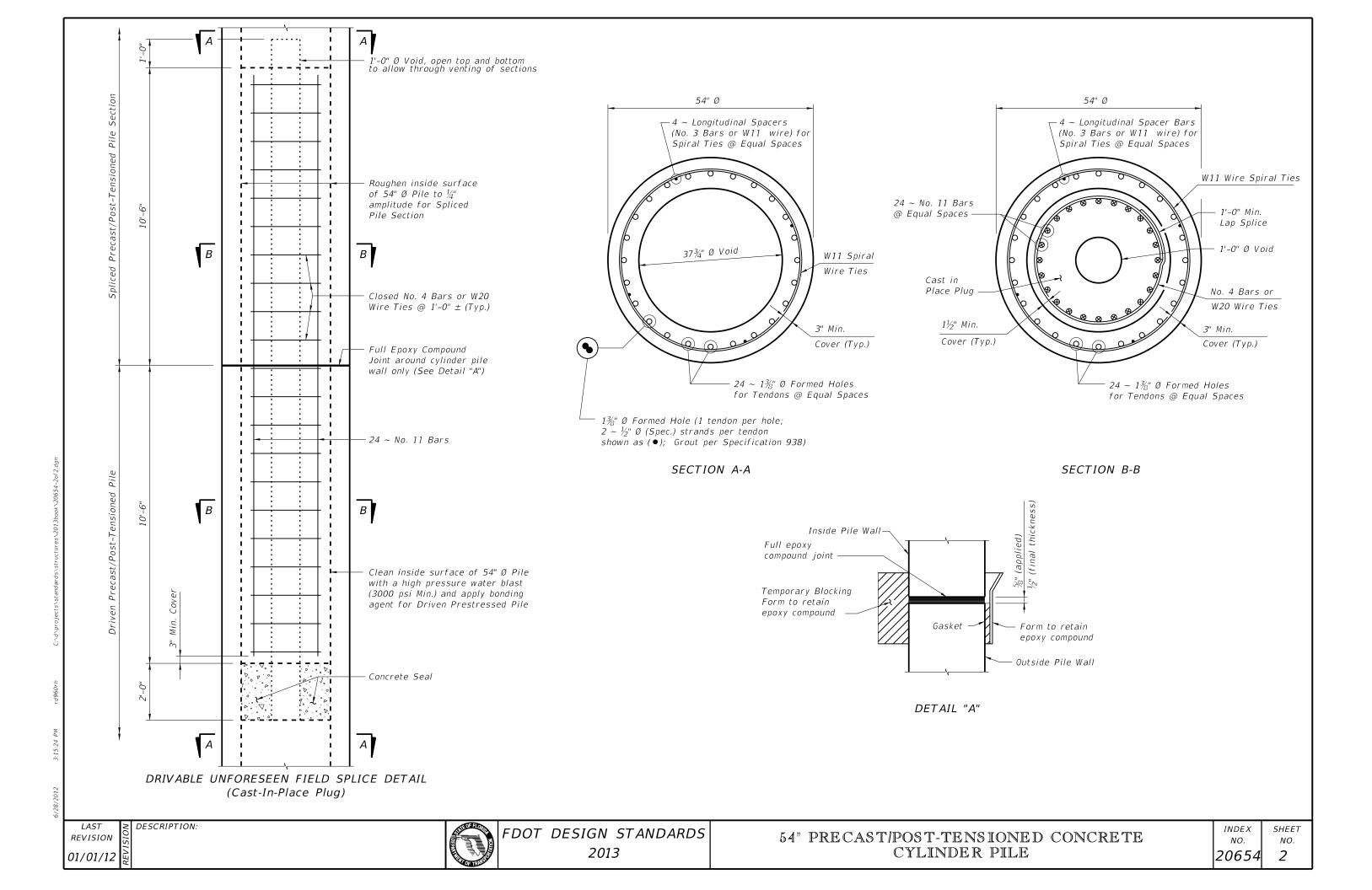
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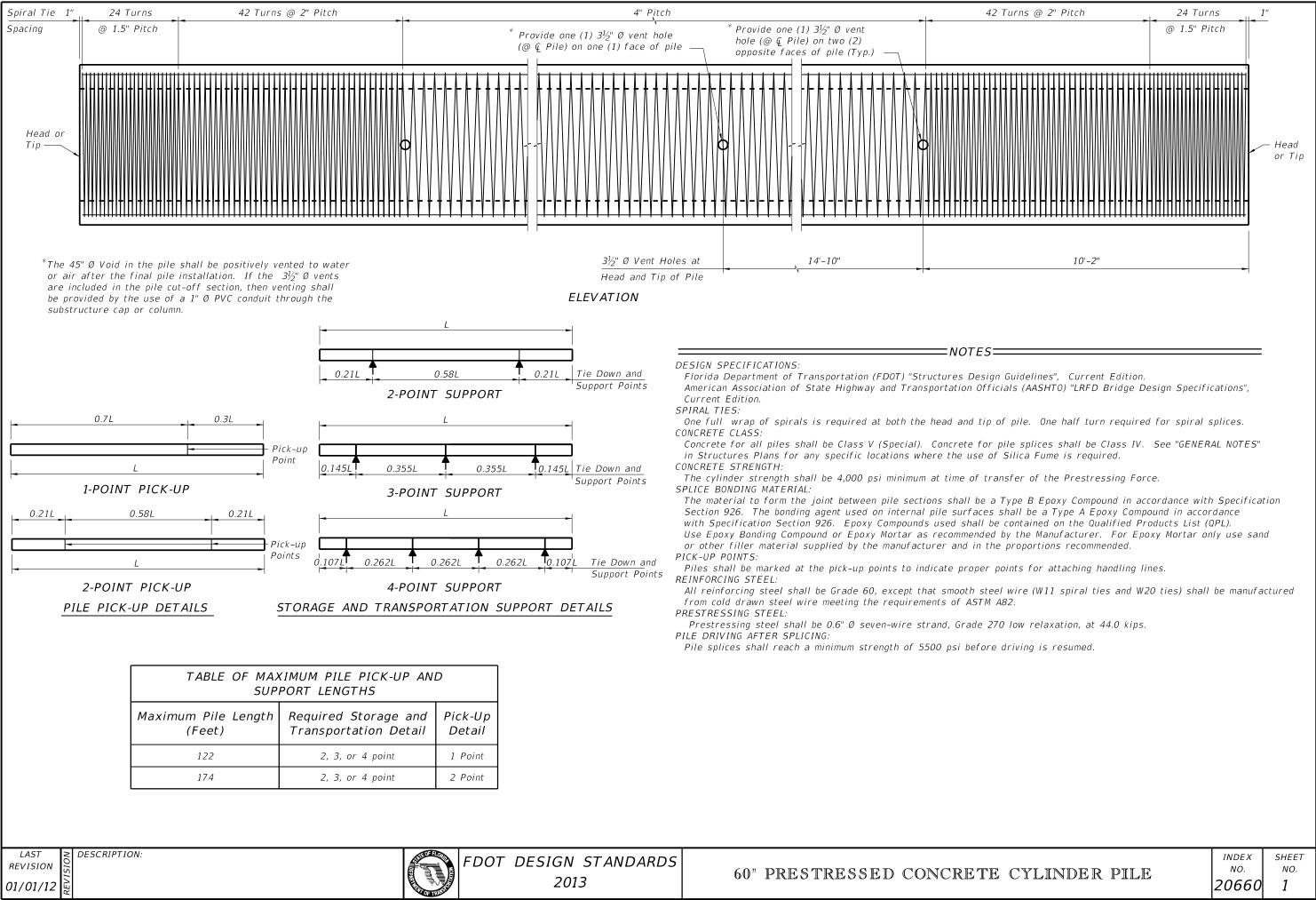
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