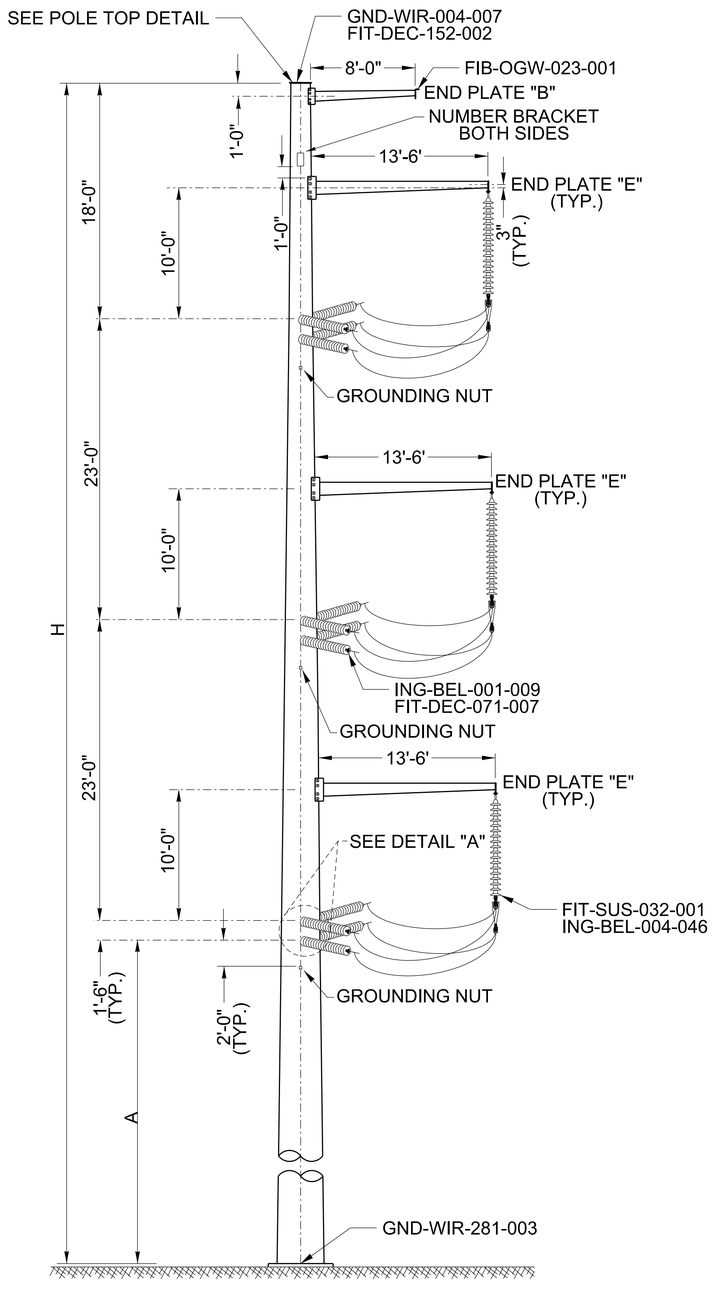
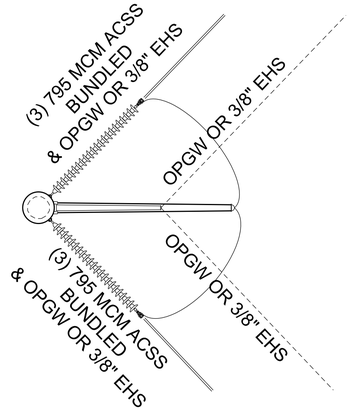
SD-T40-708.DGN



ELEVATION VIEW

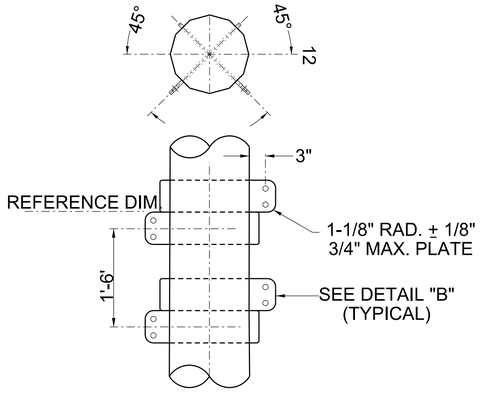


PLAN VIEW

DIM.	
H	A
100'	34'0"
105'	39'6"
110'	44'6"
115'	49'6"
120'	54'6"
125'	59'6"
130'	64'6"
135'	69'6"
140'	74'6"
145'	79'6"
150'	84'6"
155'	89'6"
160'	94'6"
165'	99'6"
170'	104'6"
175'	109'6"
180'	114'6"

GENERAL NOTES

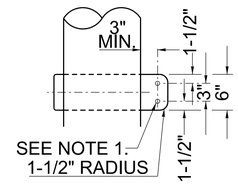
1. 1" DIAMETER HOLE WITH 1/8" CHAMFER BOTH SIDES, TYPICAL.
2. (2) 1/2" ALL THREAD STUDS, 1-1/2" APART, 1" MINIMUM PROTRUSION. INSTALL 3" X 1-1/4" COVER PLATE WITH NUTS. FOR PAINTED POLES PRIME, BUT DO NOT PAINT AREA UNDER COVER PLATE. COVER PLATE SHALL BE INSTALLED WHEN WEATHERING STEEL IS SPECIFIED.
3. INSTALL STEP LUGS FROM 85' ABOVE BASE PLATE TO TOP OF POLE.
4. POLE NUMBER SHALL BE INSTALLED ON EACH POLE AS REQUIRED.
5. SEE SHEET T-0-400 FOR GENERAL DETAILS.
6. SEE SHEET T-0-400A FOR END PLATE DETAILS.
7. SEE SHEET T-0-400C FOR ANCHOR BOLT CAGE DETAILS.
8. STRAIN INSULATORS ARE TO BE 345KV TOUGHENED GLASS INSULATORS. SUSPENSION INSULATORS ARE TO BE 345KV TOUGHENED GLASS INSULATORS.
9. STRUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.



DETAIL "A"

CONDUCTOR ATTACHMENT &
INSULATOR ATTACHMENT BRACKET

POLE TOP DETAIL



DETAIL "B"

75° - 100° DEADEND 345kV
STRUCTURE DRAWING
STEEL SINGLE POLE - FOUNDATION

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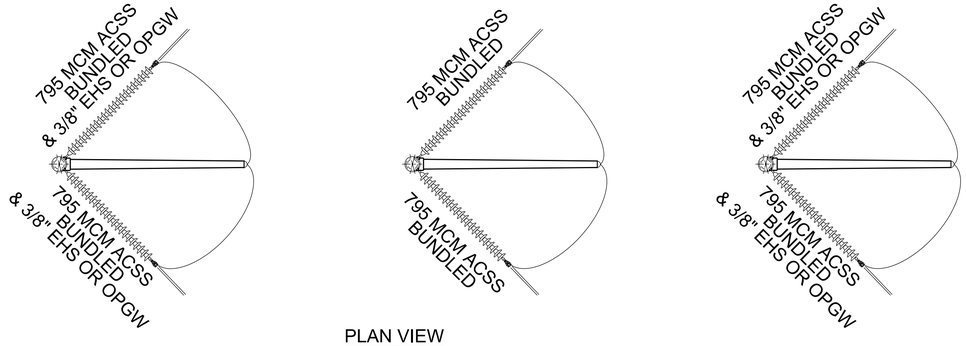
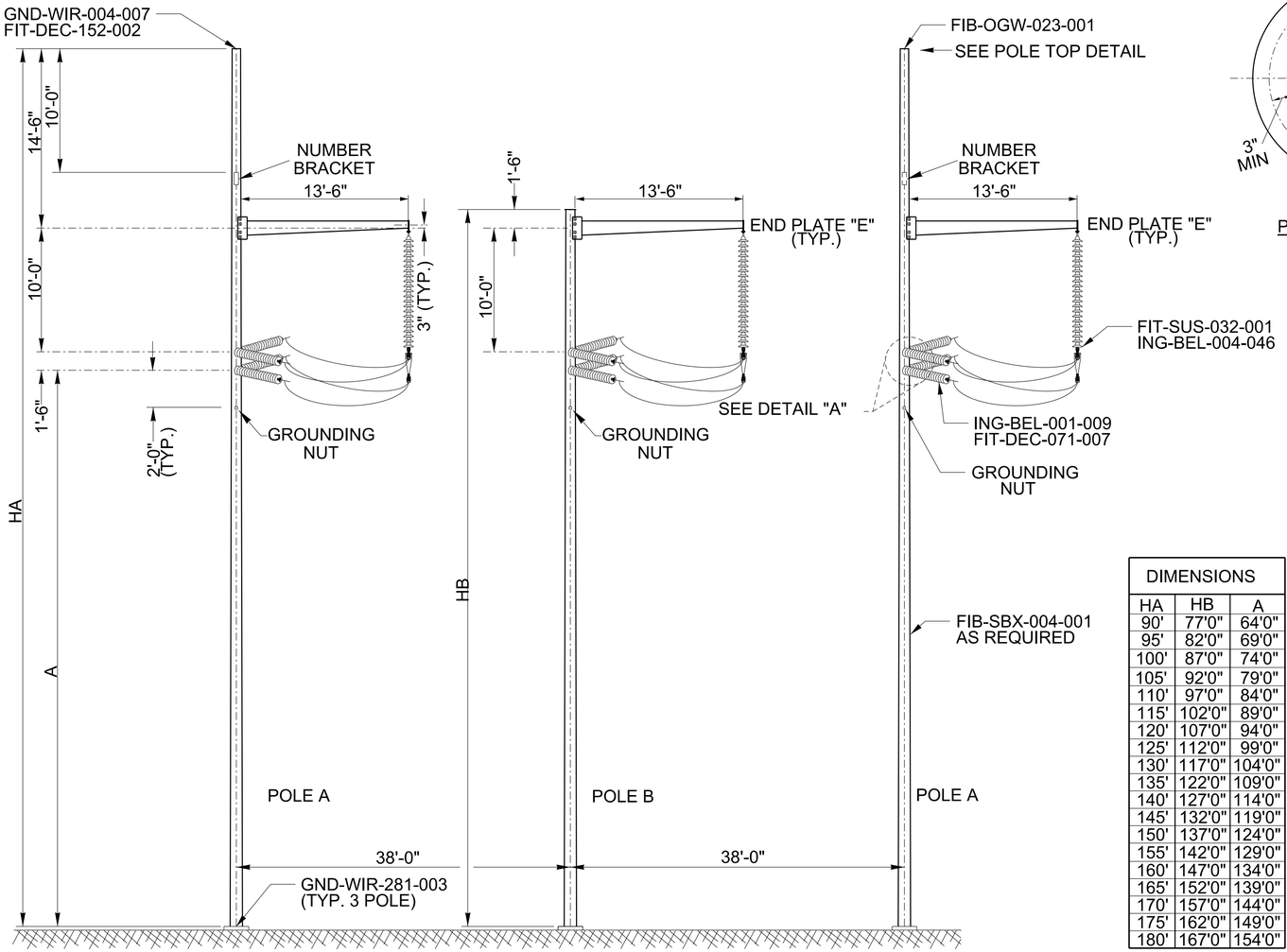
SD-T40-709.DGN

GENERAL NOTES

1. 1" DIAMETER HOLE WITH 1/8" CHAMFER BOTH SIDES, TYPICAL.
2. (2) 1/2" ALL THREAD STUDS, 1-1/2" APART, 1" MINIMUM PROTRUSION. INSTALL 3" X 1-1/4" COVER PLATE WITH NUTS. FOR PAINTED POLES PRIME, BUT DO NOT PAINT AREA UNDER COVER PLATE. COVER PLATE SHALL BE INSTALLED WHEN WEATHERING STEEL IS SPECIFIED.
3. INSTALL STEP LUGS FROM 85' ABOVE BASE PLATE TO TOP OF POLE.
4. POLE NUMBER SHALL BE INSTALLED ON EACH POLE AS REQUIRED.
5. SEE SHEET T-0-400 FOR GENERAL DETAILS.
6. SEE SHEET T-0-400A FOR END PLATE DETAILS.
7. SEE SHEET T-0-400C FOR ANCHOR BOLT CAGE DETAILS.
8. SEE SHEET T-0-400D FOR FIBER OPTIC SPLICE DETAILS.
9. STRAIN INSULATORS ARE TO BE 345KV TOUGHENED GLASS INSULATORS. SUSPENSION INSULATORS ARE TO BE 345KV TOUGHENED GLASS INSULATORS.
10. STRUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.

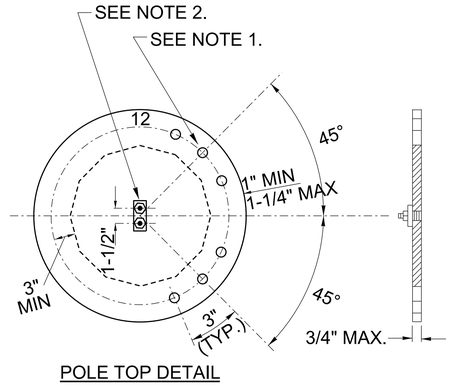


PLAN VIEW

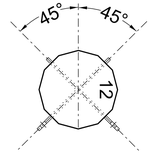


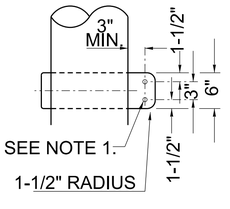
ELEVATION VIEW

DIMENSIONS		
HA	HB	A
90'	77'0"	64'0"
95'	82'0"	69'0"
100'	87'0"	74'0"
105'	92'0"	79'0"
110'	97'0"	84'0"
115'	102'0"	89'0"
120'	107'0"	94'0"
125'	112'0"	99'0"
130'	117'0"	104'0"
135'	122'0"	109'0"
140'	127'0"	114'0"
145'	132'0"	119'0"
150'	137'0"	124'0"
155'	142'0"	129'0"
160'	147'0"	134'0"
165'	152'0"	139'0"
170'	157'0"	144'0"
175'	162'0"	149'0"
180'	167'0"	154'0"

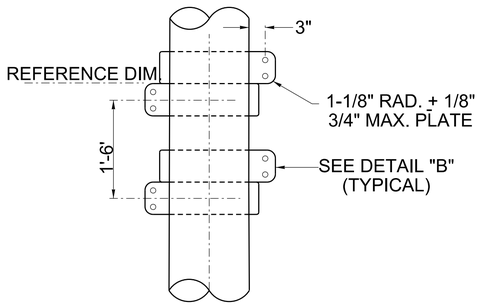


POLE TOP DETAIL





DETAIL "B"



DETAIL "A"

CONDUCTOR ATTACHMENT &
INSULATOR ATTACHMENT BRACKET

75° - 100° DEADEND - FIBER SPLICE 345kV
STRUCTURE DRAWING
STEEL 3-POLE - FOUNDATION

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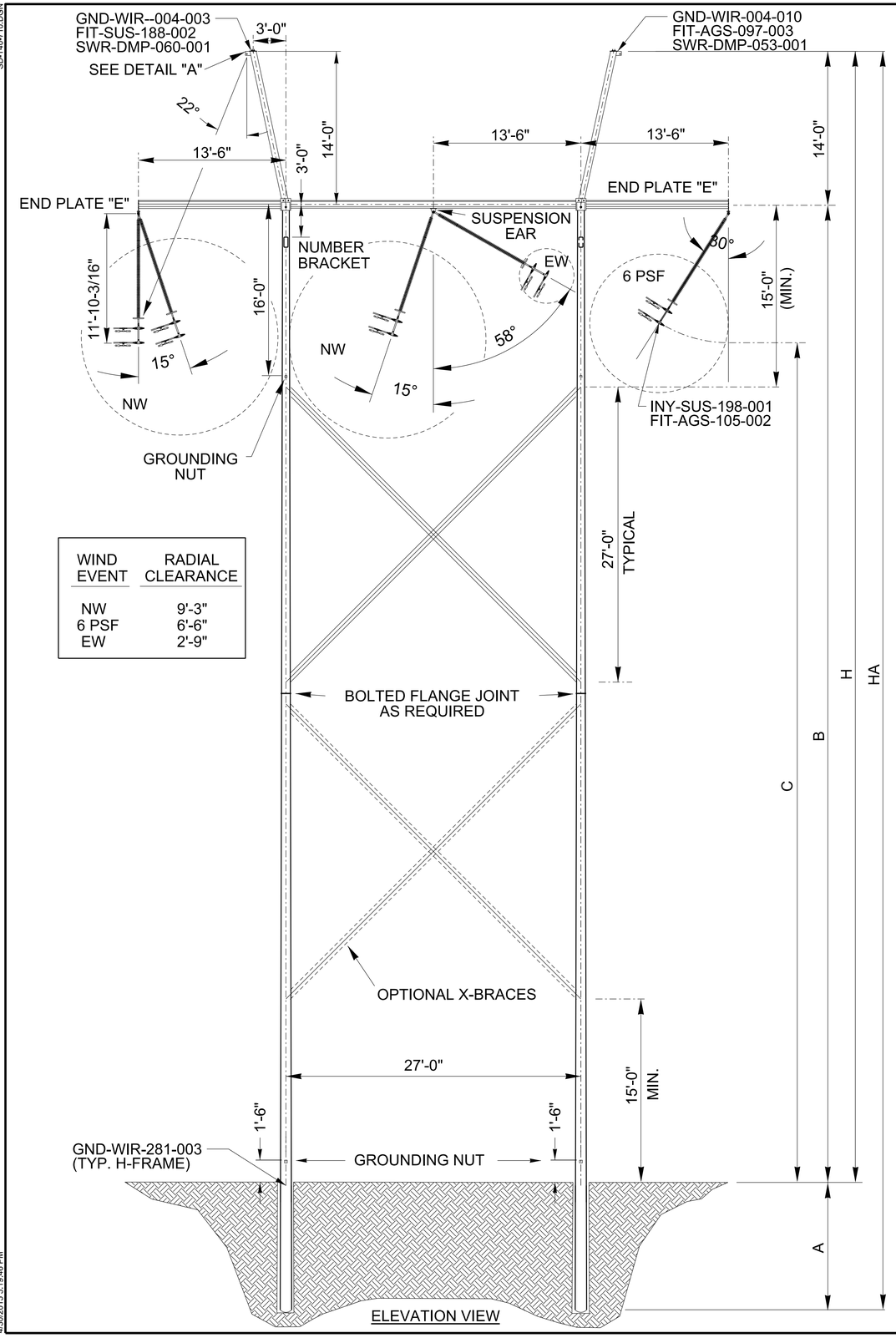
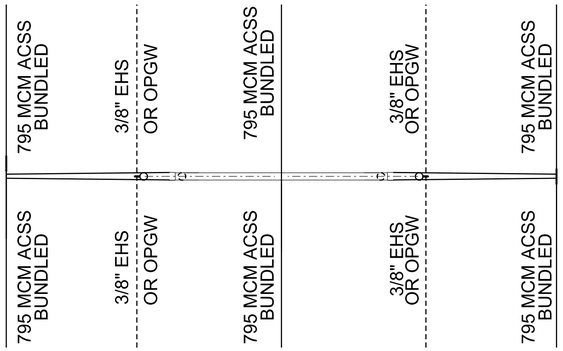


ELEVATION VIEW

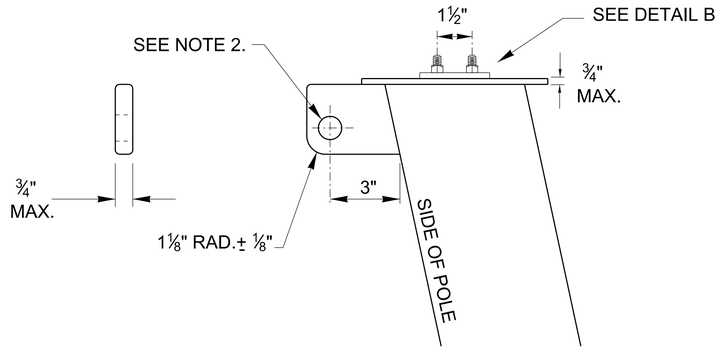
WIND EVENT	RADIAL CLEARANCE
NW	9'-3"
6 PSF	6'-6"
EW	2'-9"



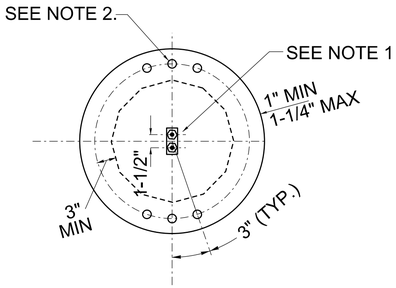
PLAN VIEW

GENERAL NOTES

1. (2) 1/2" ALL THREAD STUDS, 1-1/2" APART, 1" MINIMUM PROTRUSION. INSTALL 3" X 1-1/4" COVER PLATE WITH NUTS. FOR PAINTED POLES PRIME, BUT DO NOT PAINT AREA UNDER COVER PLATE. COVER PLATE SHALL BE INSTALLED WHEN WEATHERING STEEL IS SPECIFIED.
2. 1" DIAMETER HOLE WITH 1/8" CHAMFER BOTH SIDES.
3. INSTALL STEP LUGS FROM 85' ABOVE GROUND LINE TO TOP OF POLE.
4. POLE HOLE DEPTH SHALL BE ACCURATE. WHEN HOLES DO NOT ALLOW STRUCTURE TO BE EVEN AND LEVEL, THE DEEP HOLE SHALL BE BACKFILLED AND THOROUGHLY TAMPED TO PROPER DEPTH.
5. POLE NUMBER SHALL BE INSTALLED ON EACH POLE AS REQUIRED.
6. SEE SHEET T-0-400 FOR GENERAL DETIALS.
7. SEE SHEET T-0-400A FOR ARM AND END PLATE DETAILS.
8. SUSPENSION INSULATORS TO BE 345kV POLYMER INSULATORS.
9. STRUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.
10. BEARING PLATES TO BE MINIMUM 12" LARGER THAN POLE DIAMTER. PLATE THICKNESS IS TO BE 3/4".

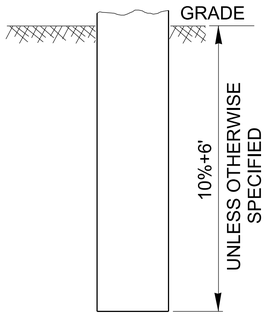


DETAIL "A"



DETAIL "B"

DIMENSIONS				
HA	H	A	B	C
110'0"	93'0"	17'0"	79'0"	66'6"
115'0"	97'6"	17'6"	83'6"	71'0"
120'0"	102'0"	18'0"	88'0"	75'6"
125'0"	106'6"	18'6"	92'6"	80'0"
130'0"	111'0"	19'0"	97'0"	84'6"
135'0"	115'6"	19'6"	101'6"	89'0"
140'0"	120'0"	20'0"	106'0"	93'6"
145'0"	124'6"	20'6"	110'6"	98'0"
150'0"	129'0"	21'0"	115'0"	102'6"
155'0"	133'6"	21'6"	119'6"	107'0"
160'0"	138'0"	22'0"	124'0"	111'6"
165'0"	142'6"	22'6"	128'6"	116'0"
170'0"	147'0"	23'0"	133'0"	120'6"
175'0"	151'6"	23'6"	137'6"	125'0"
180'0"	156'0"	24'0"	142'0"	129'6"
185'0"	160'6"	24'6"	146'6"	134'0"
190'0"	165'0"	25'0"	151'0"	138'6"
195'0"	169'6"	25'6"	155'6"	143'0"
200'0"	174'0"	26'0"	160'0"	147'5"
205'0"	178'6"	26'6"	164'6"	152'0"



DIRECT BURIAL DETAIL

0° - 2° TANGENT 345kV
STRUCTURE DRAWING
STEEL H-FRAME - EMBEDDED

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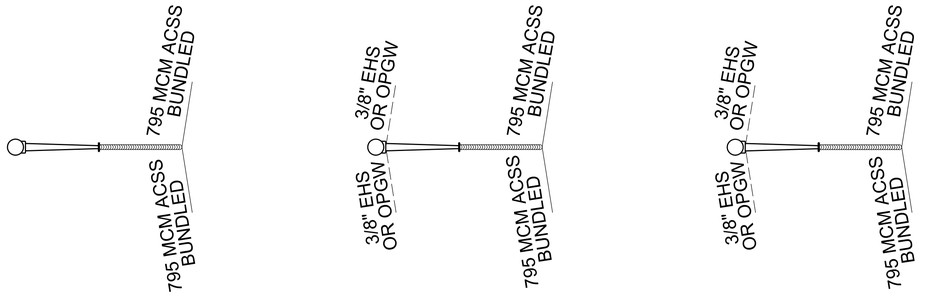
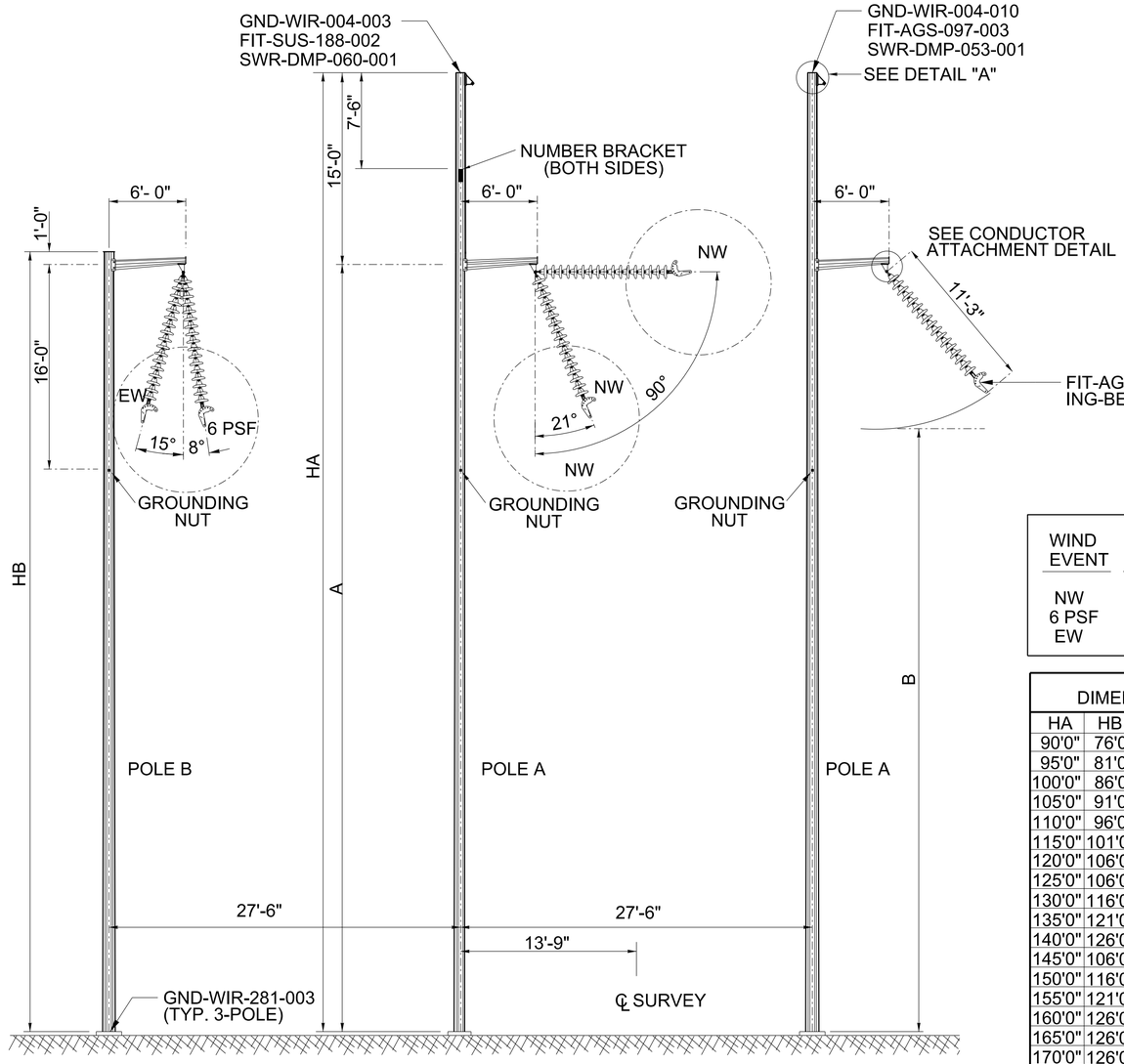


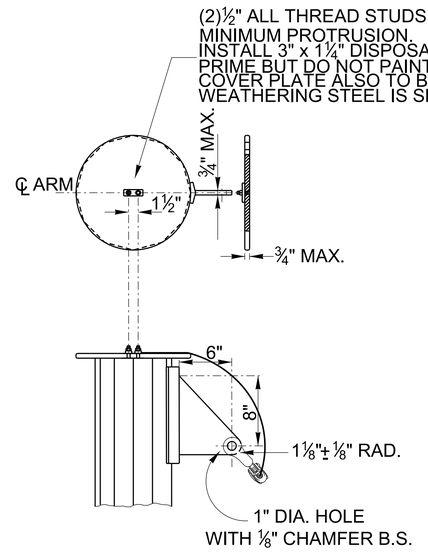


WIND EVENT	RADIAL CLEARANCE
NW	9'-3"
6 PSF	6'-6"
EW	2'-9"

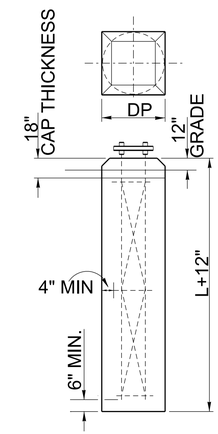
DIMENSIONS			
HA	HB	A	B
90'0"	76'0"	75'0"	61'0"
95'0"	81'0"	80'0"	66'0"
100'0"	86'0"	85'0"	71'0"
105'0"	91'0"	90'0"	76'0"
110'0"	96'0"	95'0"	81'0"
115'0"	101'0"	100'0"	86'0"
120'0"	106'0"	105'0"	91'0"
125'0"	106'0"	110'0"	96'0"
130'0"	116'0"	115'0"	101'0"
135'0"	121'0"	120'0"	106'0"
140'0"	126'0"	125'0"	111'0"
145'0"	106'0"	130'0"	116'0"
150'0"	116'0"	135'0"	111'0"
155'0"	121'0"	140'0"	126'0"
160'0"	126'0"	145'0"	131'0"
165'0"	126'0"	150'0"	136'0"
170'0"	126'0"	155'0"	141'0"
175'0"	126'0"	160'0"	146'0"
180'0"	126'0"	165'0"	151'0"

GENERAL NOTES

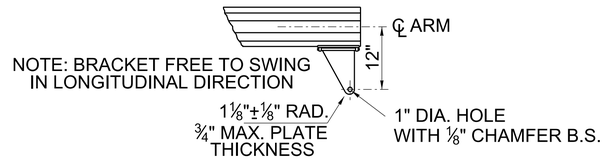
1. 1" DIAMETER HOLE WITH 1/8" CHAMFER BOTH SIDES, TYPICAL.
2. (2) 1/2" ALL THREAD STUDS, 1-1/2" APART, 1" MINIMUM PROTRUSION. INSTALL 3" X 1-1/4" COVER PLATE WITH NUTS. FOR PAINTED POLES PRIME, BUT DO NOT PAINT AREA UNDER COVER PLATE. COVER PLATE SHALL BE INSTALLED WHEN WEATHERING STEEL IS SPECIFIED.
3. INSTALL STEP LUGS FROM 85' ABOVE BASE PLATE TO TOP OF POLE.
4. POLE NUMBER SHALL BE INSTALLED ON EACH POLE AS REQUIRED.
5. SEE SHEET T-0-400 FOR GENERAL DETAILS.
6. SEE SHEET T-0-400A FOR END PLATE DETAILS.
7. SEE SHEET T-0-400C FOR ANCHOR BOLT CAGE DETAILS.
8. SUSPENSION INSULATORS ARE TO BE 345KV TOUGHENED GLASS INSULATORS.
9. RUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.



STATIC CONNECTION
DETAIL "A"



FOOTING DATA



CONDUCTOR ATTACHMENT

10° - 18° RUNNING ANGLE — 345kV
STRUCTURE DRAWING
STEEL 3-POLE - FOUNDATION

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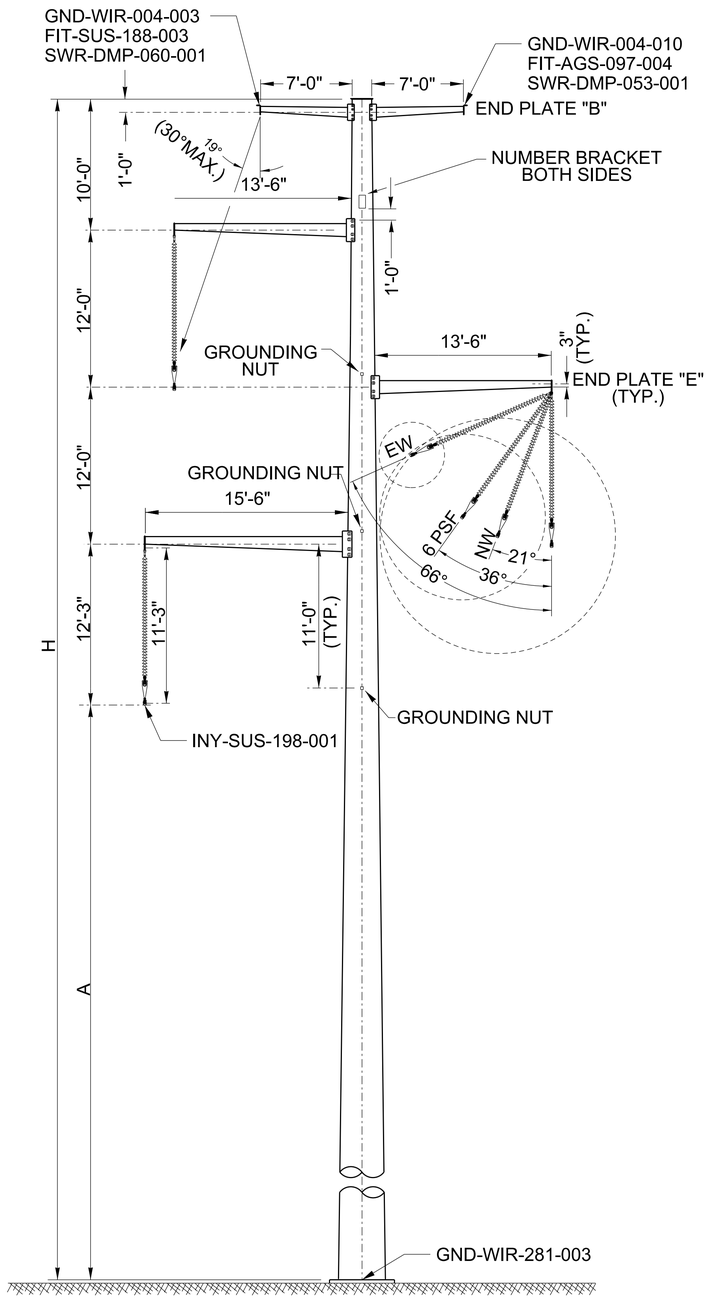
SD-T40-715.DGN

GENERAL NOTES

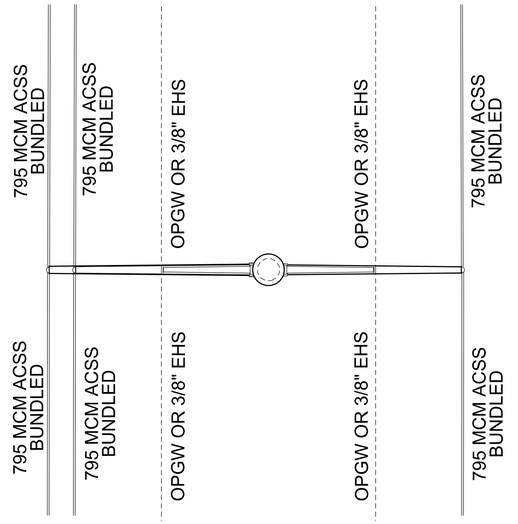
1. INSTALL STEP LUGS FROM 85' ABOVE BASE PLATE TO TOP OF POLE.
2. POLE NUMBER SHALL BE INSTALLED ON EACH POLE AS REQUIRED.
3. SEE SHEET T-0-400 FOR GENERAL DETAILS.
4. SEE SHEET T-0-400A FOR ARM END PLATE AND DEADEND EAR DETAILS.
5. SEE SHEET T-0-400C FOR ANCHOR BOLT CAGE DETAILS.
6. SUSPENSION INSULATORS ARE TO BE 345KV POLYMER INSULATORS.
7. STRUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.



ELEVATION VIEW

WIND EVENT	RADIAL CLEARANCE
NW	9'-3"
6 PSF	6'-6"
EW	2'-9"

DIMENSIONS	
H	A
90'0"	43'3"
95'0"	48'3"
100'0"	53'3"
105'0"	58'3"
110'0"	63'3"
115'0"	68'3"
120'0"	73'3"
125'0"	78'3"
130'0"	83'3"
135'0"	88'3"
140'0"	93'3"
145'0"	98'3"
150'0"	103'3"
155'0"	108'3"
160'0"	113'3"
165'0"	118'3"
170'0"	123'3"
175'0"	128'3"
180'0"	133'3"



PLAN VIEW

0° - 2° TANGENT 345kV
STRUCTURE DRAWING
STEEL SINGLE POLE - FOUNDATION

Xcel Energy® | SD-T40-715 | SCALE NONE | REV NONE

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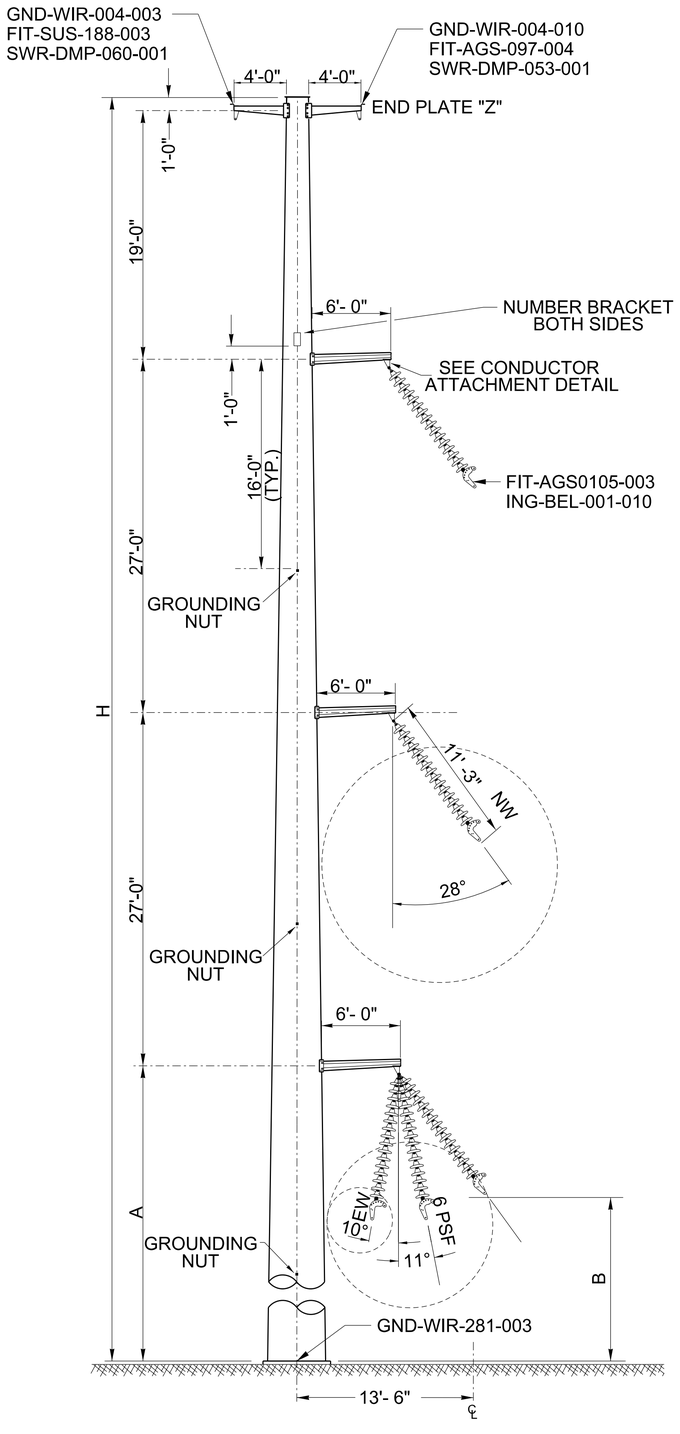
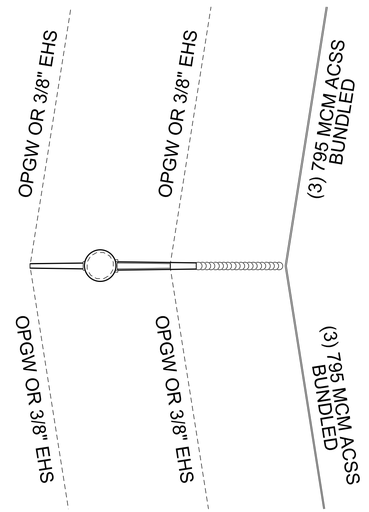
SD-T40-716.DGN



ELEVATION VIEW



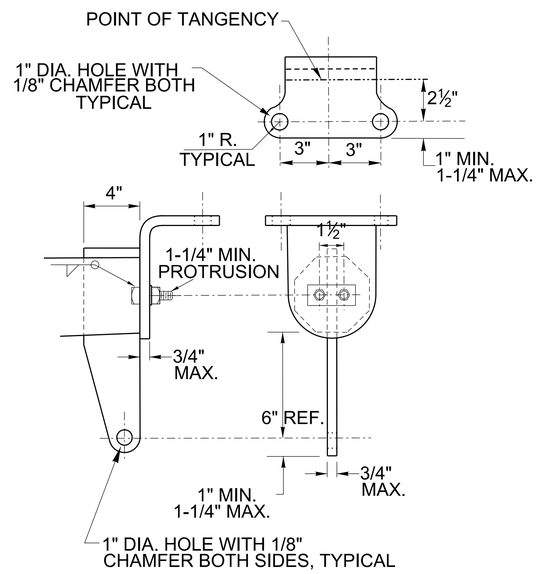
PLAN VIEW

WIND EVENT	RADIAL CLEARANCE
NW	9'-3"
6 PSF	6'-6"
EW	2'-9"

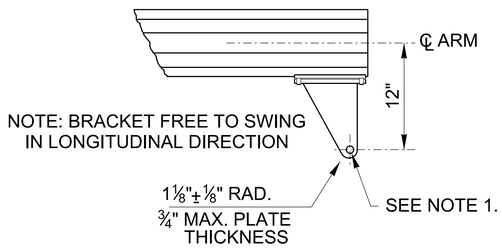
DIMENSIONS		
H	A	B
115'	41'0"	30'9"
120'	46'0"	35'9"
125'	51'0"	40'9"
130'	56'0"	45'9"
135'	61'0"	50'9"
140'	66'0"	55'9"
145'	71'0"	60'9"
150'	76'0"	65'9"
155'	81'0"	70'9"
160'	86'0"	75'9"
165'	91'0"	80'9"
170'	96'0"	85'9"
175'	101'-0"	90'9"
180'	106'-0"	95'9"

GENERAL NOTES

1. INSTALL STEP LUGS FROM 85' ABOVE BASE PLATE TO TOP OF POLE.
2. POLE NUMBER SHALL BE INSTALLED ON EACH POLE AS REQUIRED.
3. SEE SHEET T-0-400 FOR GENERAL DETAILS.
4. SEE SHEET T-0-400A FOR ARM END PLATE AND DEADEND EAR DETAILS.
5. SEE SHEET T-0-400C FOR ANCHOR BOLT CAGE DETAILS.
6. SUSPENSION INSULATORS ARE TO BE 345KV TOUGHENED GLASS INSULATORS.
7. STRUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.



END PLATE "Z"



CONDUCTOR ATTACHMENT

6° - 16° RUNNING ANGLE 345kV
STRUCTURE DRAWING
STEEL SINGLE POLE - FOUNDATION

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