

**PROJECT SPECIFIC TECHNICAL SPECIFICATIONS
FOR THE PURCHASE OF
SPUN CONCRETE TRANSMISSION POLES
FOR THE CIRCUIT 416 NICHOLS CREEK
(4 POLES)**

JEA PROJECT NO: 8008460
REQUESTED BY: Shawn Parnell
UPDATED: May 22, 2025

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1. SCOPE

- 1.1 This specification outlines the required information needed for the purchase, fabrication, and delivery of Spun Concrete Transmission poles for the "SPUN CONCRETE TRANSMISSION POLES FOR THE CIRCUIT 416 NICHOLS CREEK (4 POLES)". This specification complements the "General Technical Specifications for the Purchase of Spun Concrete Transmission Poles", Rev 1.2".
- 1.2 This specification includes the following attachments:
 - a) Bid Form
 - b) Pole Drawings, containing the configuration and hole drilling details of the pole(s)
 - c) Pole Attachment Details
 - d) PLS-POLE backup files for the pole(s), containing loading data and geometry (n/a for this bid request, see 2.3, below)
- 1.3 The Project Engineer (JEA) for this purchase is:
Shawn Parnell
Cell: (904) 625-3880
Email: parnsc@jea.com

2. DESIGN

Structures shall be designed for the configuration, drilling details, loadings and limitations contained in these and the "General Technical Specifications for the Purchase of Spun Concrete Transmission Poles", Rev 1.2".

- 2.1 Pole Configuration: The configuration of each pole to be provided is shown in the "Pole Drawings" attachment of these specifications. The Drawings specify the dimensions of the poles, the orientation, drilling details, and attachment locations for insulators, etc.
- 2.2 Pole Attachment Details: Details of all attachments are shown in the "Attachment Details" attachment of these specifications. These details illustrate and identify required dimensions on all the insulator attachments, etc. that are to be provided with each pole. Attachments that support any equipment if any (transformers, streetlights, etc. modeled in PLS-POLE) need to be analyzed to determine if they can withstand the dead loads of that equipment. It is the responsibility of the fabricator to ensure that the attachments are fabricated and can withstand the loads placed on them as specified in these specifications and attachments.
- 2.3 Pole Load Data: In lieu of PLS-Pole backup files and loading data (.lca) files, the required pole strengths are specified as a horizontal load applied at 2 feet from the tip of the pole, which can be translated into the ultimate pole moment capacity at the ground line. The horizontal load has been selected from the following incremental values, corresponding to the pole strength required by the PLS-CADD line model.
 - 2.3.1 16 kip, 20 kip, 28 kip

The PLS-CADD line model checked each structure for suitability to support the loading conditions contained in the project Design Criteria, including NESC 250B Light loading and NESC 250C 120 mph extreme wind loading, with corresponding overload factors applied. The PLS-CADD line model already considers loading due to application of the associated wind pressures onto the poles. Additionally, the poles have been designed to meet the deflection limits as identified in the project Design Criteria.

3. DIMENSION RESTRICTIONS

- 3.1 Wall Thickness: All structures shall have a **minimum of a three and one-half (3-1/2) inch** wall thickness at the pole tip, and an outside total taper of not less than 0.216 inches per foot.
- 3.2 Top Diameter: The **minimum tip diameter** for all poles shall be fifteen (15) inches and the **maximum tip diameter** shall not exceed twenty-five (25) inches. The Manufacturer shall notify the Owner if the strength requirements of a controlling load case dictate a greater tip diameter.
- 3.3 Bottom Diameter: The bottom diameter will be a function of the tip diameter and the standard 0.216 inches per foot taper. No poles with straight taper or reverse taper segments are required for this project.

4. POLE ATTACHMENT HARDWARE

- 4.1 The pole manufacturer shall provide all ground inserts, thru holes, threaded inserts, and a pole cap on each pole as shown in the "POLE DRAWINGS" and "POLE ATTACHMENT DETAILS" of these specifications.
 - 4.1.1 Design of the threaded inserts shall be at the discretion of the pole manufacturer. Inserts shall allow standard Imperial-thread machine bolts to be attached on opposite faces of the pole. The threaded portion shall be of sufficient length, and the inserts shall be secured within the pole, such that the final installation provides at least the equivalent strength of a comparable through-bolt installation.
 - 4.1.2 Pole caps shall be provided and secured on the top of each pole. Caps shall be in the shape of a cone, fabricated from steel and hot-dip galvanized. Two 1/2"-13 nuts shall be welded to the cap on opposite sides to allow attachment of ground lugs.
- 4.2 Bolts, nuts, washers and other hardware required for attaching insulators, cross-arms, transformers, guy wires, and miscellaneous cables to poles will be supplied by JEA and are not to be provided by the manufacturer.

5. DELIVERY LOCATION AND DATE

- 5.1 Delivery of all poles and hardware will be to storage areas near the job site within the JEA service area. For general location see the Pole Delivery Maps in section 8 of these specifications. The jobsite is located within a distribution corridor near Nichols Creek and Heckscher Dr Jacksonville, Florida. The delivery location of each pole will be at the individual pole locations. See Section 10 for General Locations.

- 5.2 Specific directions for delivery will be provided by the construction contractor. The unloading will be done by the owner's forces and equipment or by a contractor representing the owner. The owner also reserves the right to allow a contractor representing the owner to coordinate delivery with the supplier. The supplier shall allow four (4) hours "turn around" time for unloading each pole. Untimely delivery, either ahead of or behind agreed upon delivery schedules, shall not be a cause for claim to the owner for any costs incurred by the Manufacturer. Freight is to be included in the bid price. **All communications regarding the delivery date/time are to be verified and approved by email with the JEA Project Engineer even if verified and coordinated verbally with the contractor representing JEA. JEA will not be responsible for any extra costs incurred by the manufacturer for delivery that was not approved by the JEA Project Engineer.**

The poles and all associated hardware/attachments for the structures shall be delivered on the following tentative dates:

- Between August 25 and September 1, 2025

Due to unforeseeable delays, the contractor representing the owner will update and coordinate new delivery dates with the pole supplier should they change.

6. BID FORM

PROPOSAL FOR SPUN CONCRETE TRANSMISSION POLES

PROJECT: SPUN CONCRETE TRANSMISSION POLES FOR THE CIRCUIT 416 NICHOLS CREEK (4 POLES)

Bidder Please Write Company Name Here: _____

Bid Item No.	Standard Design No.	Structure No.	Strength / Total Length / UD Holes	Required Quantity	Unit Price	Extended Bid Price
1	A1244C 20k-085-30	4604	20 kip / 85'	1	\$ _____	\$ _____
2	A1241C 28k-115-40	4644	28 kip / 115'	1	\$ _____	\$ _____
3	A1241C 16k-120-37	4700	16 kip / 120'	1	\$ _____	\$ _____
4	A1246C 28k-095-39	4766	28 kip / 95'	1	\$ _____	\$ _____
					Total =	\$ _____

My (our) lump sum bid for the items described above and in the tabulated total quantities is: \$ _____.

I (we) agree to provide approval drawings within _____ calendar days after receipt of the "notice to proceed" / purchase order.

And I (we) agree to complete deliveries of all items within _____ calendar days after the approval of the design calculations and approval drawings.

SIGNED FOR BIDDER: _____
TITLE: _____

7. POLE DRAWINGS

1) Pole Drawings:

Structure Type A1244C – Double Deadend 90°, Full Tension to Full Tension, Guyed, 3-Phase

Structure: #4604

2) Pole Drawings:

Structure Type A1241C – Double Dead-end, 180°, Full Tension to Full Tension, 3-Phase

Structure: #4644

3) Pole Drawings:

Structure Type A1241C-Mod – Double Dead-end, 180°, Full Tension to Full Tension, 3-Phase,
Guyed

Structure: #4700

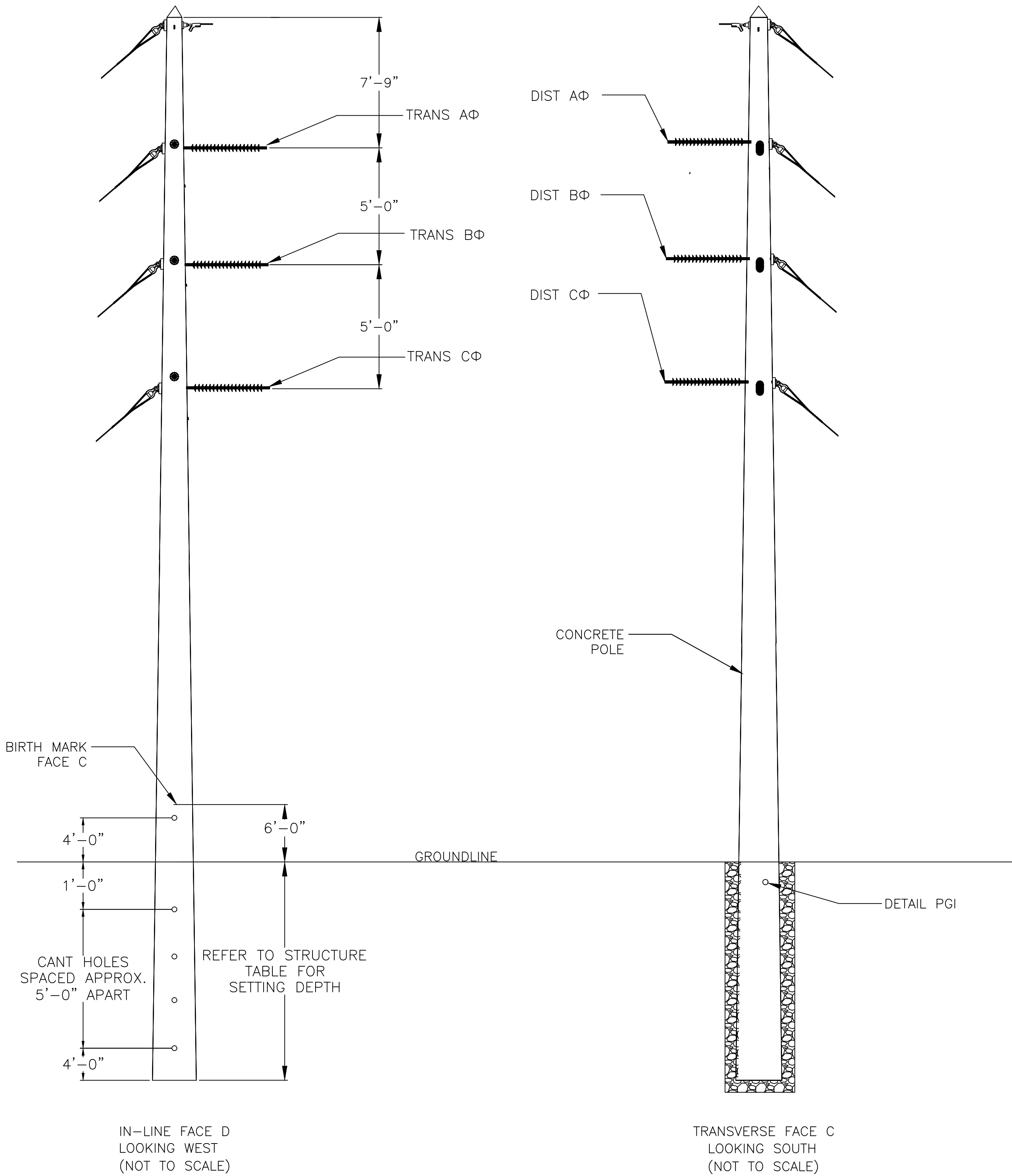
4) Pole Drawings:

Structure Type A1246C – Double Deadend 90°, Full Tension to Slack Tension, Guyed, 3-Phase

Structure: #4766

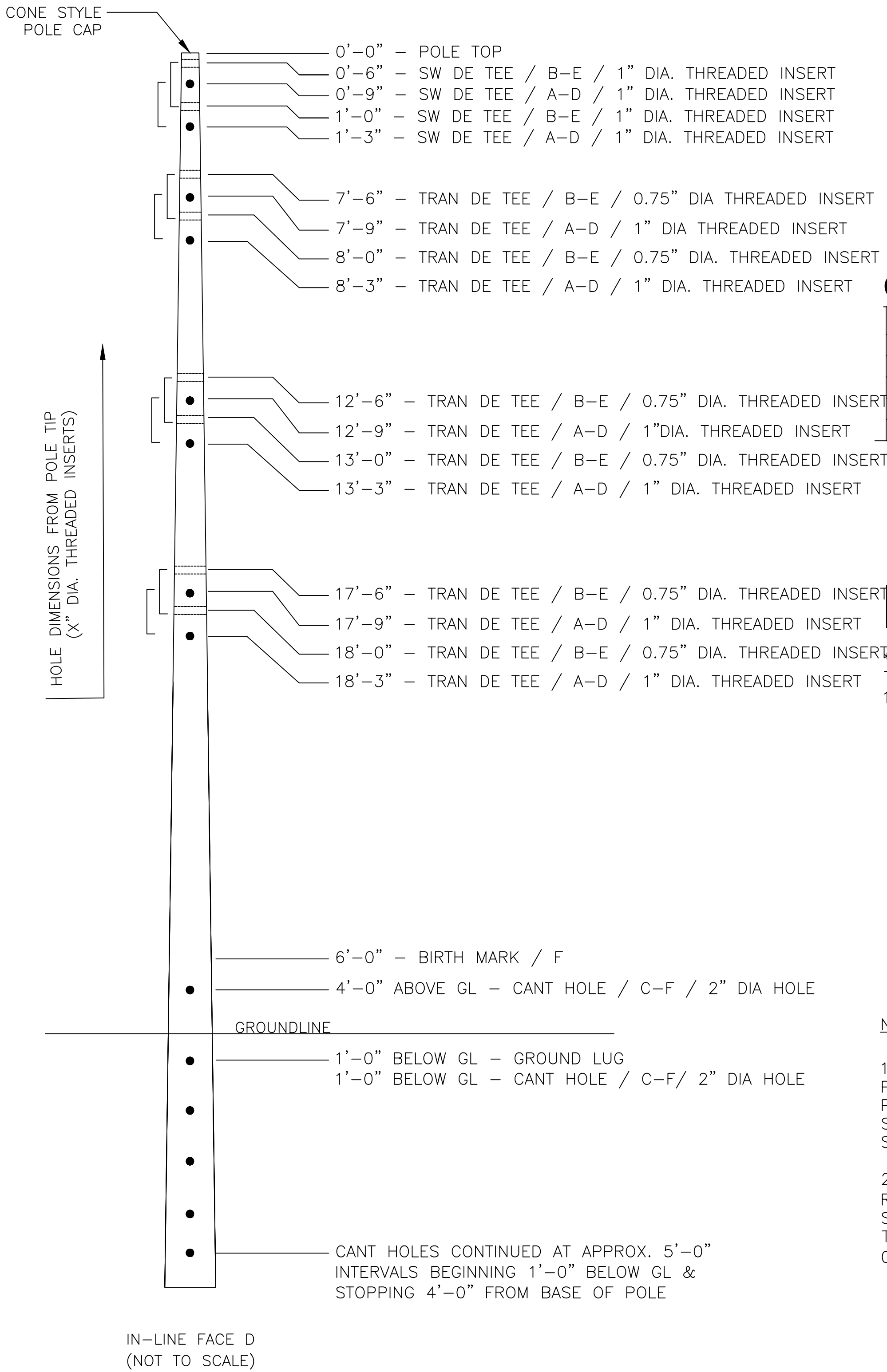
STRUCTURE TYPE
A1244C*954S, 69KV, DOUBLE DEAD-END 90°, FULL TENSION TO FULL TENSION, 3-PHASE

ELEVATION VIEW

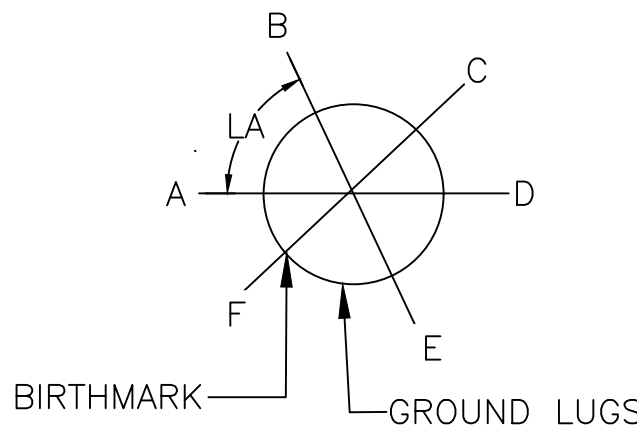


DRILLING DETAIL

(DIMENSIONS SHOWN FROM POLE TIP)



POLE TIP VIEW



GROUNDING LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-6"	-
TRANS AΦ	8'-6"	-
TRANS BΦ	13'-6"	-
TRANS CΦ	18'-6"	-
GROUND ROD	-	-1'-0"

STRUCTURE TABLE

STR NO.	POLE LENGTH (FT)	EMBED (FT)	CLASS	DIST UB	LA*
4604	85	30	20KIP	-	-85

LA IS THE ANGLE BETWEEN FACES A AND B.
THE ANGLE BETWEEN FACES B AND C IS
 $1/2*(180^\circ - LA)$

NOTES:

- ALL REFERENCED DETAILS ARE PROVIDED IN THE PROJECT SPECIFIC TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES. POLES SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DETAILS.
- POLES ARE TO BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES, REVISION 1.2, UPDATED ON 01/16/2020.

NOTICE:

CONTRACTOR SHALL VERIFY ALL CONDITIONS ON JOB SITE & NOTIFY PROJECT MANAGER AND ENGINEER OF ANY VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS BEFORE PROCEEDING WITH ANY CONSTRUCTION.



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STATE: _____

DATE: _____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW
0	11/21/2024		ISSUED FOR BID	BJH	JRC

ENGINEER OF RECORD		
STATUS	BY	DATE
DRAWN	BJH	11/01/24
ENGINEER	BJH	11/01/24
CHECKED	EW	11/01/24
APPROVED	JRC	11/03/24
SCALE:		
NTS		



NICHOLS CREEK
26.4kV CIRCUIT 416
SPUN CONCRETE POLE BORINGS
A1244C*954S

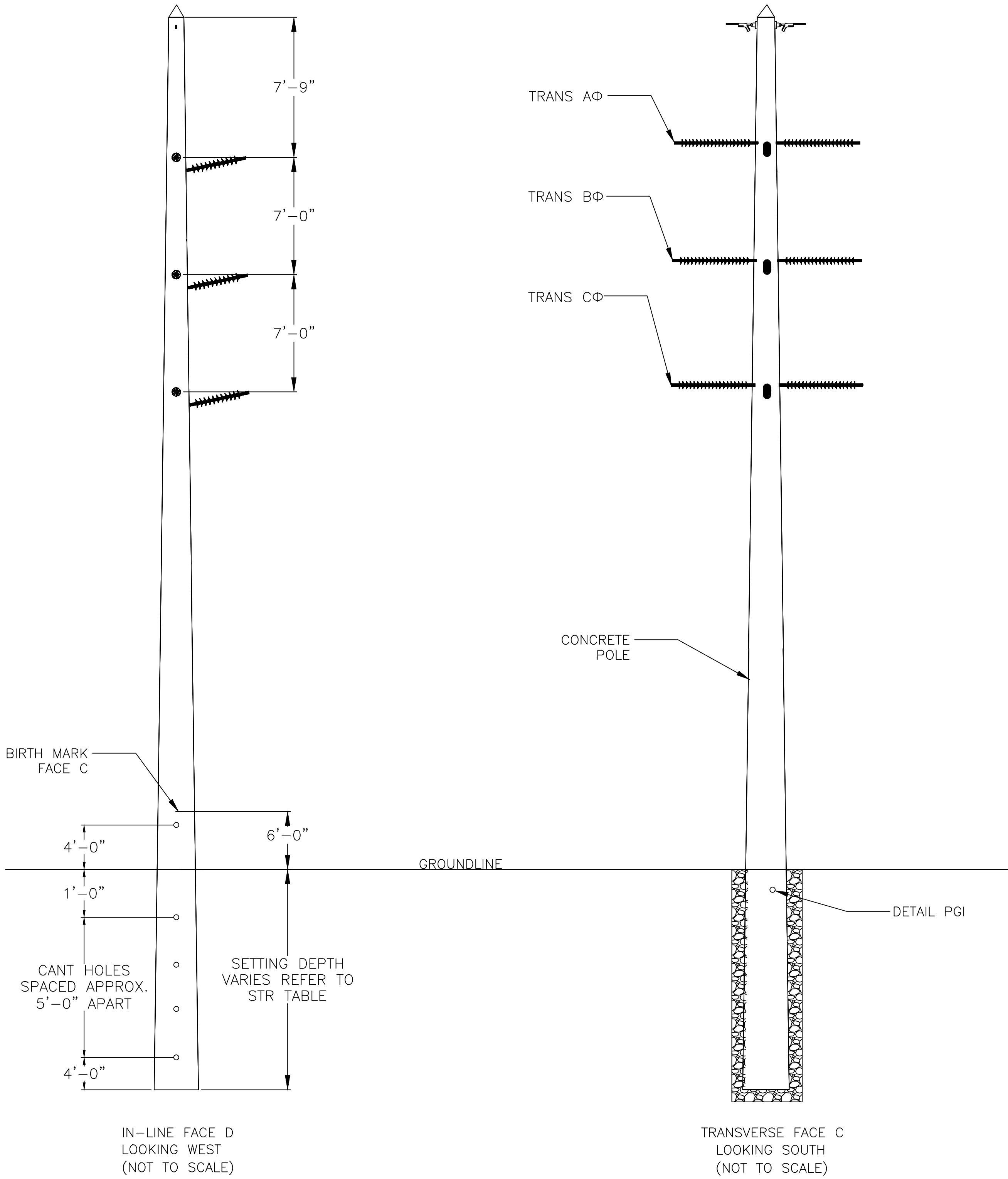
DISTRIBUTION ENGINEERING

PROJECT NO:	8009528
DRAWING NO:	CONC BORING
SHEET NO:	1 OF 4

STRUCTURE TYPE

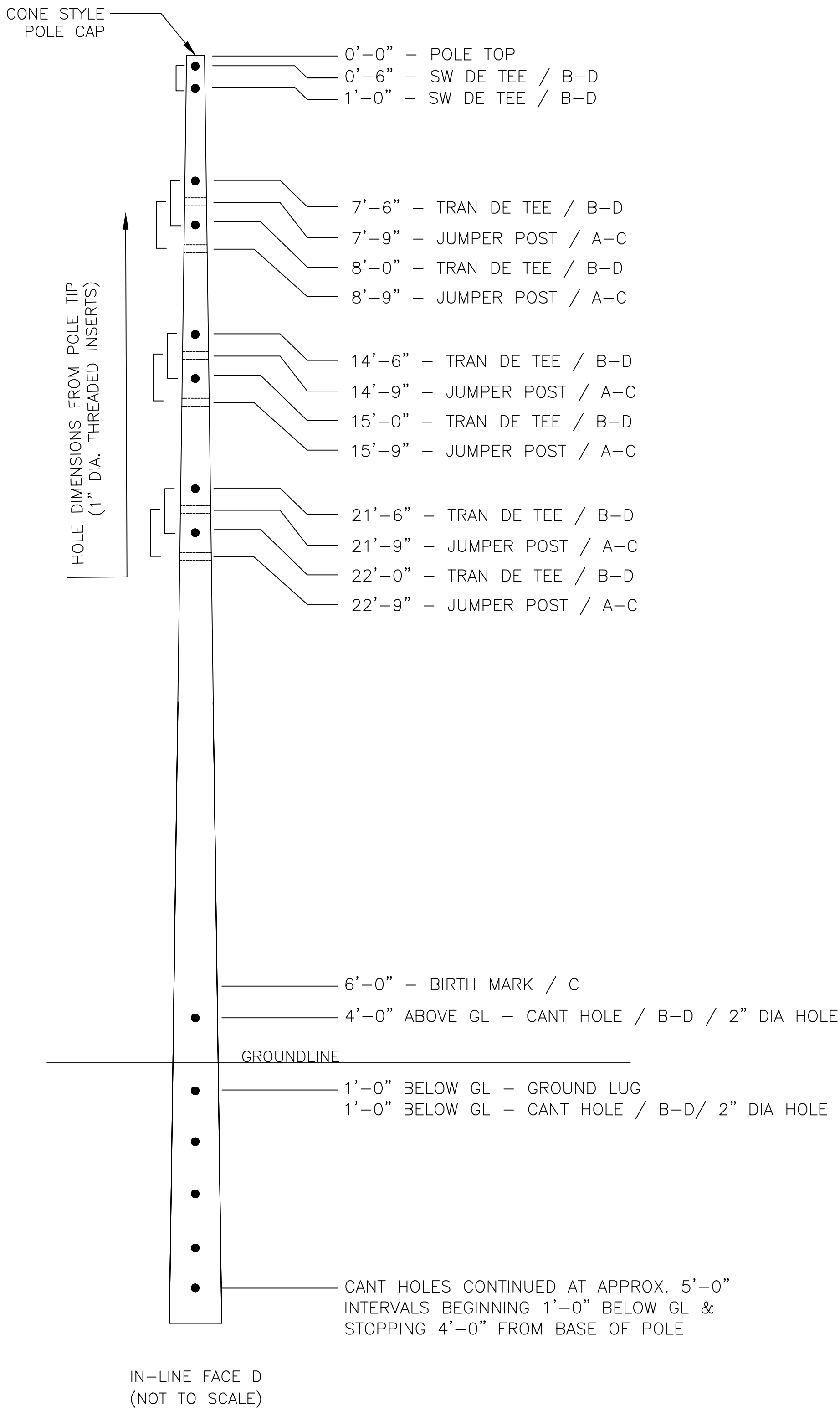
A1241C_MOD*954S, 69KV, DOUBLE DEAD-END 180°, FULL TENSION TO FULL TENSION, 3-PHASE

ELEVATION VIEW

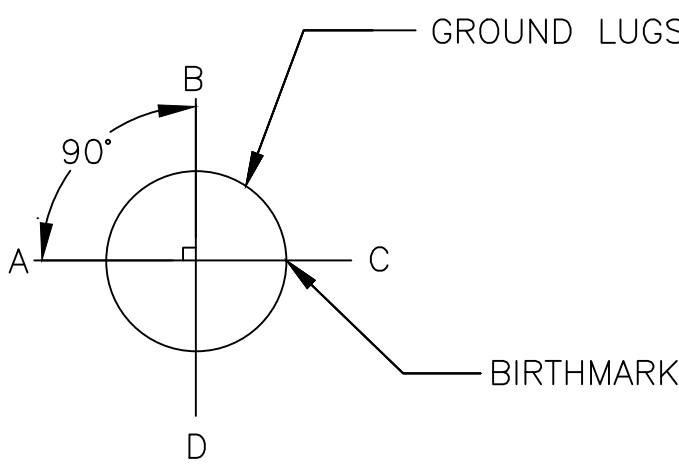


DRILLING DETAIL

(DIMENSIONS SHOWN FROM POLE TIP)



POLE TIP VIEW



GROUNDING LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-6"	-
TRANS AΦ	8'-6"	-
TRANS BΦ	15'-6"	-
TRANS CΦ	22'-6"	-
GROUND ROD	-	-1'-0"

STRUCTURE TABLE

STR NO.	POLE LENGTH (FT)	EMBED (FT)	CLASS
4644	115	40	28KIP

NOTES:

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DATE: _____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW
0	11/21/2024		ISSUED FOR BID	BJH	JRC

ENGINEER OF RECORD		
STATUS	BY	DATE
DRAWN	BJH	11/01/24
ENGINEER	BJH	11/01/24
CHECKED	EW	11/01/24
APPROVED	JRC	11/03/24
SCALE: NTS		

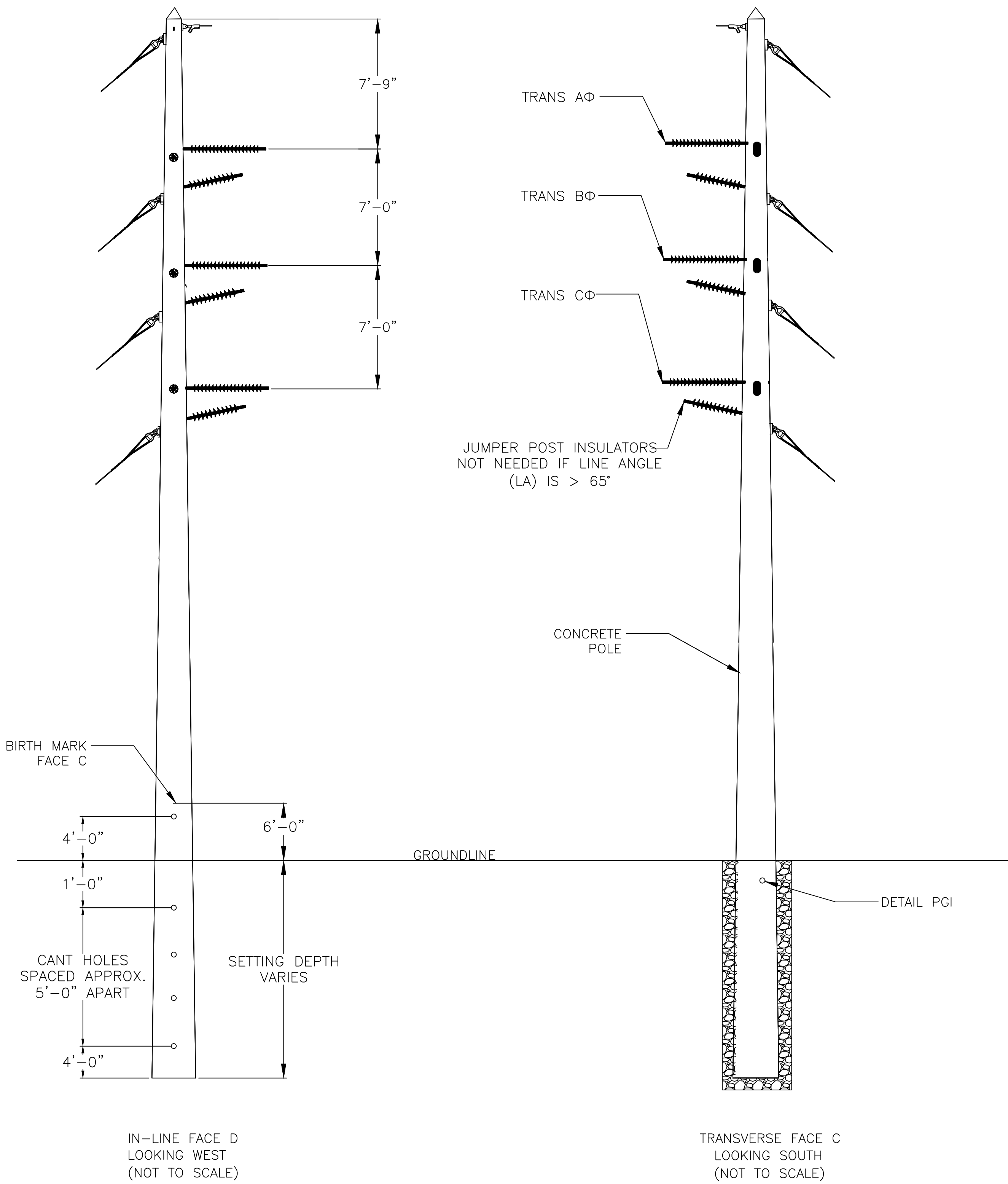


NICHOLS CREEK
26.4kV CIRCUIT 416
SPUN CONCRETE POLE BORINGS
A1241C_MOD*954S
DISTRIBUTION ENGINEERING

PROJECT NO: 8008460
DRAWING NO: CONC BORING
SHEET NO: 2 OF 4

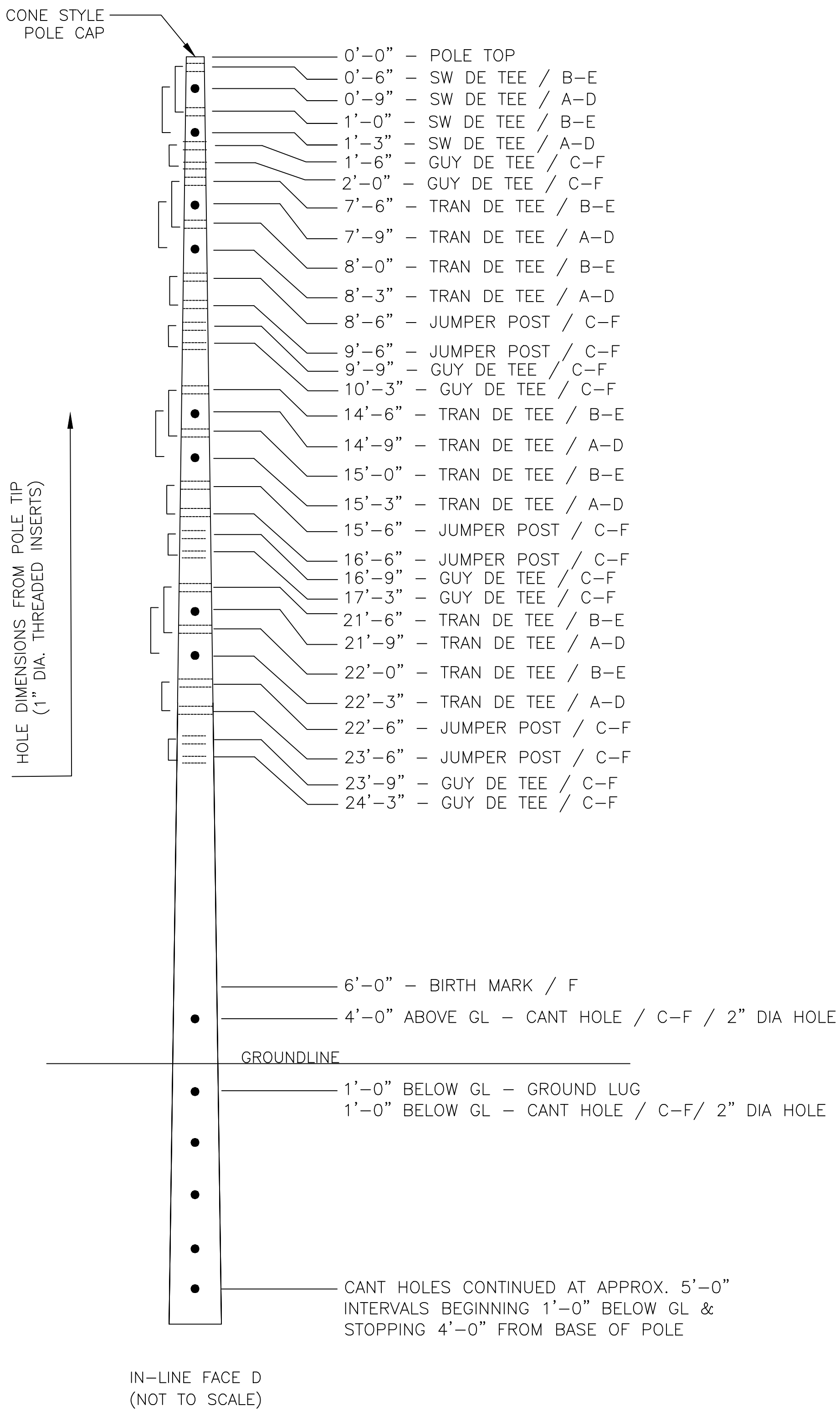
STRUCTURE TYPE
A1241C_MOD*954S, 69KV, DOUBLE DEAD-END 180°, FULL TENSION TO FULL TENSION, 3-PHASE

ELEVATION VIEW

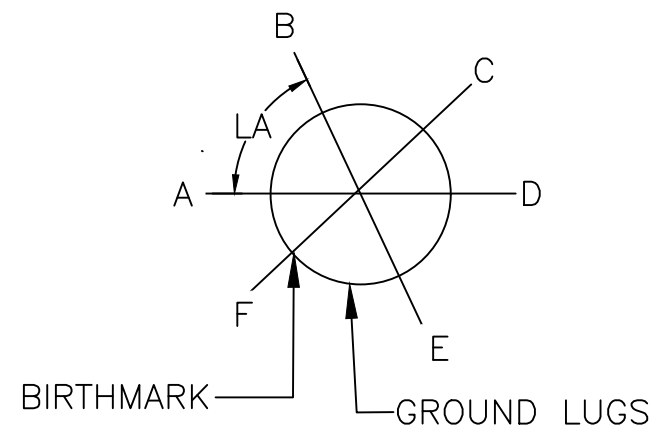


DRILLING DETAIL

(DIMENSIONS SHOWN FROM POLE TIP)



POLE TIP VIEW



GROUNDING LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-6"	-
TRANS AΦ	8'-6"	-
TRANS BΦ	15'-6"	-
TRANS CΦ	22'-6"	-
GROUND ROD	-	-1'-0"

STRUCTURE TABLE

STR NO.	POLE LENGTH (FT)	EMBED (FT)	CLASS	DIST UB	LA*
4700	115	32	16KIP	-	-11°

*LA IS THE ANGLE BETWEEN FACES A AND B.
THE ANGLE BETWEEN FACES B AND C IS
 $1/2*(180°-LA)$

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STATE: _____
DATE: _____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW
0	11/21/2024		ISSUED FOR BID	BJH	JRC

ENGINEER OF RECORD		
STATUS	BY	DATE
DRAWN	BJH	11/01/24
ENGINEER	BJH	11/01/24
CHECKED	EW	11/01/24
APPROVED	JRC	11/03/24
SCALE: NTS		

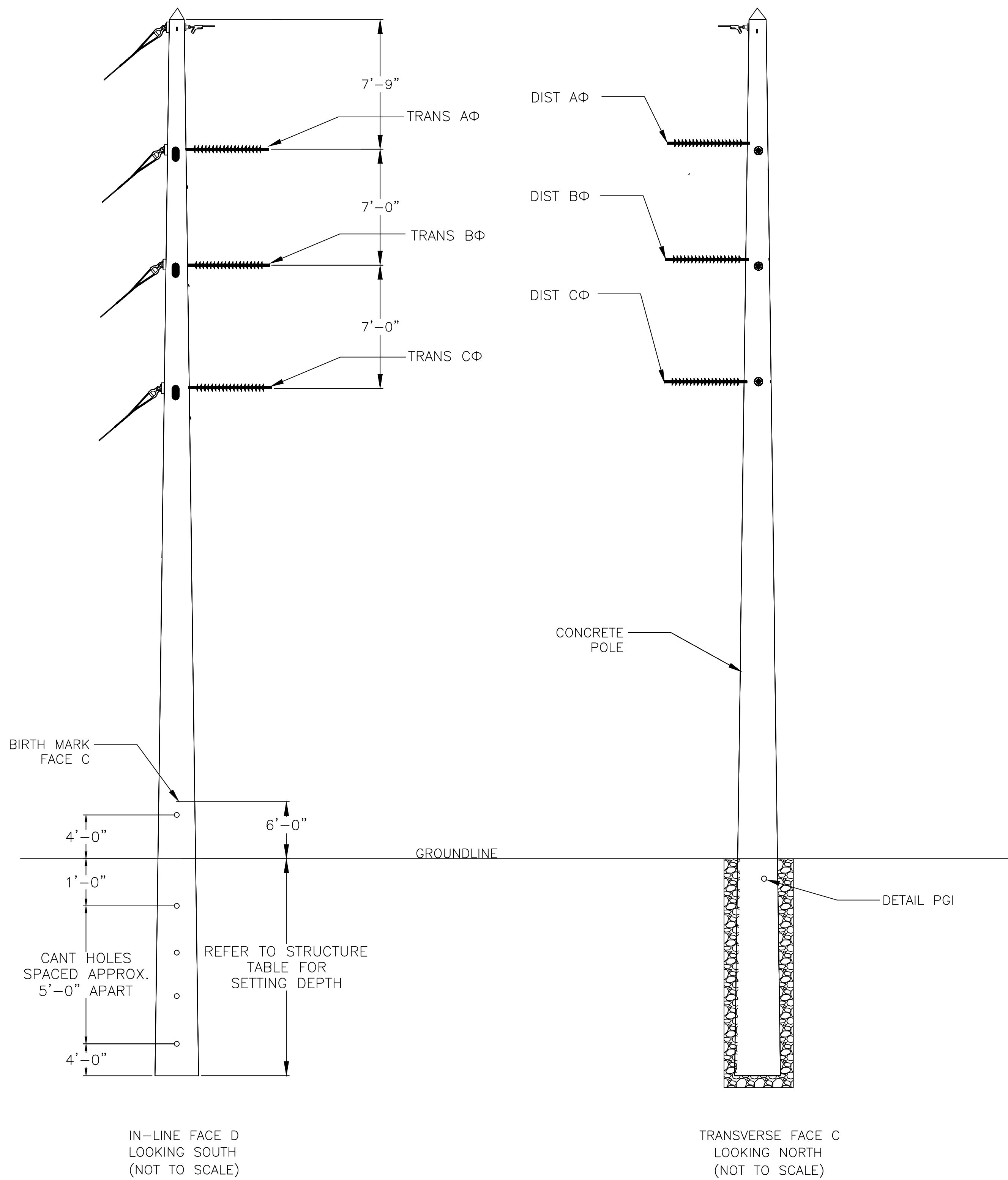


NICHOLS CREEK
26.4kV CIRCUIT 416
SPUN CONCRETE POLE BORINGS
A1241C_MOD*954S
DISTRIBUTION ENGINEERING

PROJECT NO: 8008460
DRAWING NO: CONC BORING
SHEET NO: 3 OF 4

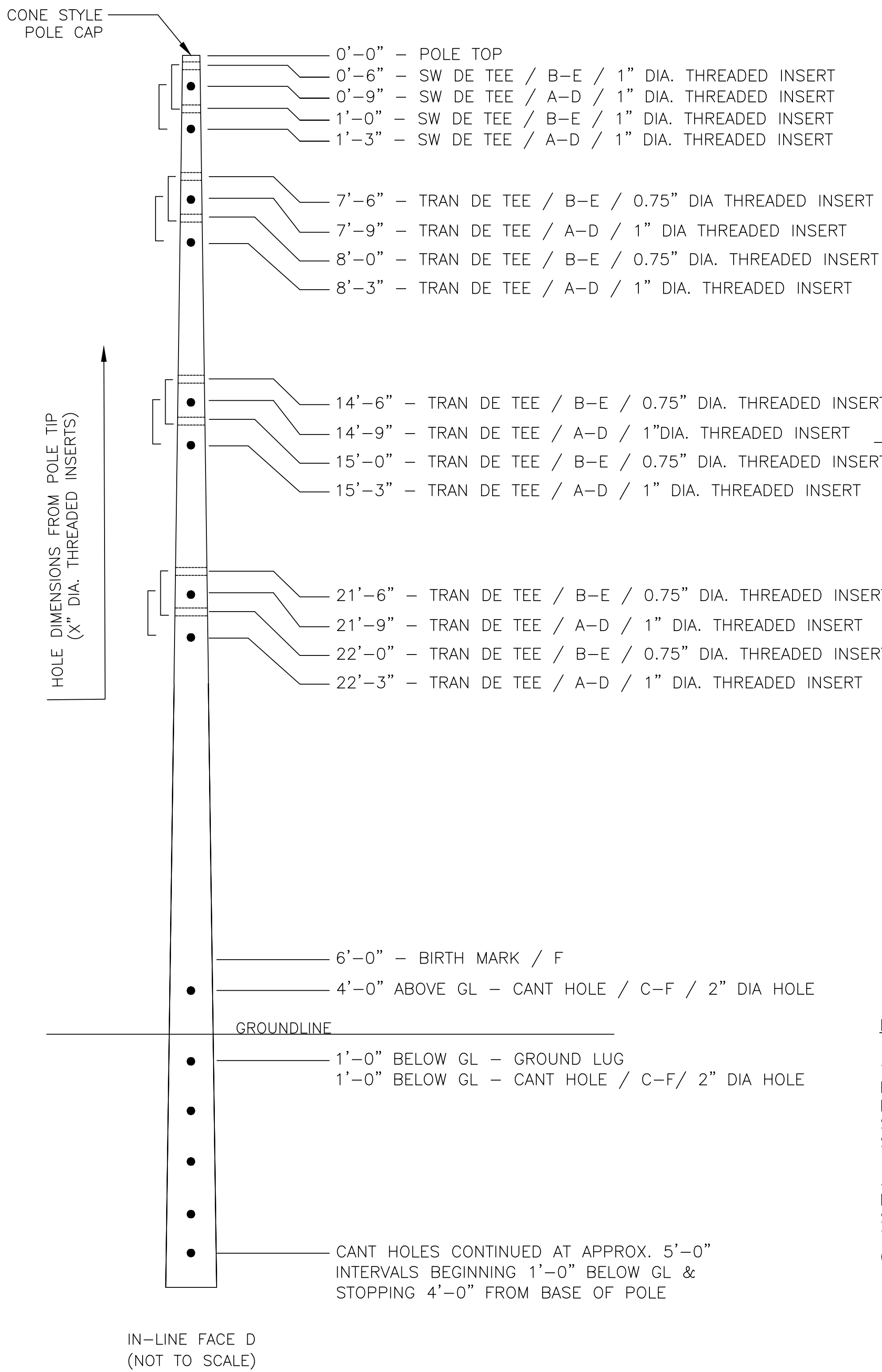
STRUCTURE TYPE
A1246C*954S, 69KV, DOUBLE DEAD-END 90°, FULL TENSION TO SLACK TENSION, 3-PHASE

ELEVATION VIEW

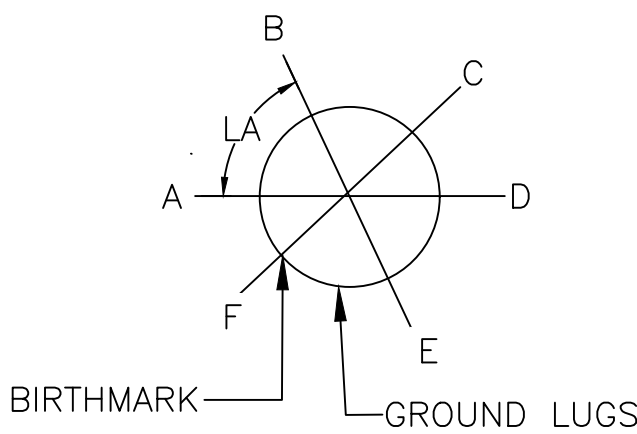


DRILLING DETAIL

(DIMENSIONS SHOWN FROM POLE TIP)



POLE TIP VIEW



GROUNDING LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-6"	-
TRANS AΦ	8'-6"	-
TRANS BΦ	15'-6"	-
TRANS CΦ	22'-6"	-
GROUND ROD	-	-1'-0"

STRUCTURE TABLE

STR NO.	POLE LENGTH (FT)	EMBED (FT)	CLASS	DIST UB	LA*
4766	95	39	28KIP	-	-85

LA IS THE ANGLE BETWEEN FACES A AND B.
THE ANGLE BETWEEN FACES B AND C IS
 $1/2*(180-LA)$

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STATE: _____

DATE: _____

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW
0	11/21/2024		ISSUED FOR BID	BJH	JRC

ENGINEER OF RECORD		
STATUS	BY	DATE
DRAWN	BJH	11/01/24
ENGINEER	BJH	11/01/24
CHECKED	EW	11/01/24
APPROVED	JRC	11/03/24
SCALE:		
NTS		



NICHOLS CREEK
26.4kV CIRCUIT 416
SPUN CONCRETE POLE BORINGS
A1246C*954S

DISTRIBUTION ENGINEERING

PROJECT NO:

8008460

DRAWING NO:

CONC BORING

SHEET NO:

4 OF 4

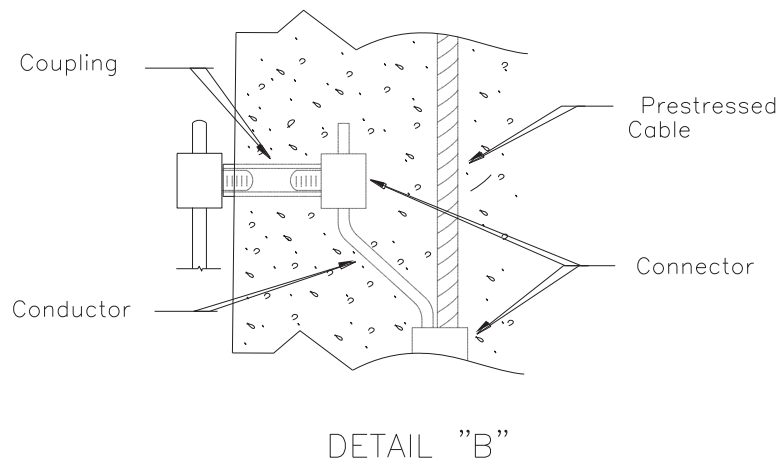
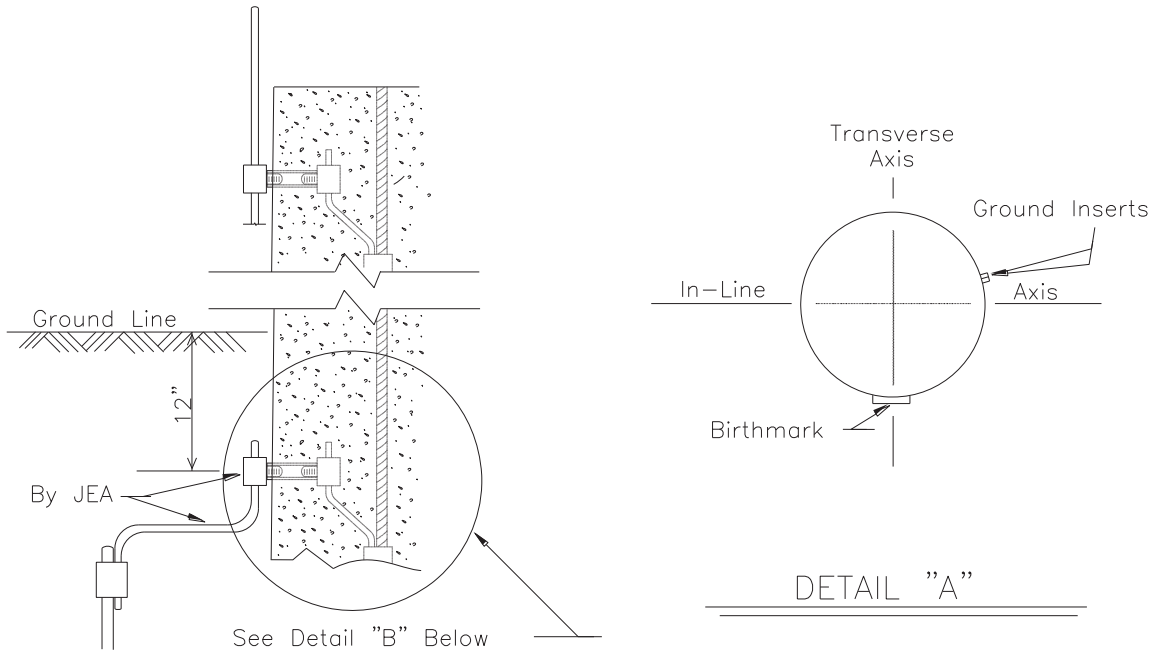
8. POLE ATTACHMENT DETAILS

- 1) Ground Inserts Detail PGI

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PGI

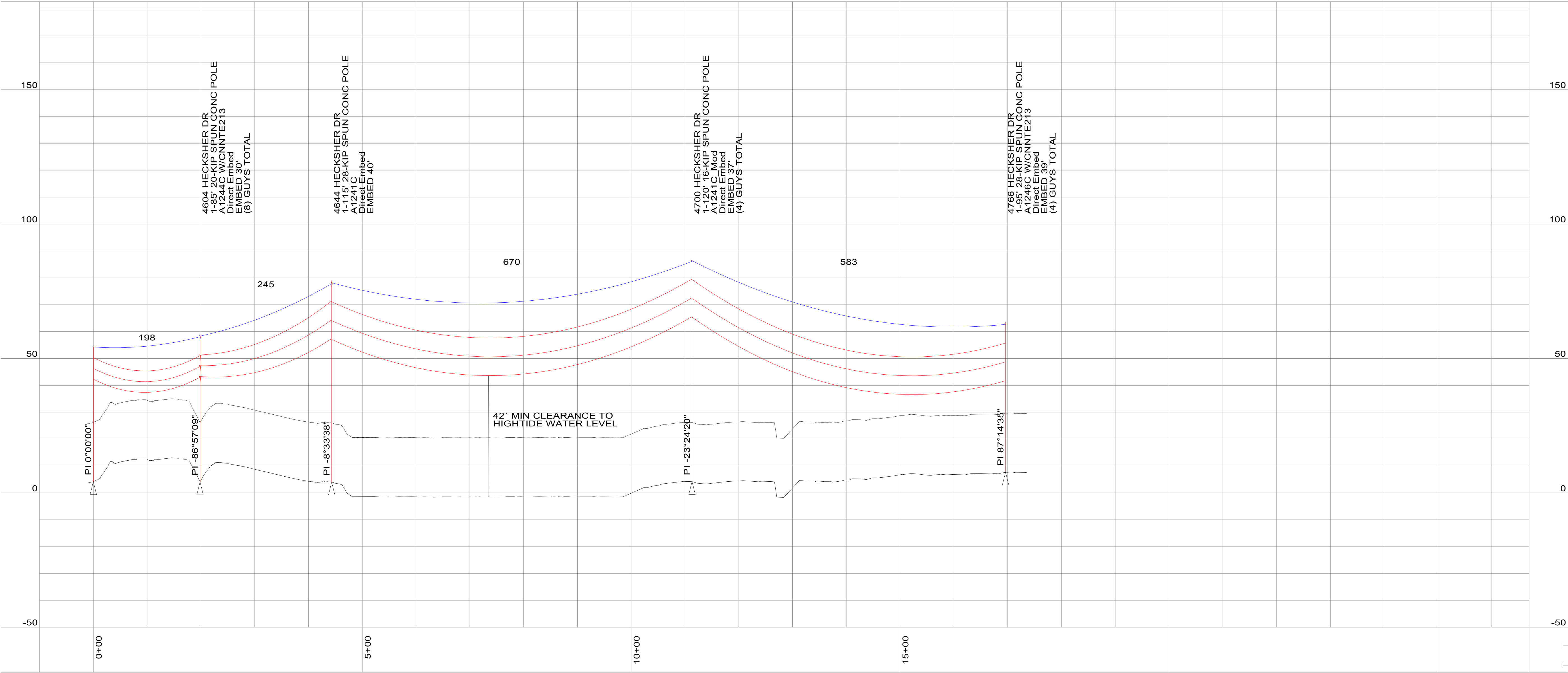
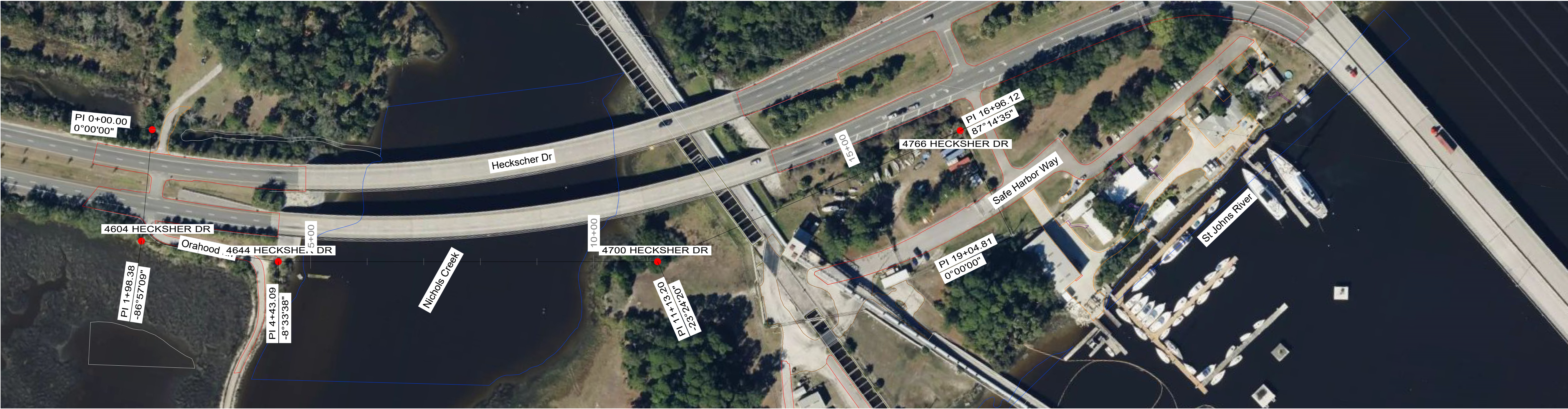
GROUND INSERT DETAILS



Note: Coupling and Internal Cable with Connectors To Be Furnished By Pole Manufacturer

9. POLE DELIVERY MAPS

- 1) The following maps show the transmission corridor and the locations along Heckscher Dr where each pole shall be delivered.



REV	DATE	REVISION DESCRIPTION	ENGR	DRFT	CKD
0	10/30/2024	ISSUED FOR CONSTRUCTION	BJH	BJH	JRC

REBUILD OF
CIRCUIT 416
NICHOLS CREEK 26.4KV
STR 10 TO 13



DWG NO. 8008460_PnP
SHEET NO. 1 OF 1