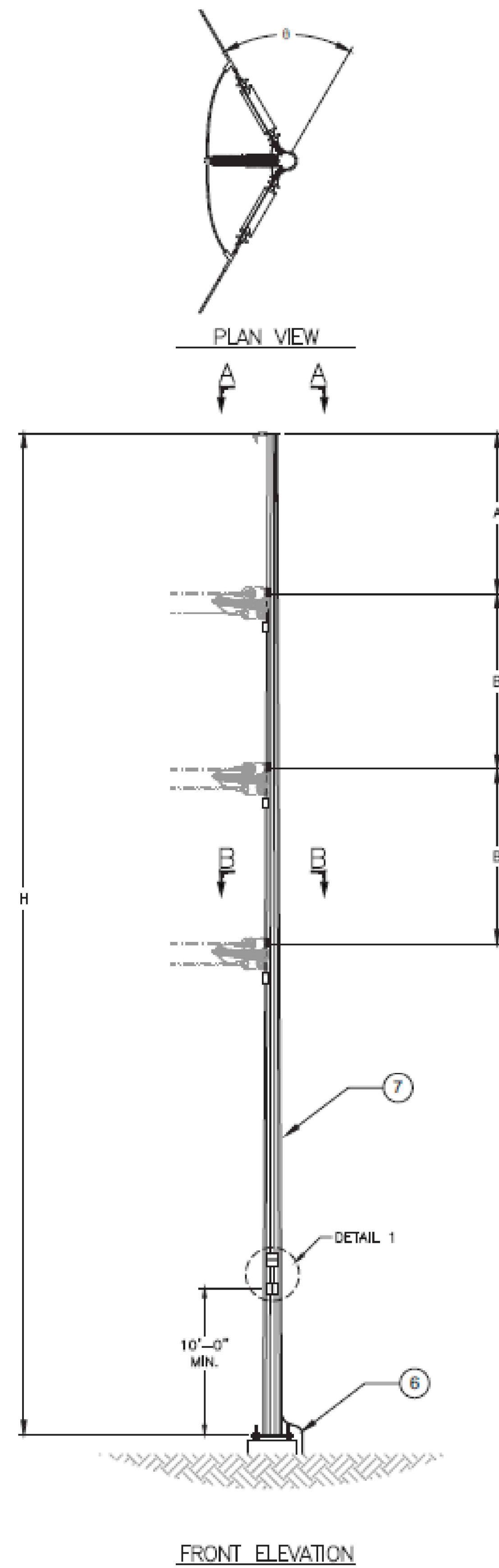
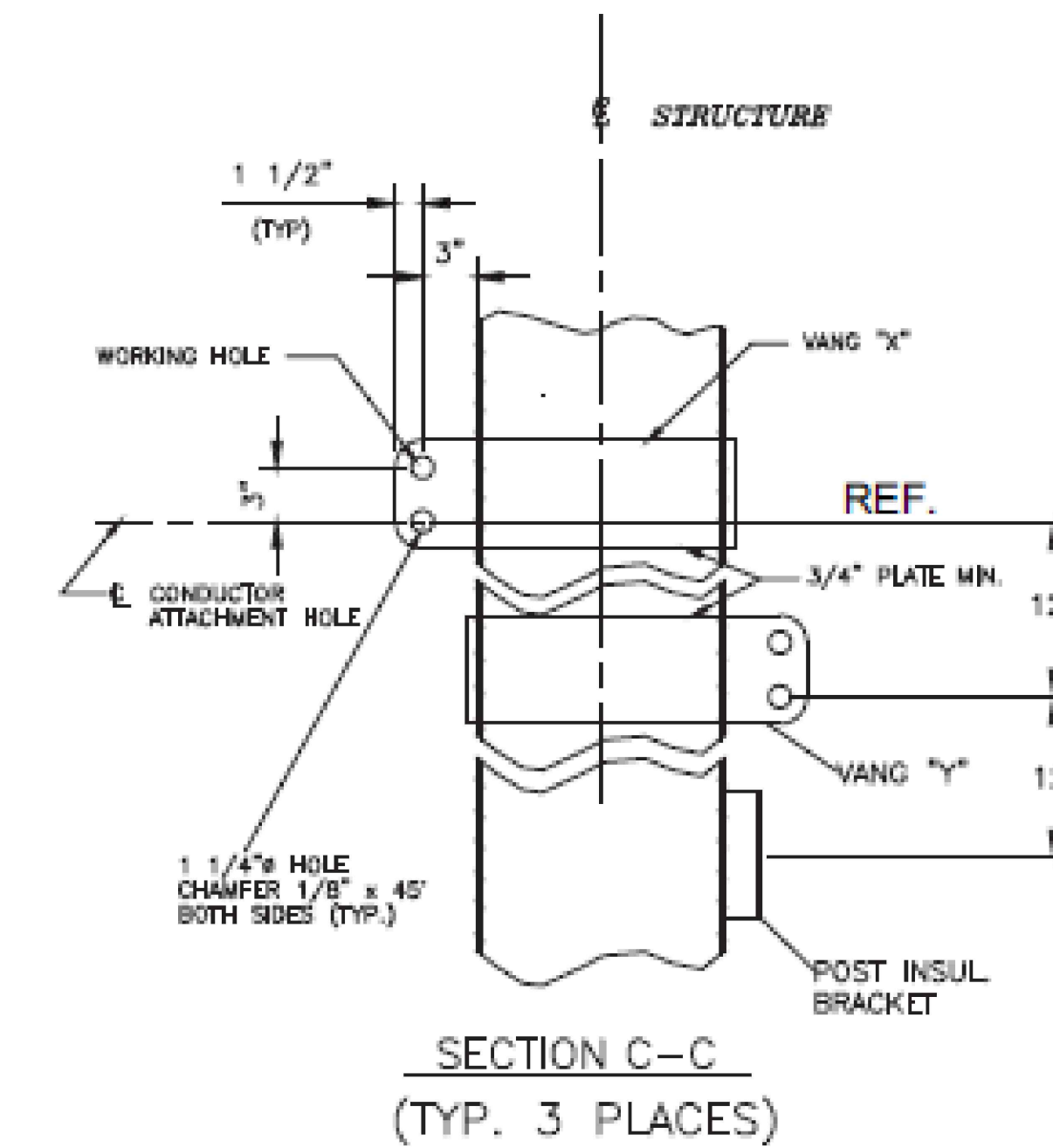
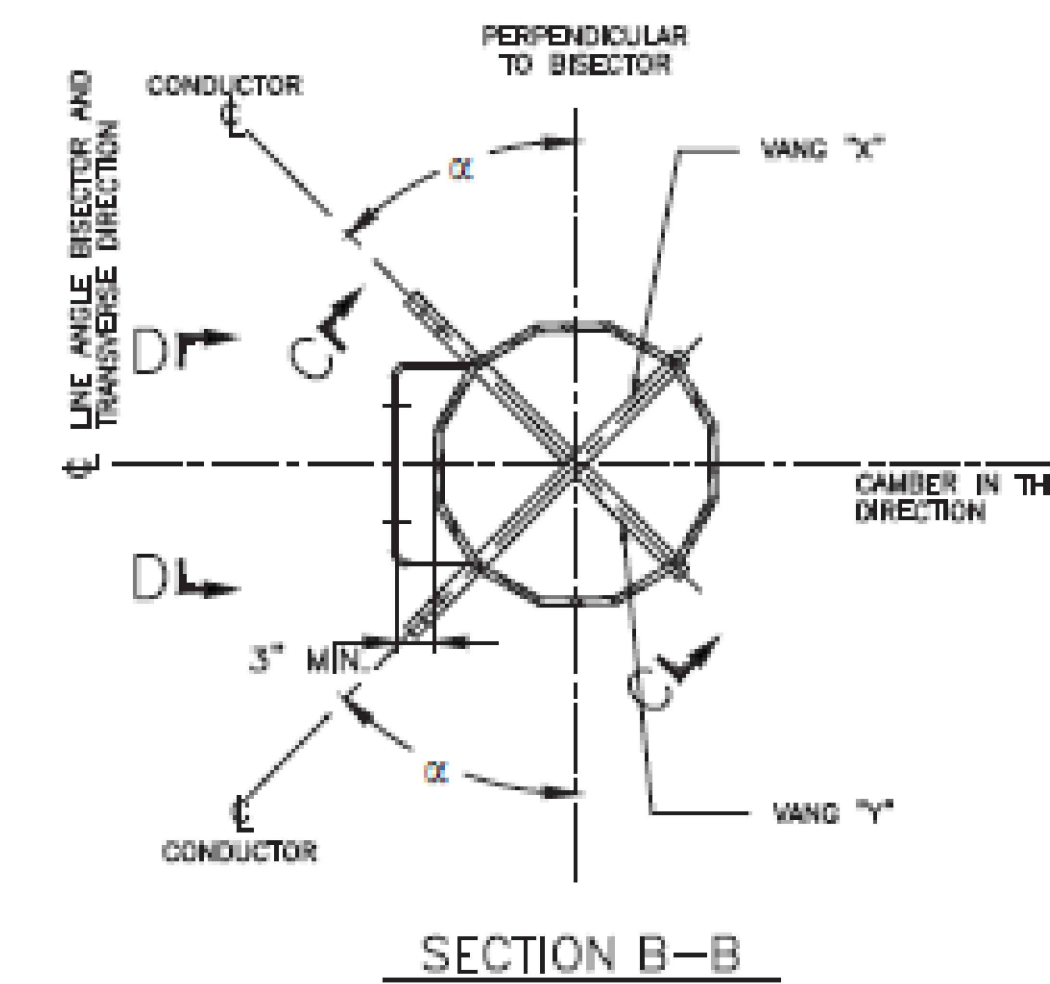
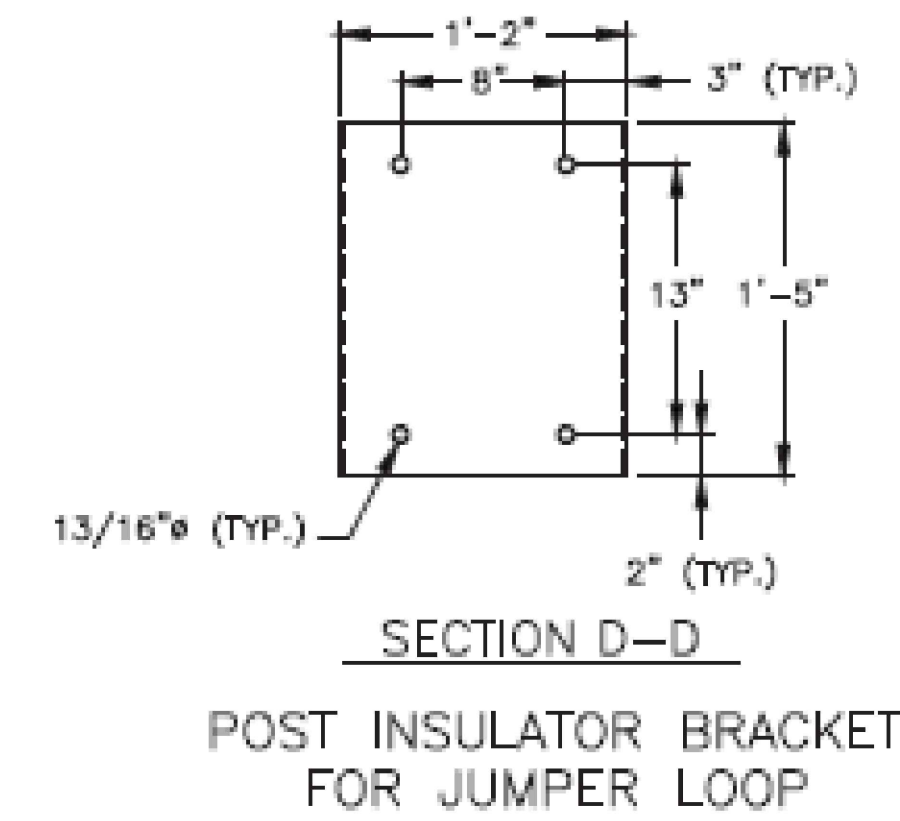
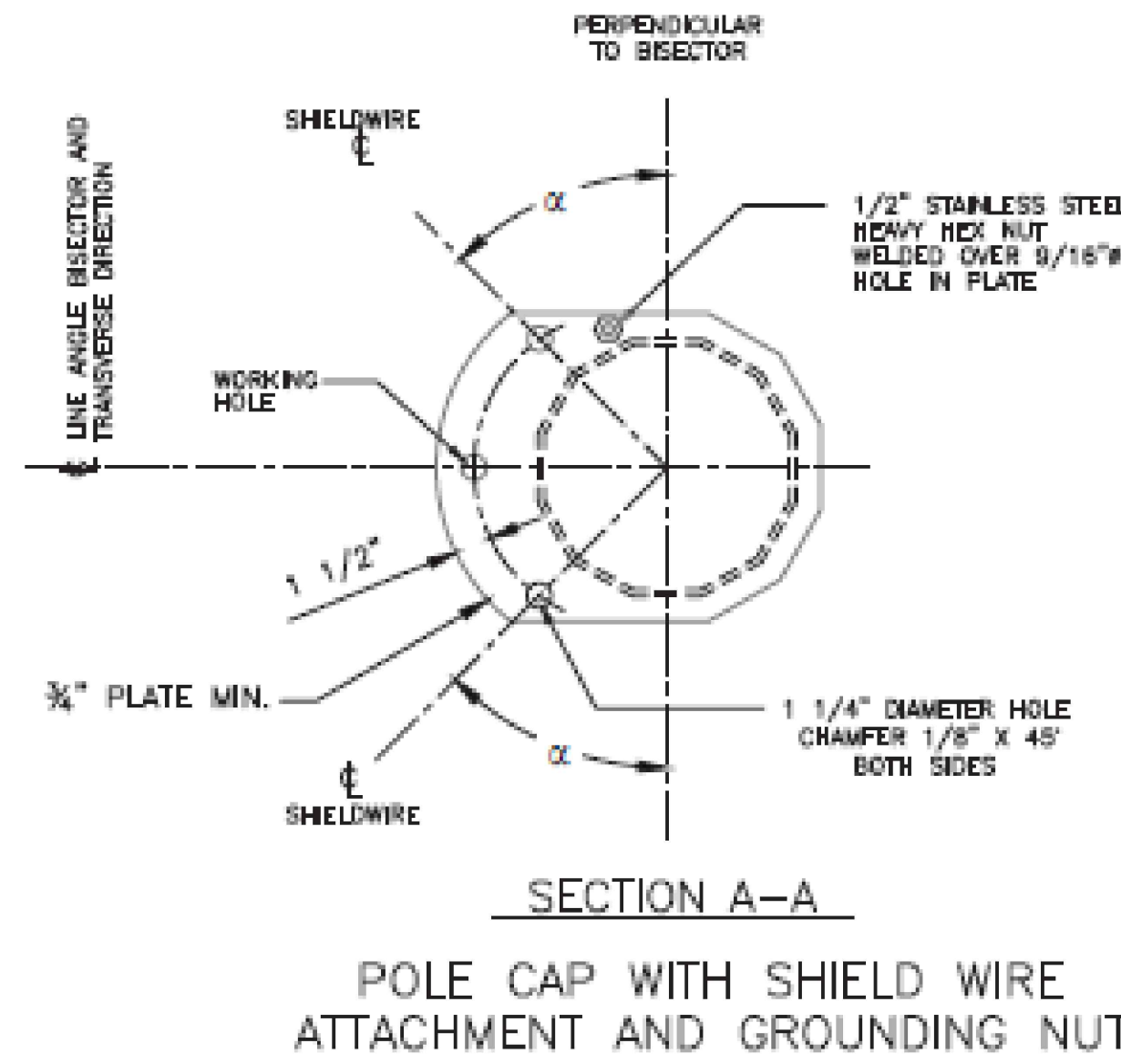
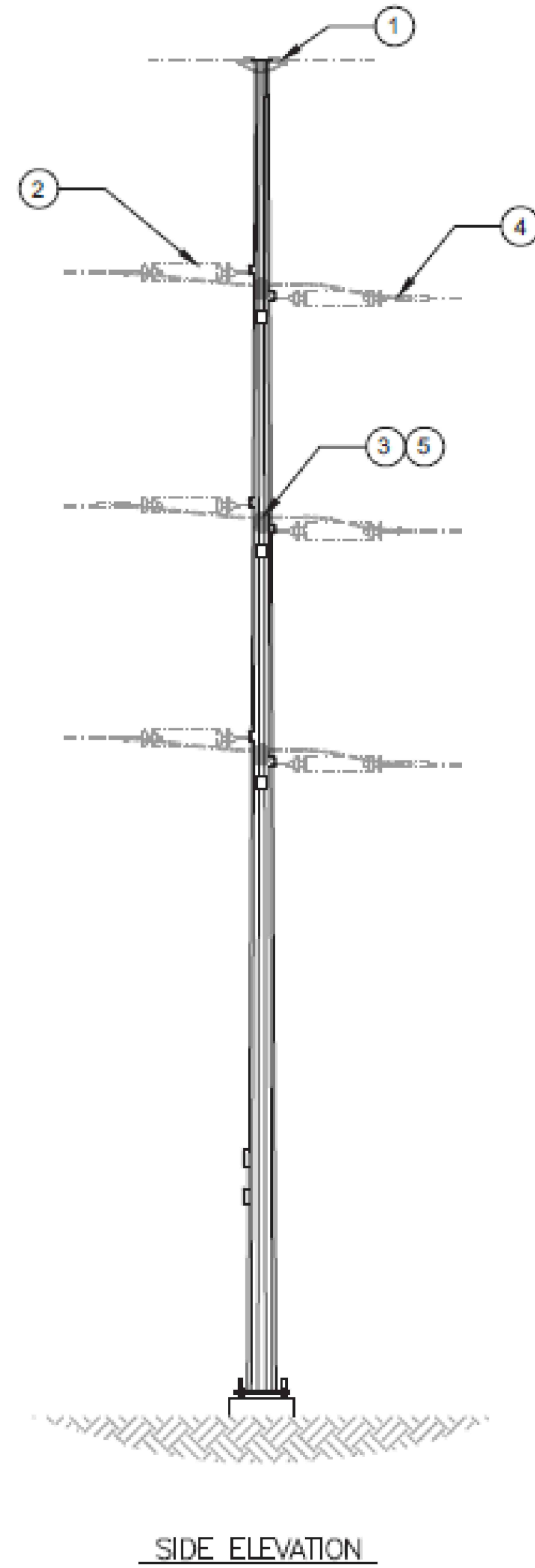


CONFIDENTIAL STATEMENT: THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF NATIONAL GRID. IT IS TO BE USED BY AUTHORIZED CONTRACTORS FOR NATIONAL GRID. SOLELY IN CONNECTION WITH THE PROJECT FOR WHICH IT HAS BEEN TRANSMITTED. ANY OTHER USE, ITS REPRODUCTION WITHOUT PRIOR EXPRESS WRITTEN AUTHORIZATION OF NATIONAL GRID IS STRICTLY PROHIBITED.



Tag	STANDARD ASSEMBLY ID	MU VARIABLE						Description
		Galvanized Steel			Weathering Steel			
		01	02	03	04	05	06	
1	SW.DE.OU.VA	1	1	1	1	1	1	Shieldwire (SW), Deadend (DE), Quadrant Clamp (QU), Vang Attached (VA)
2	INDE.SS.VA	3	3	3	3	3	3	Insulator (IN), Deadend (DE), Single String (SS), Vang Attached (VA)
3	INU.P.00.00	3	3	-	3	3	-	Insulator (IN), Horizontal Post (HP), .
4	CNDE.QU.00	6	6	6	6	6	6	Conductor (CN), Deadend (DE), Quadrant Clamp (QU)
5	CNCLTR.00	3	3	-	3	3	-	Conductor (CN), Clamp (CL), Transition (TR),
6	GNCP.ST.00	1	1	1	1	1	1	Grounding (GN), Capital (CP), Steel Structures (ST)
7	PO.ST.00.00	1	1	1	1	1	1	Pole (PO), Steel (ST), .

DIMENSION TABLE						
	A	B	θ	α	DISCS	VOLTAGE
1	11'-0"	12'-0"	>45°-60°	27.5°	10	115kV
2	11'-0"	12'-0"	>60°-75°	35°	10	115kV
3	11'-0"	12'-0"	>75°-90°	42.5°	10	115kV
4	11'-0"	12'-0"	>45°-60°	27.5°	10	115kV
5	11'-0"	12'-0"	>60°-75°	35°	10	115kV
6	11'-0"	12'-0"	>75°-90°	42.5°	10	115kV



INCHES ON ORIGINAL

1. DATE: 06/20/2019 2. DESIGNER: KGM 3. DRAWN: AMW 4. CHECKED: KGM 5. APPROVED: CS 6. PROJECT NO: 327851 7. SHEET NO: 1 OF 2	8. TITLE: TYPICAL NATIONAL GRID TRANSMISSION TYPE (V1.ST.D1) STR. 9. PROJECT: HIGH RIVER ENERGY CENTER 10. CLIENT: HIGH RIVER ENERGY CENTER, LLC 11. LOCATION: MONTGOMERY CO., NY 12. SCALE: AS NOTED

NOTE: STRUCTURE TYPE V1.ST.D1 CAN BE MODIFIED TO CREATE A 3-WAY TAP POLE.

UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING) SECTION 2209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**PRELIMINARY**  
NOT FOR CONSTRUCTION

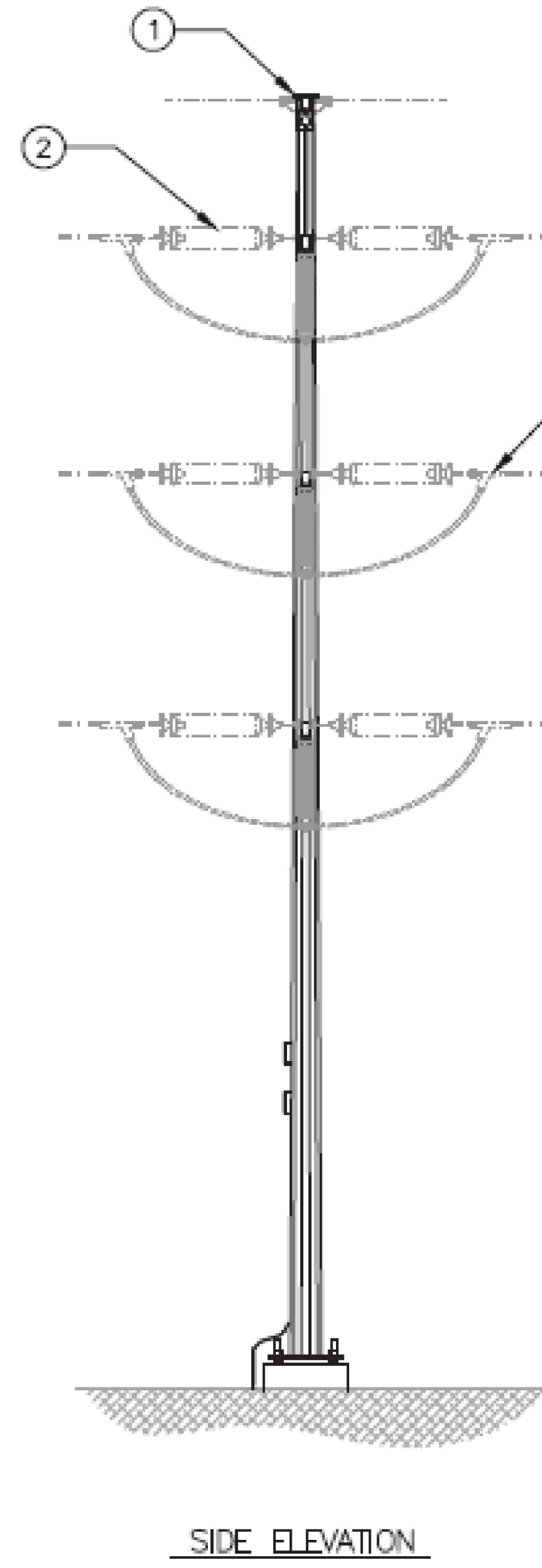
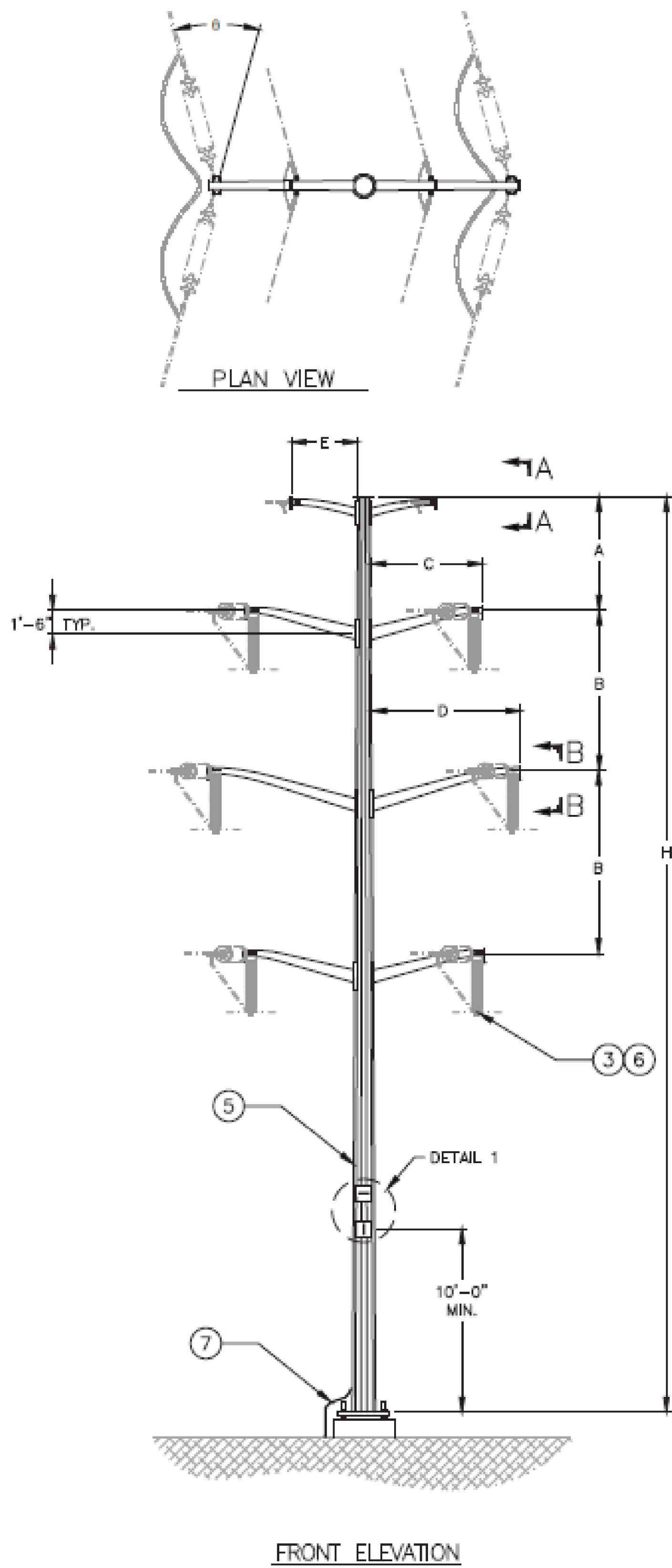


REV	DESCRIPTION	DATE	DES	CHK	APP
A	ISSUE FOR REVIEW	04/17/2019	PRG	KGM	CS
B	RE-ISSUED FOR REVIEW	06/20/2019	KGM	PRG	CS

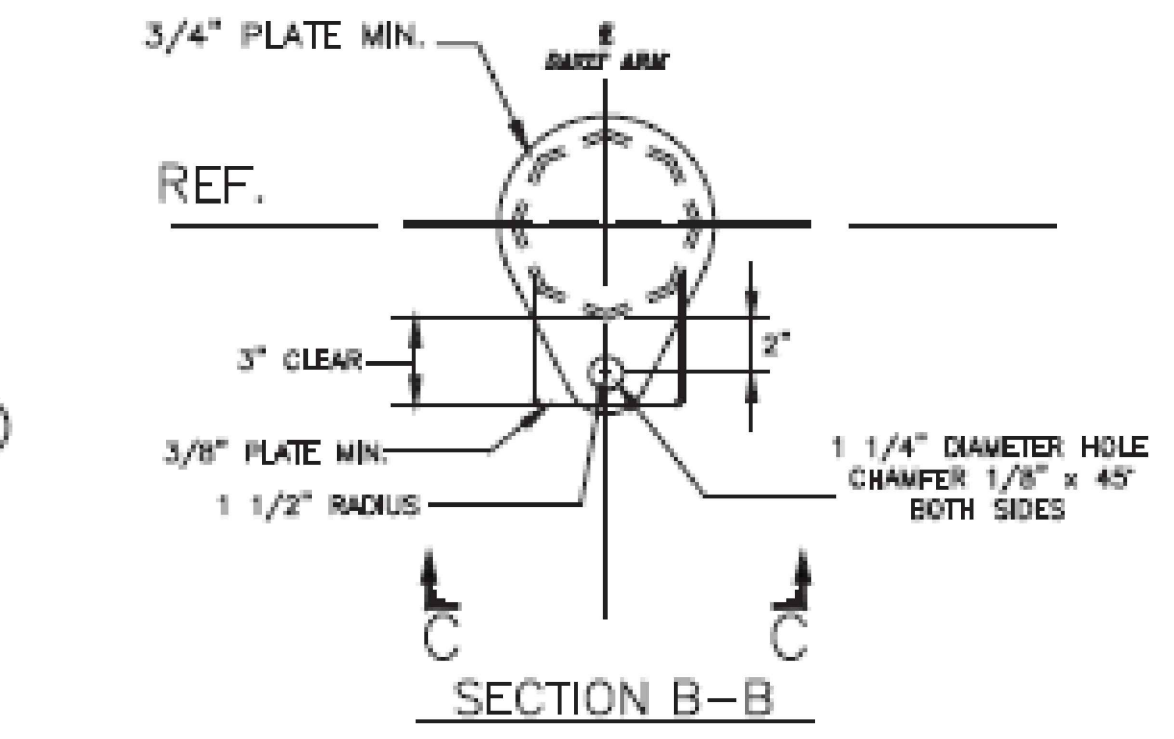
124 Grove Street Franklin MA, 02038	PROJECT NO: 327851
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PRG DESIGNED AMW DRAWN KGM CHECKED CS APPROVED	PRELIMINARY TYPICAL NATIONAL GRID TRANSMISSION TYPE (V1.ST.D1) STR. HIGH RIVER ENERGY CENTER HIGH RIVER ENERGY CENTER, LLC FLORIDA MONTGOMERY CO., NY	04/17/2019 DATE AS NOTED SCALE		T-001	REV. A
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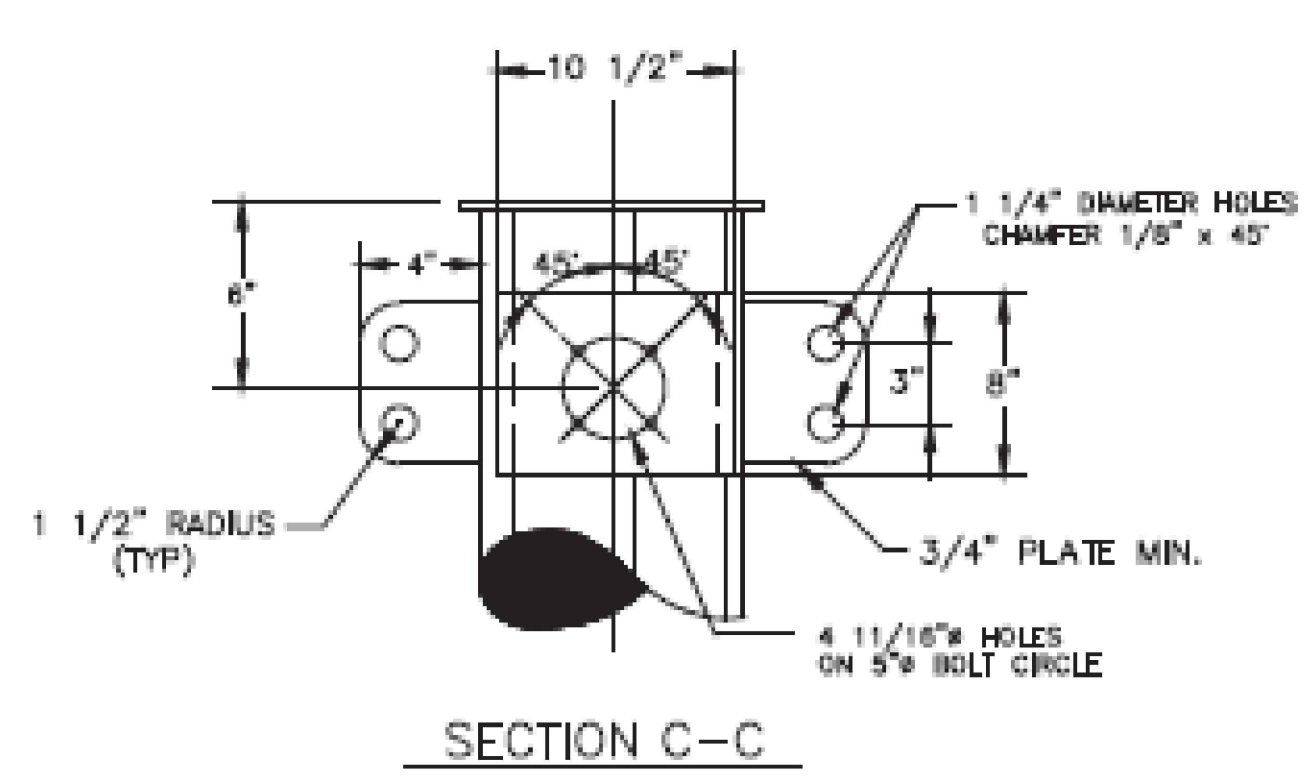
CONFIDENTIALITY STATEMENT: THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF NATIONAL GRID. IT IS TO BE USED BY AUTHORIZED CONTRACTORS FOR NATIONAL GRID SOLELY IN CONNECTION WITH THE 145 (ENGINEERING) SECTION 7203 (2). IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.



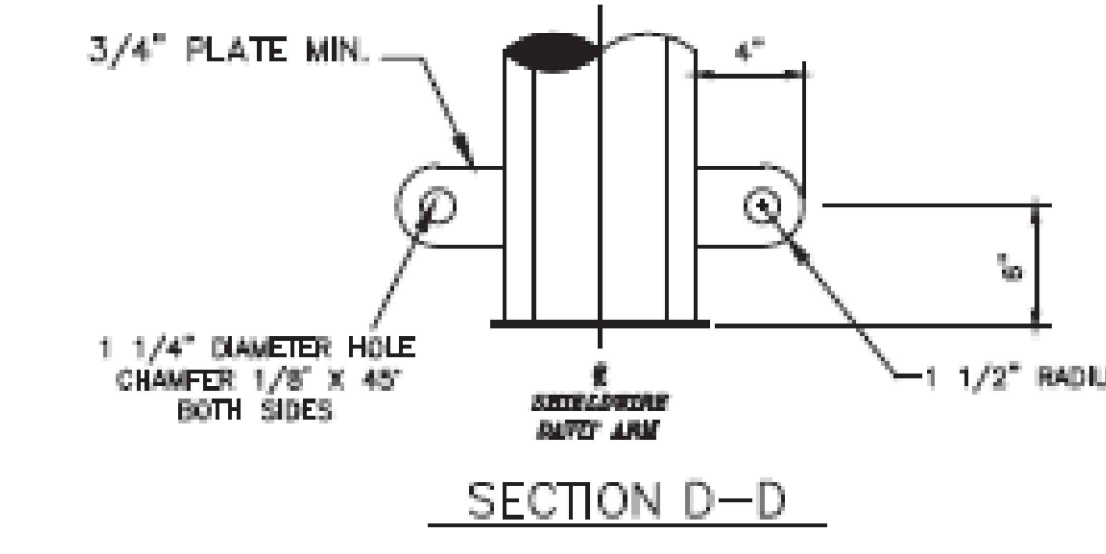
Tag	STANDARD ASSEMBLY ID	MU VARIABLE														Description
		Galvanized Steel							Weathering Steel							
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	
1	SW.DE.CP.VA	-	-	-	-	2	2	2	-	-	-	-	2	2	2	Shieldwire (SW), Deadend (DE), Compression (CP), Vang Attached (VA)
	SW.DE.QU.VA	2	2	2	2	-	-	-	2	2	2	2	-	-	-	Shieldwire (SW), Deadend (DE), Quadrant Clamp (QU), Vang Attached (VA)
2	N.DE.SS.VA	6	6	6	6	6	6	-	6	6	6	6	6	6	-	Insulator (NI), Deadend (DE), Single String (SS), Vang Attached (VA)
	N.DE.EV.VA	-	-	-	-	-	-	6	-	-	-	-	-	-	6	Insulator (NI), Deadend (DE), Double String - EHV (E.V.), Vang Attached (VA)
3	IN.PS.LV.00	-	-	-	6	-	-	-	-	-	-	6	-	-	-	Insulator (NI), Station Post (PS), Low Voltage (LV)
	IN.PS.EV.00	-	-	-	-	6	6	-	-	-	-	-	6	6	-	Insulator (NI), Station Post (PS), EHV Insulated (E.V.)
4	CN.DE.CP.AC	-	-	-	-	12	12	24	-	-	-	-	12	12	24	Conductor (CN), Deadend (DE), Compression (CP), Adjustable C Levels (AC)
	CN.DE.QU.00	12	12	12	12	-	-	-	12	12	12	12	-	-	-	Conductor (CN), Deadend (DE), Quadrant Clamp (QU)
5	PO.ST.00.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Pole (PO), Steel (ST)
6	CN.CL.PS.00	-	-	-	6	-	6	6	-	-	-	6	-	6	6	Conductor (CN), Clamp (CL), Station Post (PS)
7	GN/CP.ST.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Grounding (GN), Capital (CP), Steel Structures (ST)



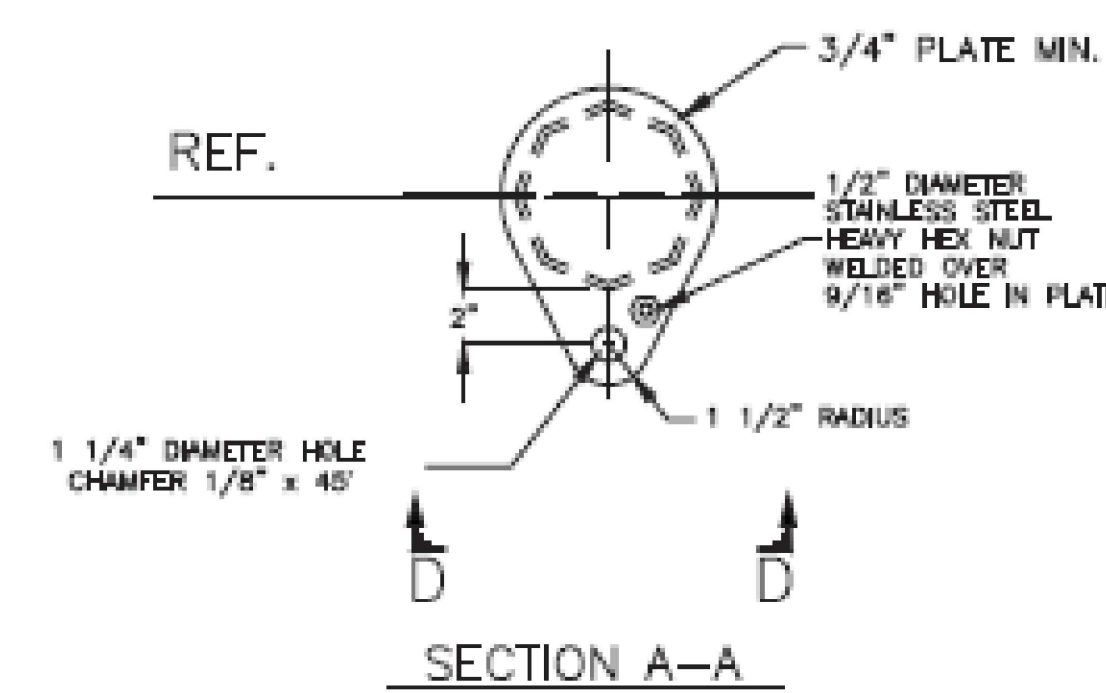
CONDUCTOR ATTACHMENT PLATES TYPICAL 6 LOCATIONS



SECTION C-C



SECTION D-D



SECTION A-A

SHIELD WIRE ATTACHMENT PLATES WITH GROUNDING NUTS TYPICAL 2 LOCATIONS

	A	B	C	D	E	theta	DISCS	VOLTAGE
1 & 8	12'-0"	12'-0"	7'-6"	10'-6"	5'-6"	0'-20'	10	115 kV
2 & 9	12'-0"	12'-0"	8'-0"	11'-0"	6'-0"	>20'-40'	10	115 kV
3 & 10	12'-0"	12'-0"	8'-6"	11'-6"	6'-6"	>40'-60'	10	115 kV
4 & 11	12'-0"	12'-0"	9'-0"	12'-0"	7'-0"	>60'-80'	10	115 kV
5 & 12	20'-0"	25'-0"	13'-0"/COS(theta/2)	13'-0"/COS(theta/2)	9'-6"/COS(theta/2)	0'-90'	17	230 kV
6 & 13	20'-0"	25'-0"	13'-0"/COS(theta/2)	13'-0"/COS(theta/2)	9'-6"/COS(theta/2)	0'-90'	19	345 kV
7 & 14	20'-0"	25'-0"	13'-0"/COS(theta/2)	13'-0"/COS(theta/2)	9'-6"/COS(theta/2)	0'-90'	19	345 kV

INCHES ON ORIGINAL

UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING) SECTION 7203 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

PRELIMINARY NOT FOR CONSTRUCTION



REV	DESCRIPTION	DATE	DES	CHK	APP
A	ISSUE FOR REVIEW	04/17/2019	PRG	KGM	CS
B	RE-ISSUED FOR REVIEW	06/20/2019	KGM	PRG	CS



124 Grove Street Franklin MA, 02038

PROJECT NO: 327851

PRG DESIGNED  
AMW DRAWN  
KGM CHECKED  
CS APPROVED

PRELIMINARY  
TYPICAL NATIONAL GRID TRANSMISSION TYPE (D2.ST.DE) STR.  
HIGH RIVER ENERGY CENTER  
HIGH RIVER ENERGY CENTER, LLC  
FLORIDA  
MONTGOMERY CO., NY

REVIEW 1 04/17/2019 DATE AS NOTED SCALE  
REVIEW 2



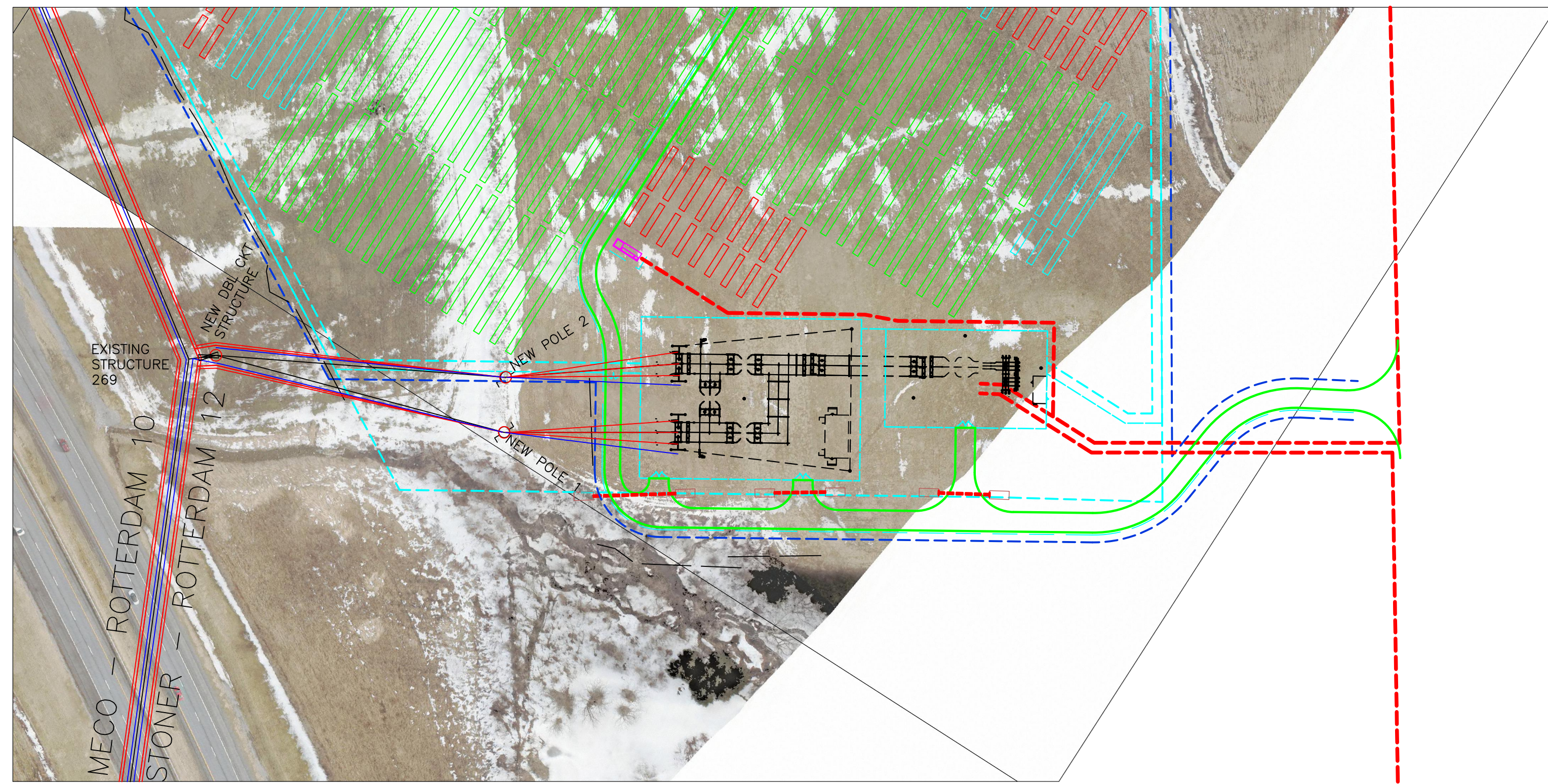
T-002

REV. A



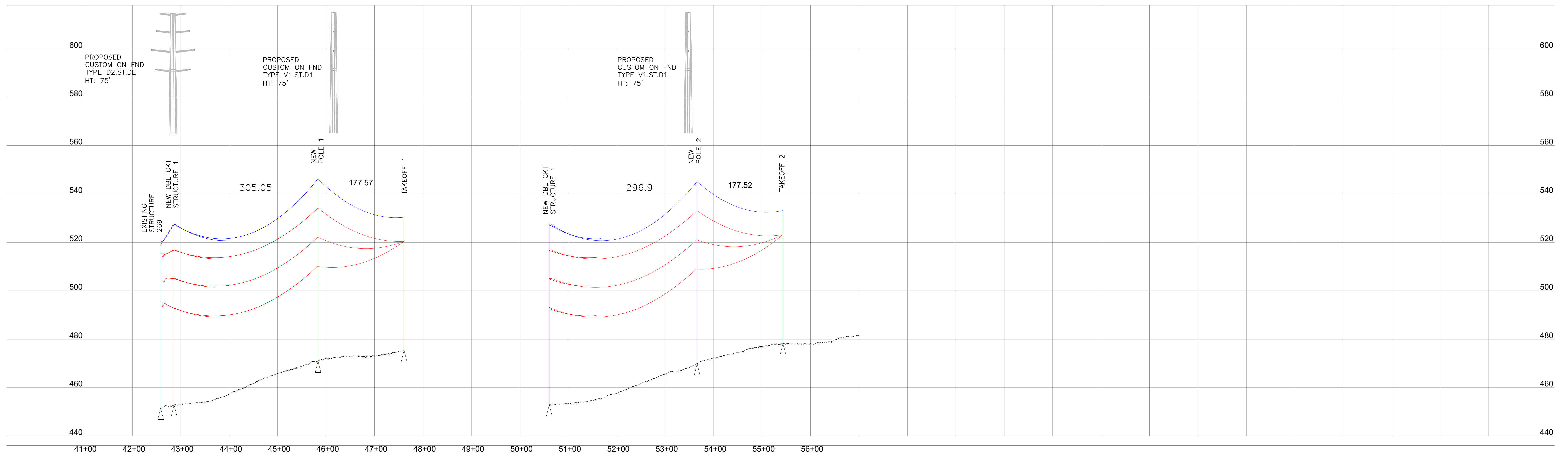
ORIGINAL	ISSUED	DATE
DESIGNED		
CHECKED		
APPROVED		

MACRO UNIT  
DOUBLE CIRCUIT DOUBLE SHIELDWIRE (D2)  
STEEL (ST)  
DEADEND (DE)

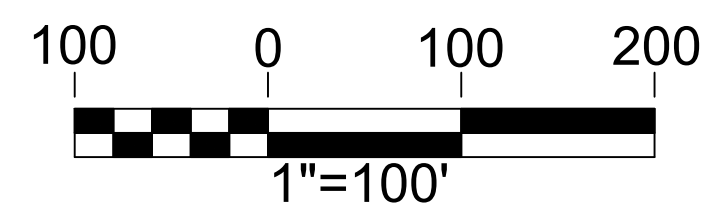


**CONDUCTORS**  
 -EXISTING STRUCTURE 269 TO NEW DOUBLE CIRCUIT STRUCTURE #1:  
 795 ACSR 26/7 "DRAKE" @ 500# MAX TENSION  
 -NEW DOUBLE CIRCUIT STRUCTURE #1 TO NEW STATION TAKEOFF STRUCTURES:  
 795 ACSR 26/7 "DRAKE" @ 3000# MAX TENSION

**SHIELDWIRE**  
 -EXISTING STRUCTURE 269 TO NEW DOUBLE CIRCUIT STRUCTURE #1:  
 3/8" 7-STRAND EHS @ 250# MAX TENSION  
 -NEW DOUBLE CIRCUIT STRUCTURE #1 TO NEW STATION TAKEOFF STRUCTURES:  
 3/8" 7-STRAND EHS @ 1000# MAX TENSION



UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.



**PRELIMINARY**  
 NOT FOR CONSTRUCTION



**TRC** 124 Grove Street  
 Franklin MA, 02038

PROJECT NO: 327851

REV	DESCRIPTION	DATE	DES	CHK	APP
A	ISSUE FOR REVIEW	04/17/19	PRG	KGM	CS
B	RE-ISSUE FOR REVIEW	08/20/19	KGM	PRG	CS
C	RE-ISSUE FOR REVIEW	08/22/19	KGM	PRG	CS

PRG  
DESIGNED  
 AMW  
DRAWN  
 KGM  
CHECKED  
 CS  
APPROVED

PRELIMINARY  
 PLAN & PROFILE DRAWING  
 HIGH RIVER ENERGY CENTER  
 HIGH RIVER ENERGY CENTER, LLC  
 MONTGOMERY CO., NY  
 FLORIDA

REVIEW 1  
 REVIEW 2

04/17/19  
 DATE  
 AS NOTED  
 SCALE



T-003  
 REV. C