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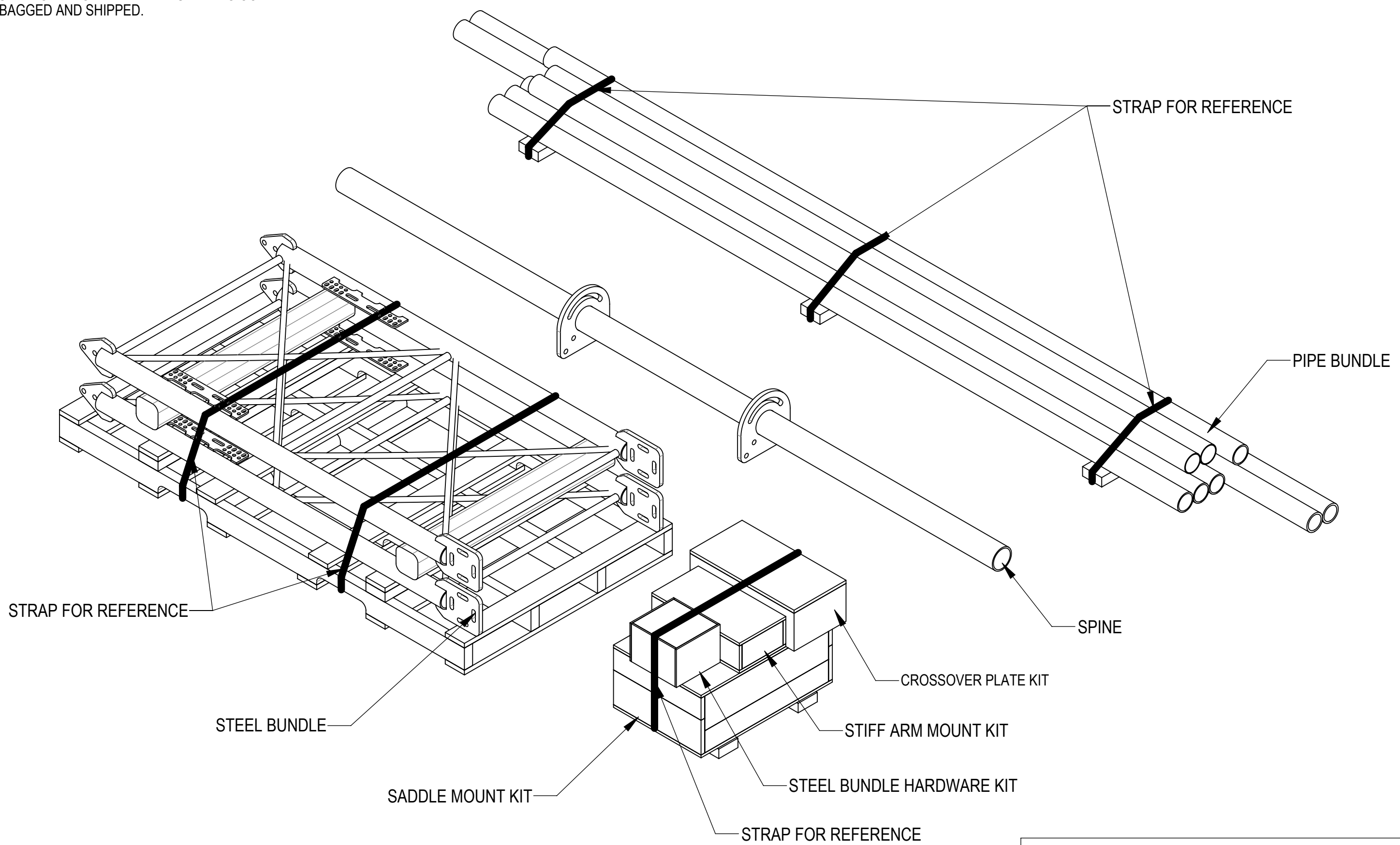
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- 1.0 GENERAL NOTES
 1.1 ALL METRIC DIMENSIONS ARE IN BRACKETS [X.X]
 1.2 FOR PATENT INFO: <https://www.cs-pat.com>
- 2.0 DESIGN NOTES
 2.1 ANY HAZARDS OR OBSTRUCTIONS TO THE CLIMBING FACILITY AND SAFETY CLIMB MUST BE IDENTIFIED PRIOR TO INSTALLING THE APPURTENANCE. ADDITIONAL PRODUCTS MAY BE REQUIRED TO MAINTAIN THE INTEGRITY OF THE SAFETY CLIMB. DURING INSTALLATION, TEMPORARY AND/OR PERMANENT PRECAUTIONARY MEASURES SHOULD BE TAKEN TO PRESERVE THE CLIMBING FACILITY AND/OR SAFETY CLIMB.
 2.2 UP TO 5.0° TAPER AVAILABLE ON MODELS THAT SUPPORT ADJUSTMENT
- 3.0 MANUFACTURING/SPECIAL REQUIREMENTS
 3.1 TIGHTEN ALL BOLTS SECURING FLAT PLATES BY THE TURN-OF-NUT METHOD. TIGHTEN ALL U-BOLTS USING TURN-OF-NUT METHOD WITH ATTENTION TO LEAVE EQUAL DISTANCE AND EQUAL FORCE ON EACH LEG OF THE U-BOLT.
- 4.0 TEST
- 5.0 PACKAGING
 5.1 PACKAGING SHALL MEET COMMScope REQUIREMENTS PER DOCUMENT IS-PL-3005.
 5.2 PRINTED DOCUMENT TO BE PLACED INSIDE POLYBAG AND THEN IN SHIPPING CONTAINER.
 5.3 EXTRA HARDWARE MAY BE SUPPLIED, BAGGED AND SHIPPED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
B	ADDED SFG23RHDXL12-4-96, SFG23RHDXL14-4-96, SFG23RHDXL14-4-126, SFG23RHDXL14-5-96 AND SFG23RHDXL14-5-126 TO SERIES	RY1002 22NOV23	YC1015 40183018CMO
C	ADDED SFG23RHDXL11-3-96, SFG23RHDXL12-4-126, SFG23RHDXL13-4-96, SFG23RHDXL15-4-96 AND SFG23RHDXL15-5-96 TO SERIES	RY1002 11DEC23	YC1015 40182550CMO
D	CHG PALLET FROM QVPALLET TO 74X38PALLET; UPDATED SFG23180-00 TO ADD UNIVERSAL INTERFACE PLATES	RY1002 25JUL24	XK1001 40200655CMO
E	UPDATED EPA TABLE	YMENG 12DEC24	CB1094 40210882CMO



COMMScope, INC. OF NORTH CAROLINA									
TOLERANCES					SAP MATERIAL MASTER				
1 PLACE .X[X] ± 0.2[6.3]		3 PLACE .XXX[X] ± 0.060[1.5]			SEE TABLE 1				
2 PLACE .XX[X] ± 0.12[3.0]		ANGLES ± 2°							
FINISH					MATERIAL				
		NAME		DATE		TITLE			
		CE YMENG		08OCT23		SFG23RHDXL SECTOR FRAME SERIES			
		RW YMENG		12/16/2024					
		AD CB1094		12/17/2024		SCALE		DOCUMENT NO.	
		RE YMENG		12/17/2024		1:32		SFG23RHDXL	
		ECN 40210882CMO							
		SIZE		Auth Group		INSL		MODEL	
		C		⊕		▽		VERSION	
								STATUS	
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								REVISION	
								SHEET	
								1 OF 12	

DENSITY	lbs/in ³
MASS	lbs
VOLUME	in ³
SURFACE AREA	in ²
HEIGHT	
LENGTH	
WIDTH	

PART NUMBERS, WEIGHTS, & EPA

TABLE 1: CONFIGURATIONS

PART NUMBER	DESCRIPTION	WEIGHT (LBS)	MOUNT EPA W/NO ICE (FT²)			MOUNT EPA W/ 1/2" ICE (FT²)			ANTENNA PIPES	INCLUDED PARTS																															
			EPA(N)	EPA(T)	EPA(A) 3-SECTORS	EPA(N)	EPA(T)	EPA(A) 3-SECTORS		SM-U2080HDG23	SFG22HDX-HK01	SFG23RHDXL-SB01	SFG23RHDXL-HK01	PB02TEB0211P	PB02TEB0308K0211P	PB02TEB0310K0211P	PB02TEB0212P	PB02TEB0408K0212P	PB02TEB0410K0212P	PB02TEB0213P	PB02TEB0408K0213P	PB02TEB0410K0213P	PB02TEB0214P	PB02TEB0408K0214P	PB02TEB0410K0214P	PB02TEB0508K0214P	PB02TEB0510K0214P	PB02TEB0215P	PB02TEB0408K0215P	PB02TEB0410K0215P	PB02TEB0508K0215P	SFG2204	SFG23100	XP-2525-4	XP-2525-6	XP-2525-8					
SFG23RHDXL-11-B	SF,11',BASE-KIT	743.66																																							
SFG23RHDXL11-3-96	SECTOR FRAME 11' FACE,(3) 96" ANT	931.77	11.70	12.52	29.06	17.07	18.94	43.21																																	
SFG23RHDXL11-3-126	SF,11',(3)2.88"X126"-PIPES-PIM-SPACED	977.03																																							
SFG23RHDXL-12-B	SF,12',BASE-KIT	766.73																																							
SFG23RHDXL12-4-96	SECTOR FRAME 12' FACE,(4) 96" ANT	1017.54	12.50	12.52	30.02	18.13	18.94	44.49																																	
SFG23RHDXL12-4-126	SECTOR FRAME 12' FACE,(4) 126" ANT	1077.88																																							
SFG23RHDXL-13-B	SF,13',BASE-KIT	774.42																																							
SFG23RHDXL13-4-96	SECTOR FRAME 13' FACE,(4) 96" ANT	1025.23	12.76	12.52	30.34	18.48	18.94	44.91																																	
SFG23RHDXL13-4-126	SF,13',(4)2.88"X126"-PIPES-PIM-SPACED	1085.57																																							
SFG23RHDXL-14-B	SF,14',BASE-KIT	797.49																																							
SFG23RHDXL14-4-96	SECTOR FRAME 14' FACE,(4) 96" ANT	1048.30																																							
SFG23RHDXL14-4-126	SECTOR FRAME 14' FACE,(4) 126" ANT	1108.64	13.56	12.52	31.30	19.54	18.94	46.18																																	
SFG23RHDXL14-5-96	SECTOR FRAME 14' FACE,(5) 96" ANT	1111.00																																							
SFG23RHDXL14-5-126	SECTOR FRAME 14' FACE,(5) 126" ANT	1186.42																																							
SFG23RHDXL-15-B	SF,15',BASE-KIT	805.17																																							
SFG23RHDXL15-4-96	SECTOR FRAME 15' FACE,(4) 96" ANT	1055.98																																							
SFG23RHDXL15-4-126	SF,15',(4)2.88"X126"-PIPES-PIM-SPACED	1116.33	13.83	12.52	31.62	19.90	18.94	46.61																																	
SFG23RHDXL15-5-96	SECTOR FRAME 15' FACE,(5) 96" ANT	1118.69																																							
SFG23RHDXL15-5-126	SF,15',(5)2.88"X126"-PIPES-PIM-SPACED	1194.11																																							

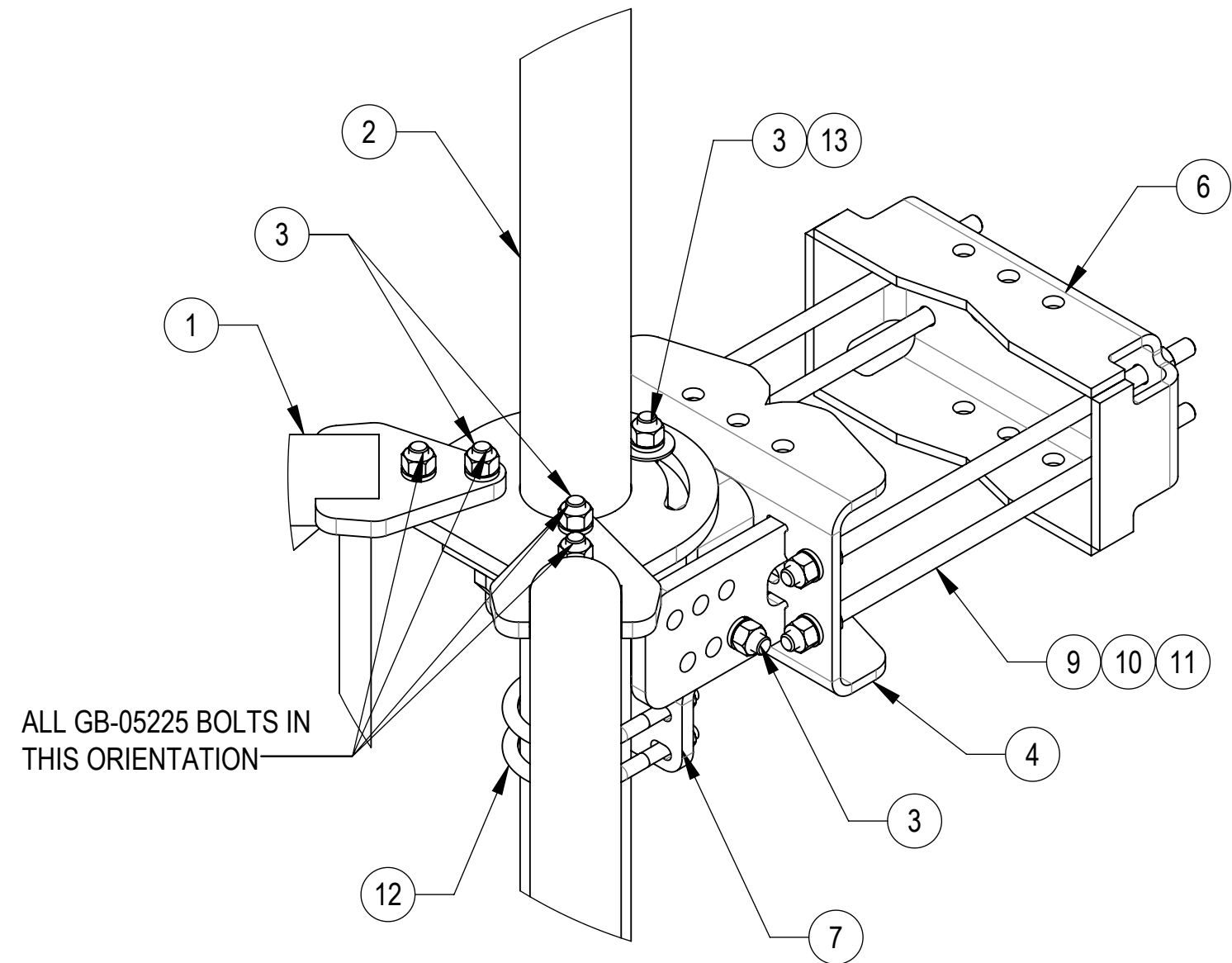
- NOTES:
1. NO MOUNT PIPES CONSIDERED.
 2. MOUNT CONNECTION MEMBERS TO TOWER CONSIDERED.
 3. 3-SECTOR EPA INCLUDES KA FACTORS.

TABLE 2: EPA OF EACH ANTENNA PIPE

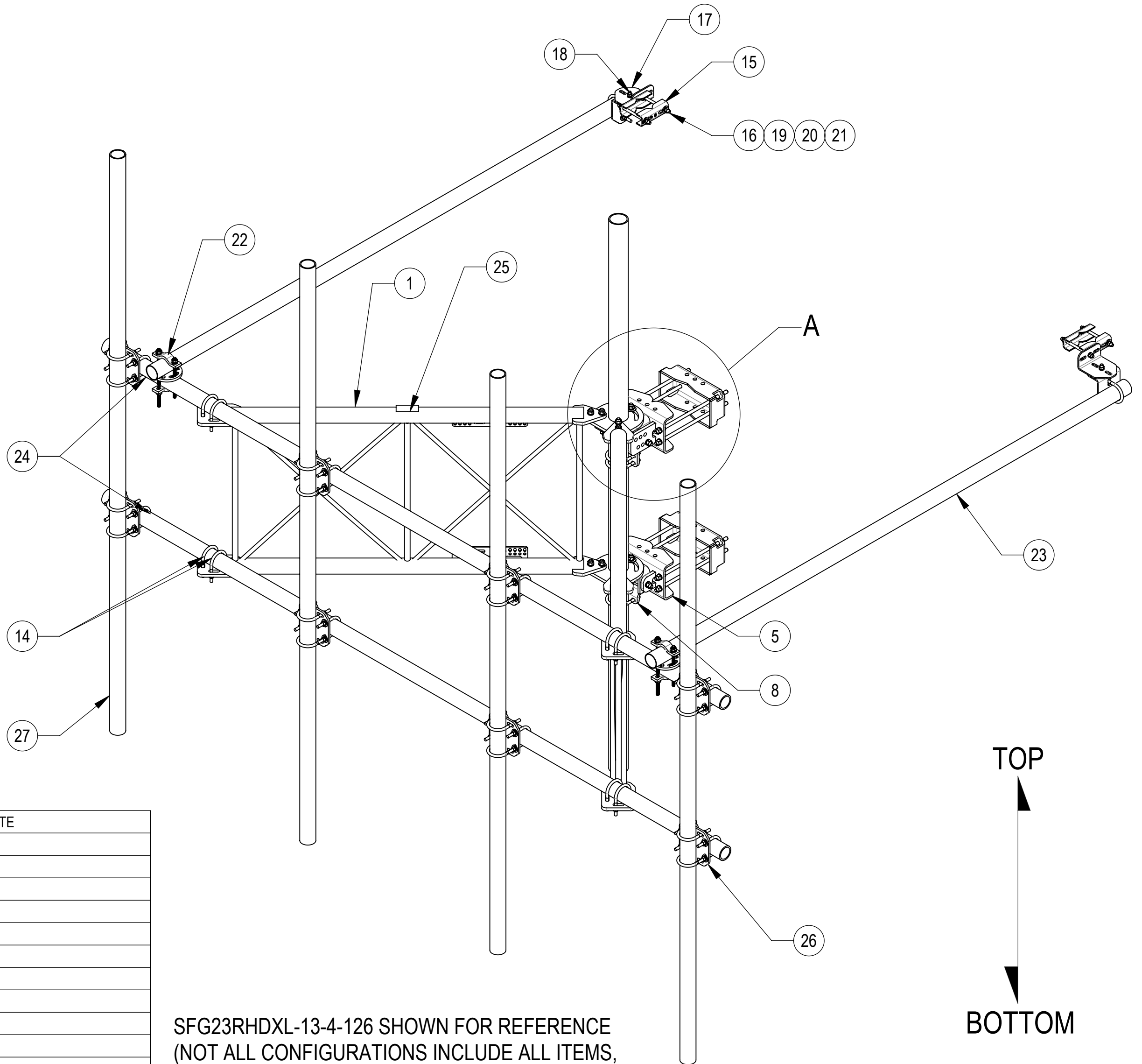
ANTENNA PIPE	MOUNT EPA W/NO ICE (FT²)			MOUNT EPA W/ 1/2" ICE (FT²)		
	FRONT (EPA)N	SIDE (EPA)T	3-SECTORS (EPA)A	FRONT (EPA)N	SIDE (EPA)T	3-SECTORS (EPA)A
2-7/8" X 96"	2.07	2.07	1.84	2.79	2.79	2.48
2-7/8" X 126"	2.72	2.72	2.42	3.67	3.67	3.26

- NOTES:
1. ANTENNA PIPES ARE CONSIDERED SEPARATELY.
 2. KA FACTOR OF 3-SECTOR EPA INCLUDED.
 3. COMBINE THE ASSOCIATED EPA VALUES IN THE TABLES ABOVE TO DETERMINE THE EPA OF A MOUNT MODEL WITH A LISTED MOUNT PIPE CONFIGURATION. FOR EXAMPLE: SFG23RHDXL13-4-126 HAS A FRONT EPA OF 12.76 FT² WITH NO ICE PLUS 4 ANTENNA PIPES WITH A FRONT EPA OF 4X2.72=10.88 FT² WITH NO ICE. SO, THE TOTAL FRONT EPA SHOULD BE 23.64 FT²; (SIDE EPA SAME METHOD AS FRONT EPA). WHEN 3 SECTOR FRAME ARE MOUNTED AT THE SAME RELATIVE ELEVATION IN AN ARRANGEMENT, IT HAS A 3-SECTOR EPA OF 30.34 FT² WITH NO ICE PLUS 4 ANTENNA PIPES WITH A 3-SECTOR EPA OF (4X2.42)X3=29.04 FT² WITH NO ICE. SO, THE TOTAL 3-SECTOR EPA SHOULD BE 59.38 FT²;

COMMSCOPE, INC. OF NORTH CAROLINA					
TITLE SFG23RHDXL SECTOR FRAME SERIES					
SIZE C	SCALE 1:16	DOCUMENT NO. SFG23RHDXL			
DRAWING VERSION 04 STATUS RE REVISION E					SHEET 2 OF 12

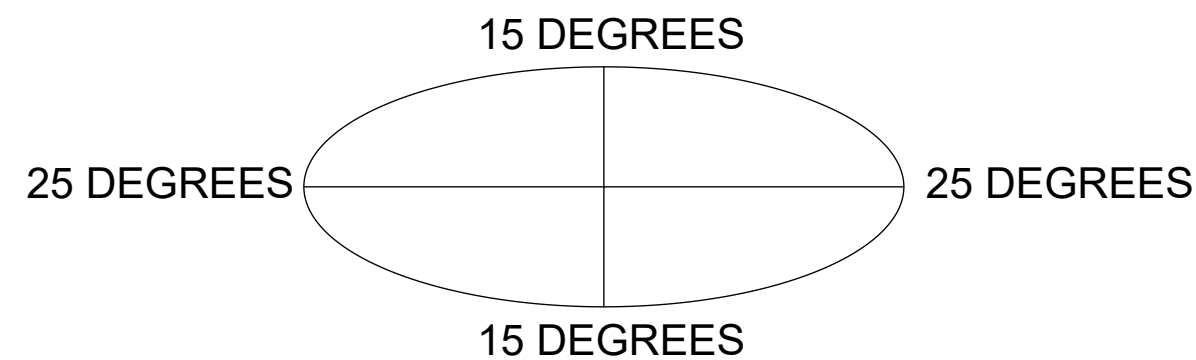


DETAIL A
SCALE 1 : 5



SFG23RHDXL-13-4-126 SHOWN FOR REFERENCE
(NOT ALL CONFIGURATIONS INCLUDE ALL ITEMS,
SEE NOTES IN TABLE)

ALLOWABLE TIEBACK ANGLE
± 15 DEGREES VERTICAL
± 25 DEGREES HORIZONTAL



COMPONENT PART NUMBERS PROVIDED FOR ASSEMBLY PURPOSES;
INDIVIDUAL COMPONENTS MAY BE SHIPPED AS PARTS WITHIN AN INCLUDED KIT.

ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT	NOTE
1	SFG23180-00	ARM, STANDOFF, SFG23	2	123.43 LBS	
2	SFG2204	WELDMENT, BACK VERTICAL ARM MOUNT	1	97.29 LBS	
3	GB-05225	5/8" X 2-1/4" GALV BOLT KIT	14	0.28 LBS	
4	SFG2380	WELDMENT, HD, TOP TAPER BRACKET	1	22.78 LBS	
5	SFG2381	WELDMENT, HD, LOWER TOWER LEG BRACKET	1	17.42 LBS	
6	SFG2289	G2 RRU BACK CLAMP, HD	2	18.65 LBS	
7	SFG2386	WELDMENT, SFG2 AZIMUTH BRACKET	1	10.07 LBS	
8	SFG2397-00	WELDMENT, G23 AZIMUTH BRACKET	1	7.94 LBS	
9	MT-382-18	5/8" X 18" THREADED ROD	8	1.43 LBS	
10	GWL-05	5/8" GALV LOCK WASHER	16	0.03 LBS	
11	GN-05	5/8" GALV HEX NUT	24	0.08 LBS	
12	GUB-4355	1/2" X 3-5/8" X 5" GALV U-BOLT	3	0.71 LBS	
13	GWF-05	5/8" GALV FLAT WASHER, 1.7OD	2	0.06 LBS	
14	GUB-4352	1/2" X 3" X 5-1/4" GALV U-BOLT	10	0.71 LBS	
15	SAB01	FORMED CLAMP	4	1.35 LBS	
16	MT-379-8	1/2" X 8" GALV THREADED ROD	4	0.45 LBS	
17	XAU01	ANGLE, CROSSOVER, 1.9-3.5" X 1.9-3.5" OD	4	2.98 LBS	
18	GB-04145	1/2" X 1-1/2" GALV BOLT KIT	2	0.13 LBS	
19	GWF-04	1/2" GALV FLAT WASHER	8	0.04 LBS	
20	GWL-04	1/2" GALV LOCK WASHER	10	0.01 LBS	
21	GN-04	1/2" GALV HEX NUT	10	0.04 LBS	
22	XP-R	CROSSOVER PLATE, ROUND, UP TO 3.5" OD	2	6.20 LBS	
23	MT546120120	PIPE, 2.875"OD X 120"	2	35.44 LBS	
24	MT546156276	PIPE, 2.875"OD X 156"	2	99.95 LBS	PART NO. SEE INDIVIDUAL DRAWING
25	SFG23100	LABEL, SFG23RHDXL	1	0.04 LBS	
26	XP-2525	CROSSOVER PLATE KIT, 2-7/8 OD X 2-7/8 OD	8	8.37 LBS	QTY SEE INDIVIDUAL DRAWING
27	MT-546-126	PIPE, 2.875"OD X 126"	4	61.05 LBS	PART NO. AND QTY SEE INDIVIDUAL DRAWING

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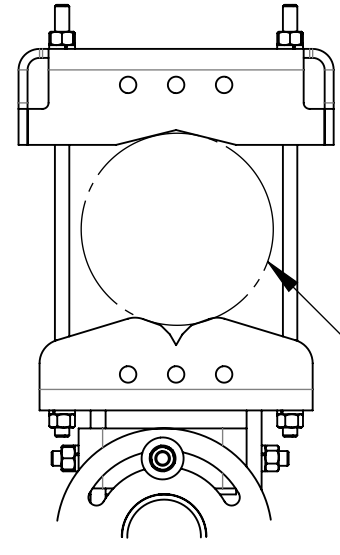
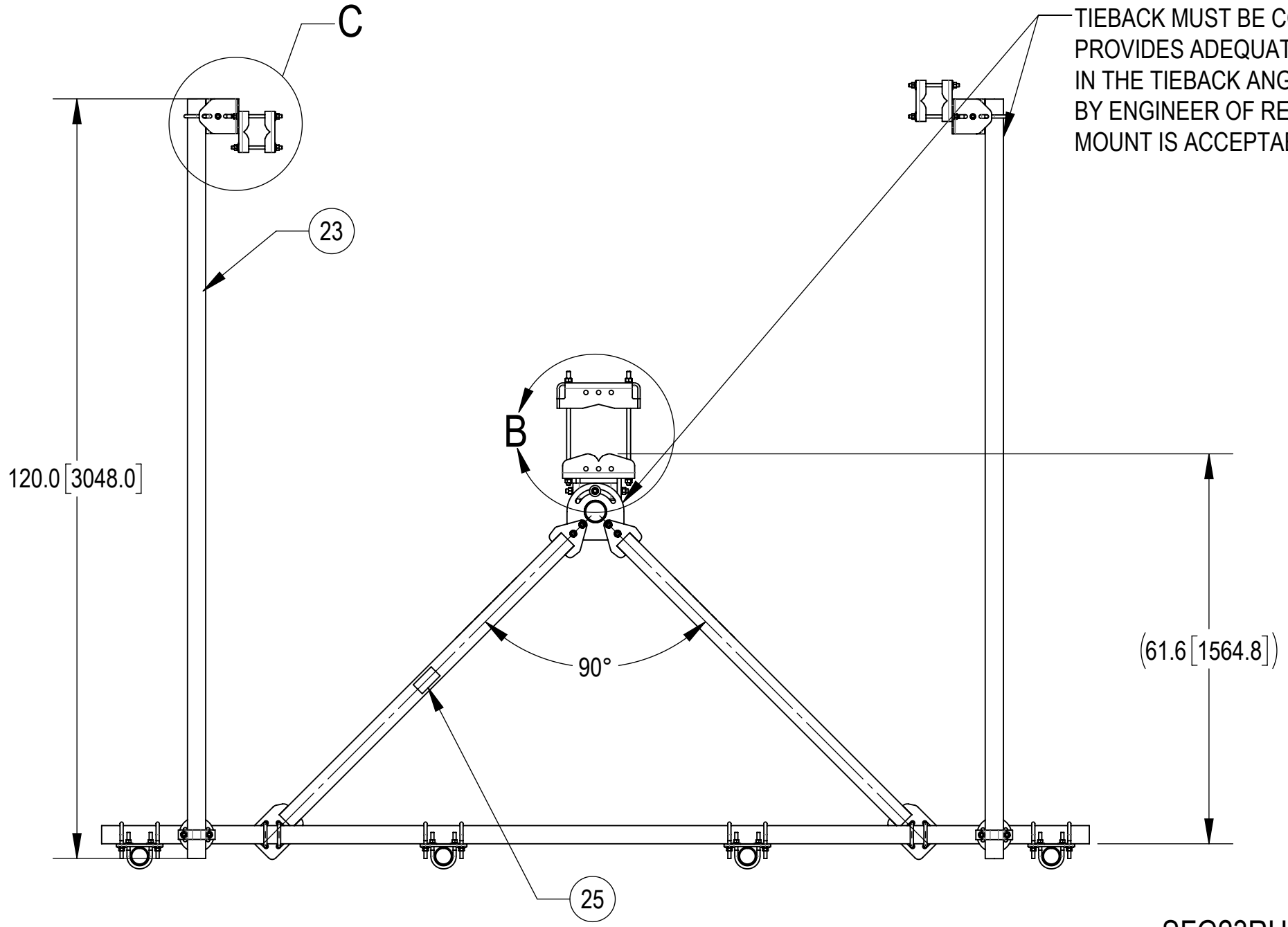
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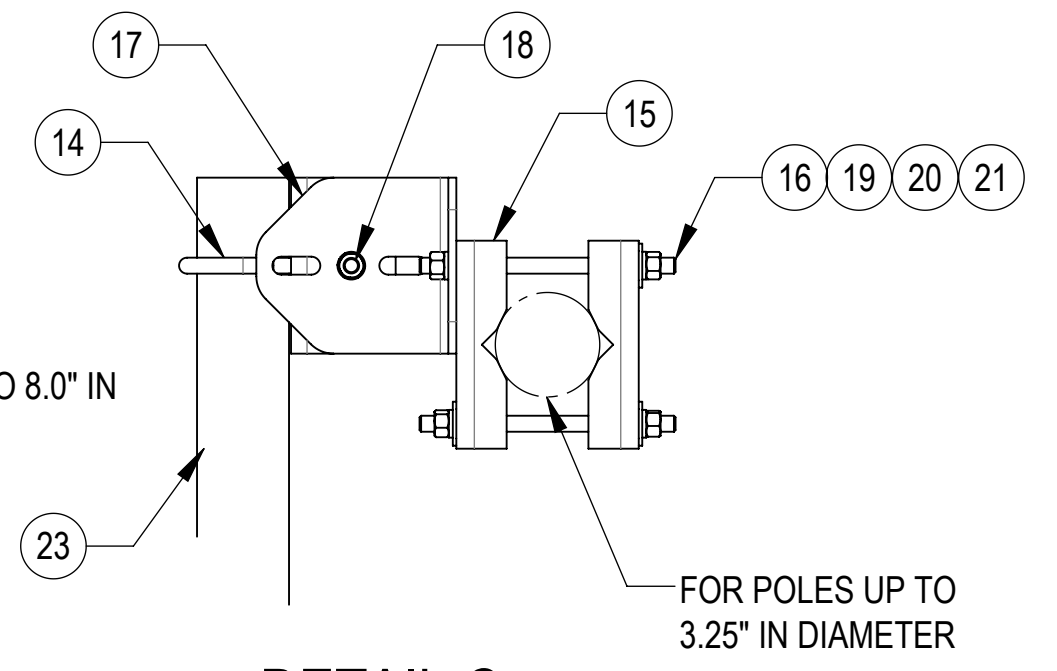
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TIEBACK MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT WITHIN THE LIMITS NOTED IN THE TIEBACK ANGLE RANGE DETAIL. UNLESS APPROVED BY ENGINEER OF RECORD. SPINE STEM OF NEIGHBORING MOUNT IS ACCEPTABLE.

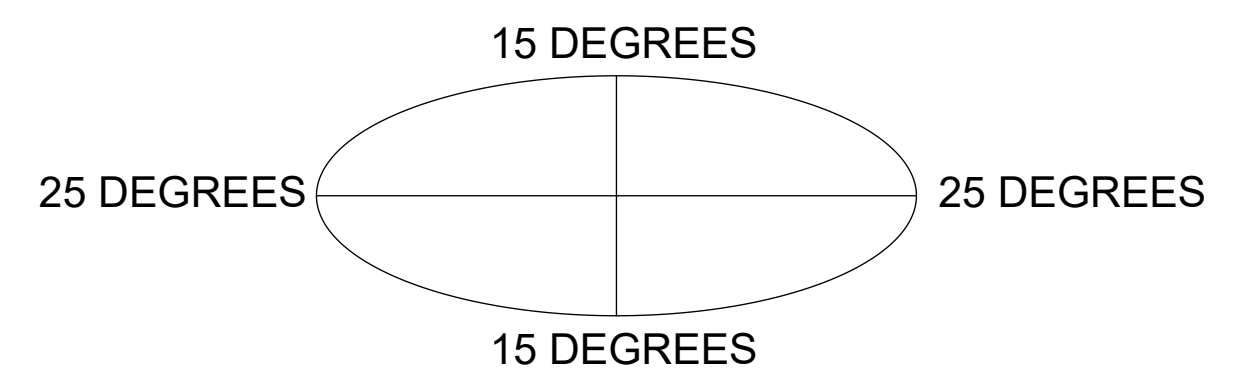


DETAIL B
SCALE 1 : 8



DETAIL C
SCALE 1 : 6

ALLOWABLE TIEBACK ANGLE
± 15 DEGREES VERTICAL
± 25 DEGREES HORIZONTAL



SFG23RHDXL-13-4-126 SHOWN FOR REFERENCE
(NOT ALL CONFIGURATIONS INCLUDE ALL ITEMS,
SEE NOTES IN TABLE ON SHEET 3)

C

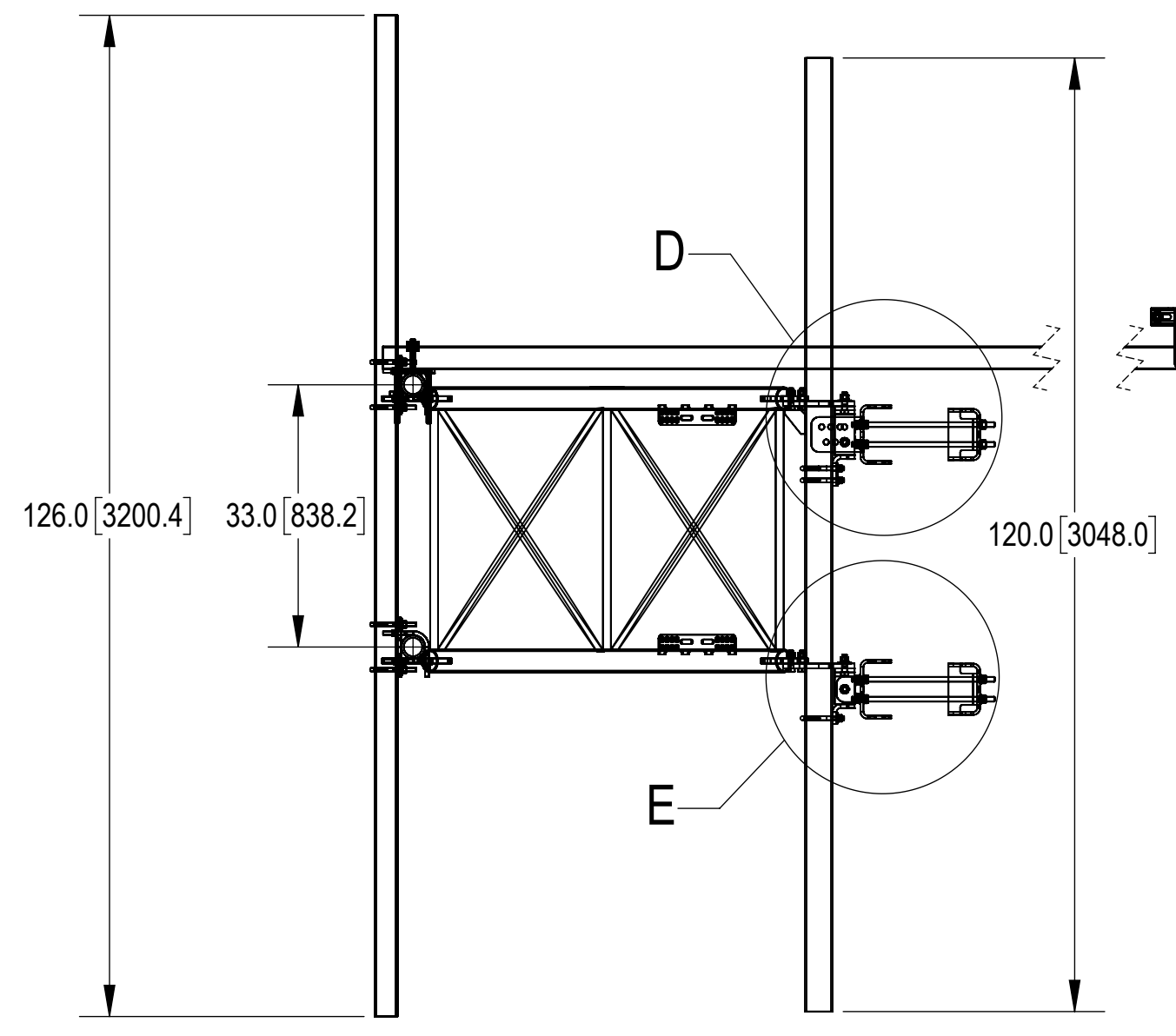
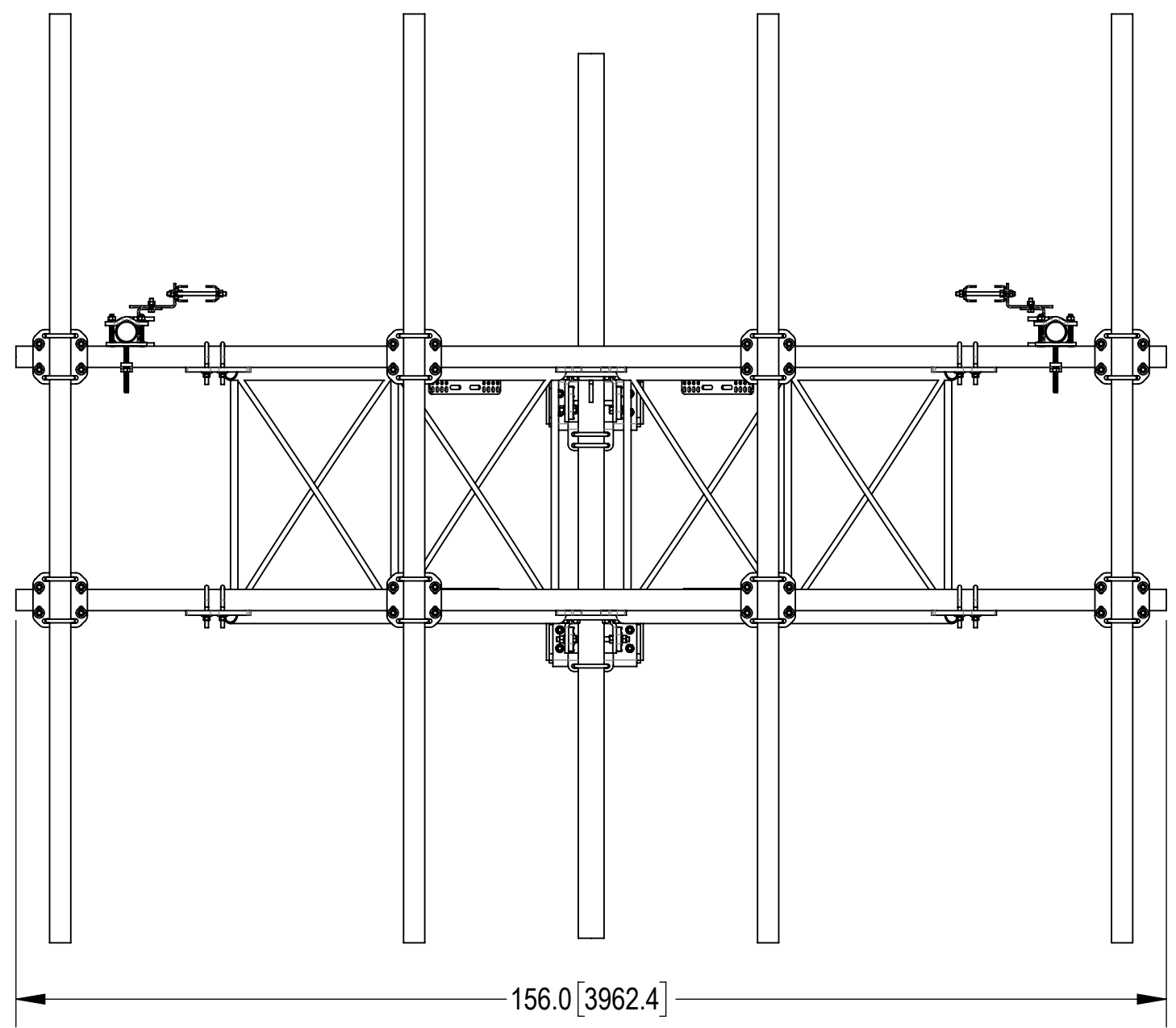
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B

B

A

A



TOP
↓
BOTTOM

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TITLE SFG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:21	DOCUMENT NO. SFG23RHDXL		
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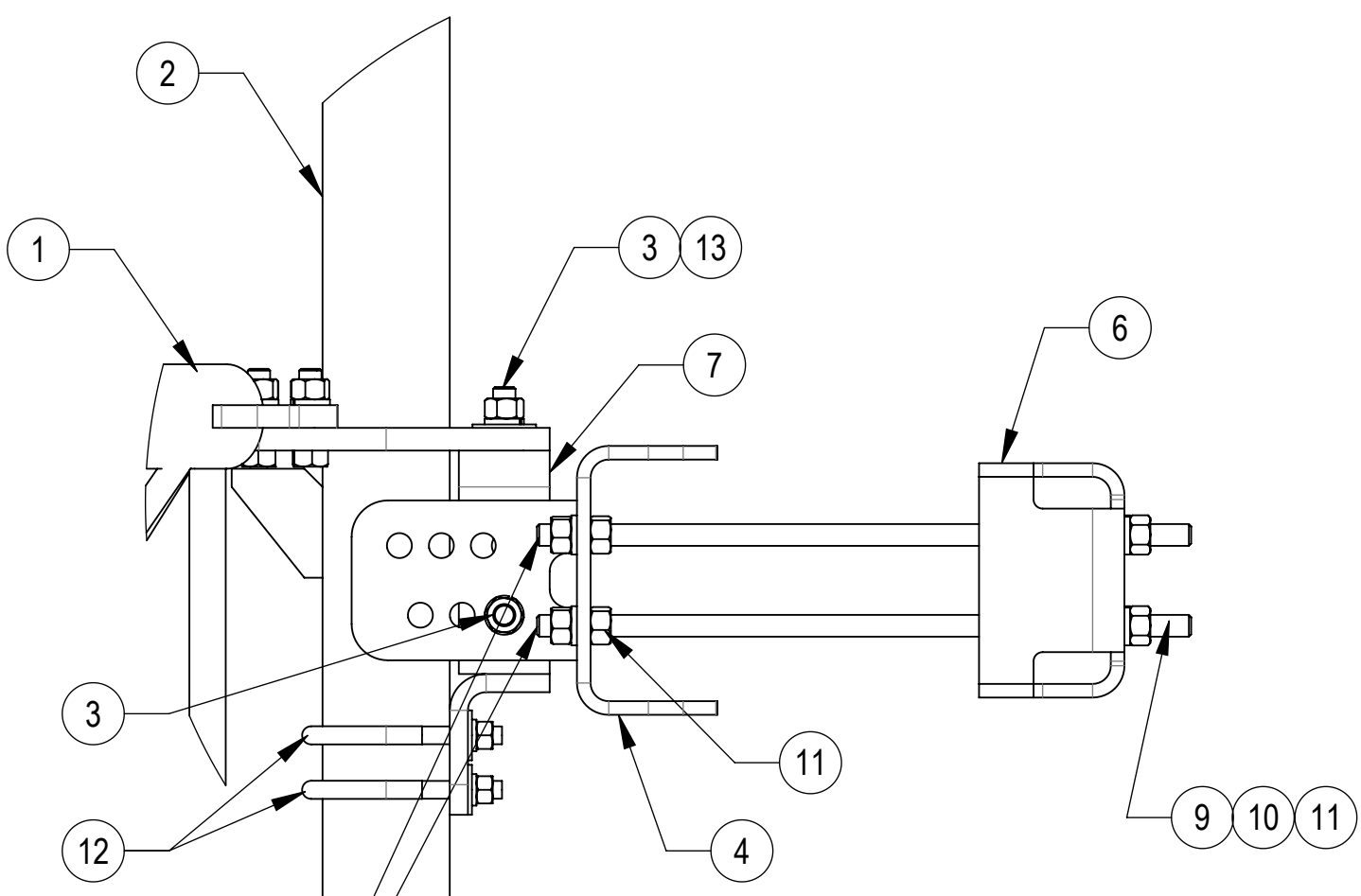
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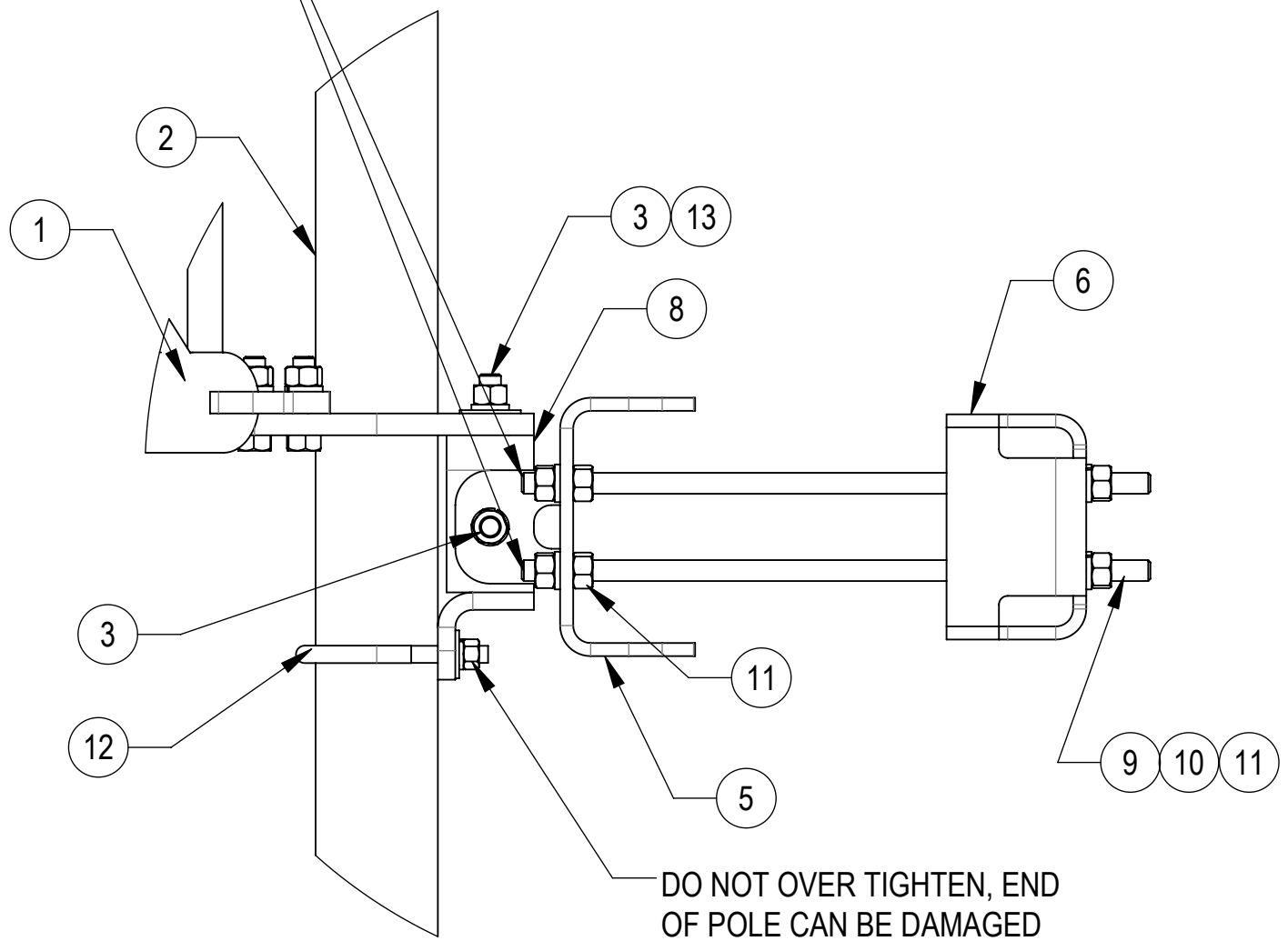
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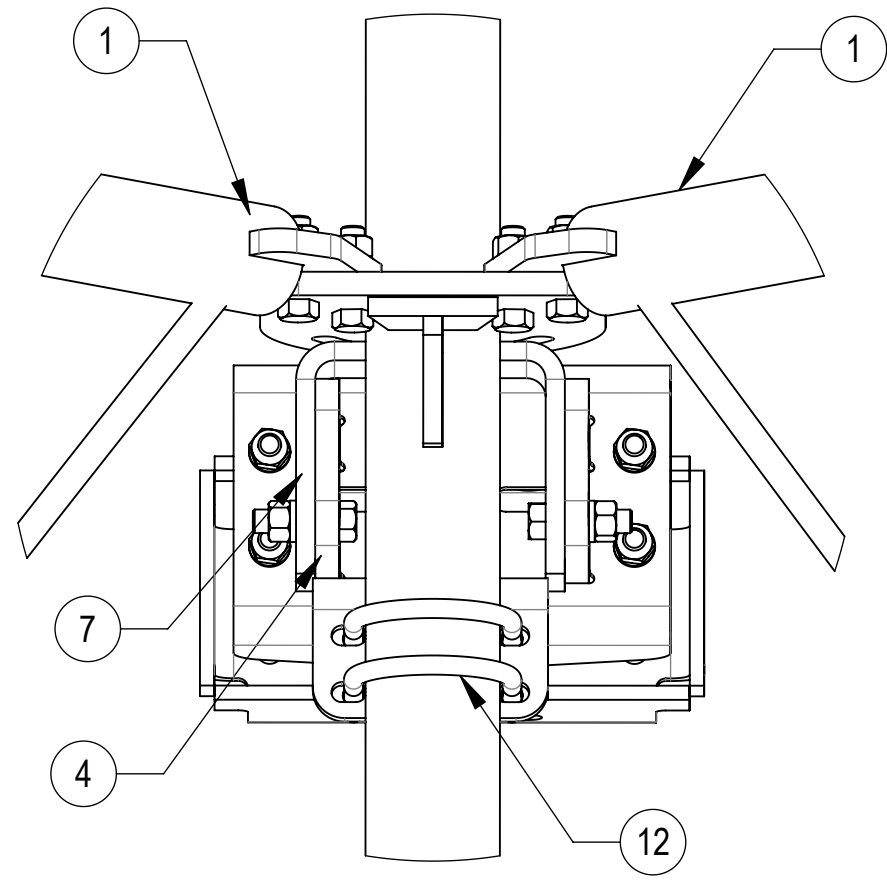
DETAIL D
SCALE 1 : 5

THE THREADED ROD CAN ONLY EXPOSE 4 TO 7 THREADS ON ONE SIDE OF THE BRACKET, WHICH IS TO PREVENT INTERFERENCE WITH THE SIDE BOLTS

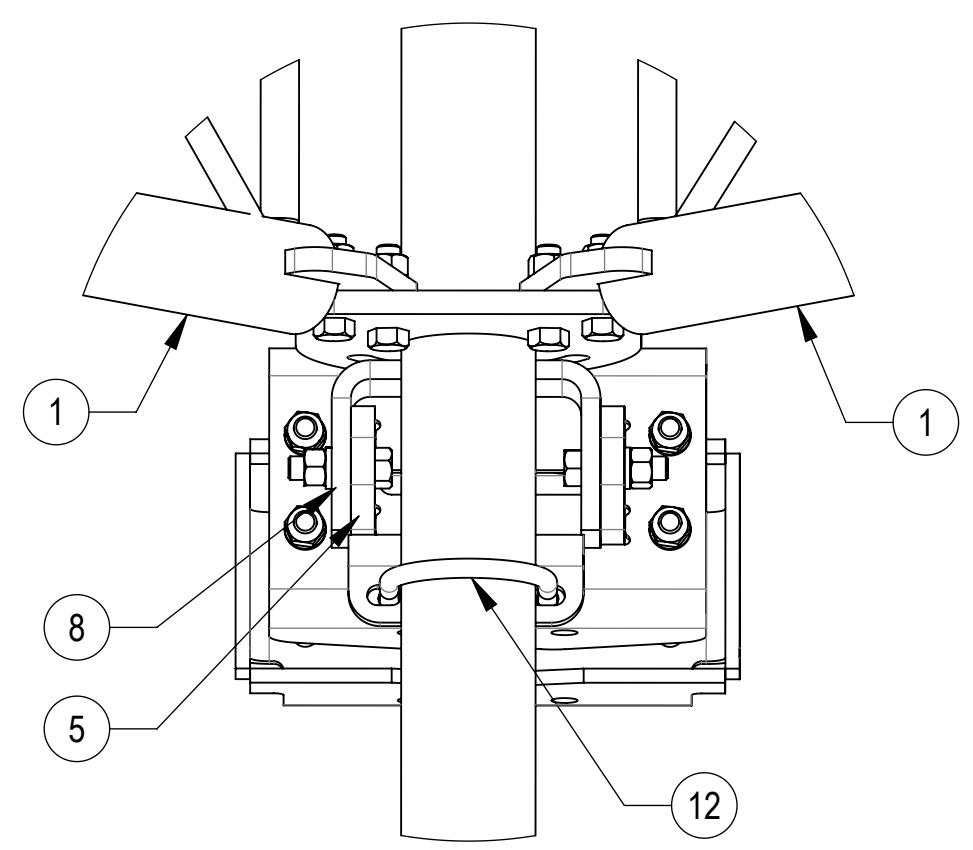


DETAIL E
SCALE 1 : 5

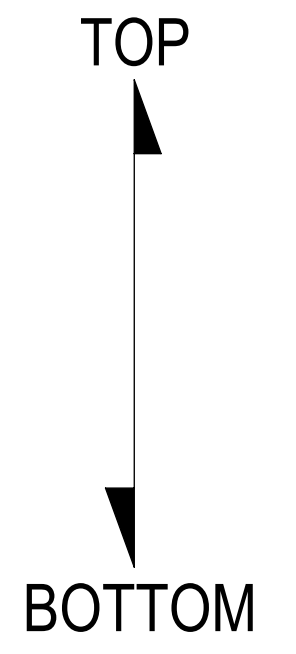
DO NOT OVER TIGHTEN, END OF POLE CAN BE DAMAGED



DETAIL ISO TOP ROTATED VIEW
SCALE 1 : 5



DETAIL ISO BOTTOM ROTATED VIEW
SCALE 1 : 5



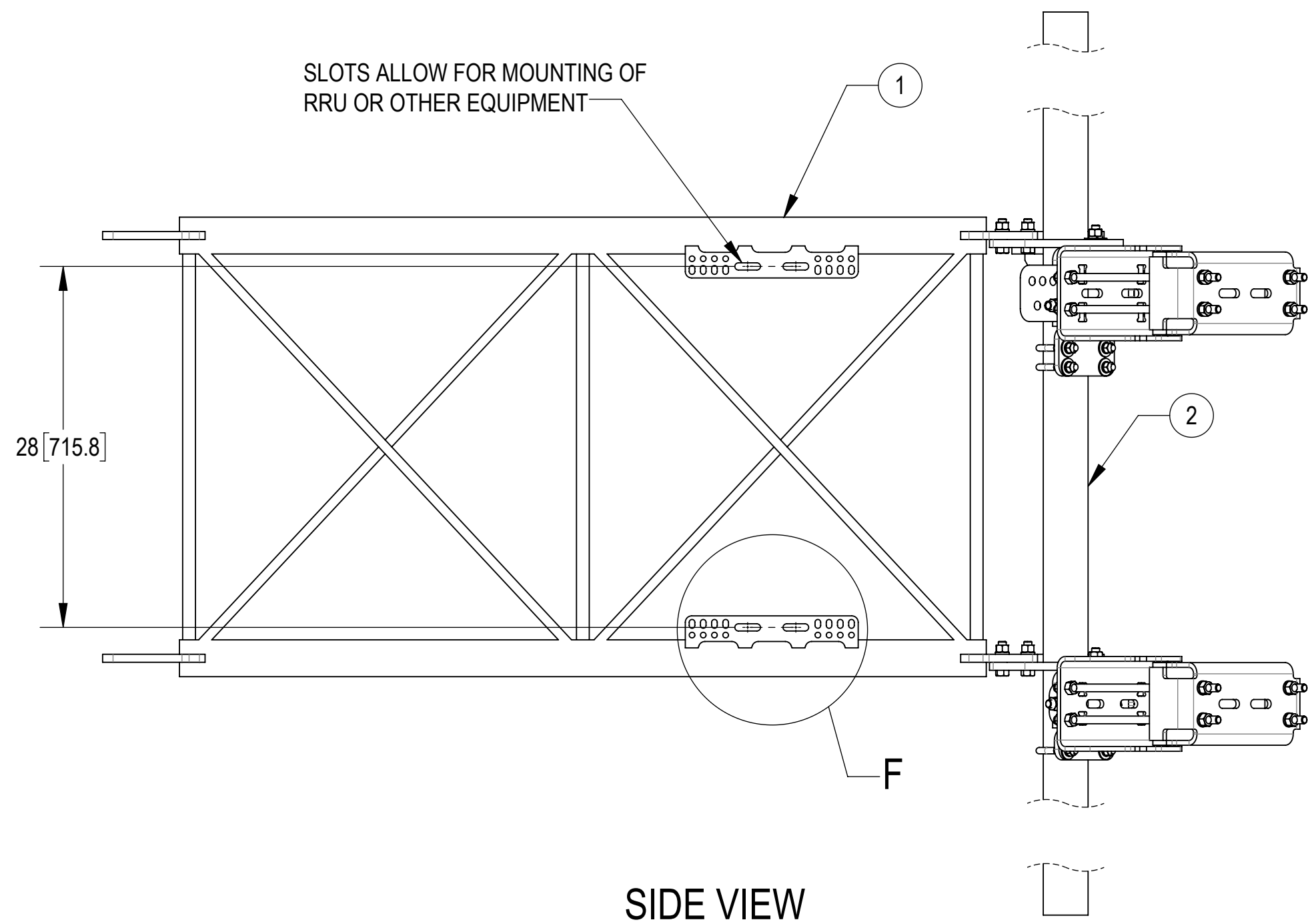
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TITLE SFG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:21	DOCUMENT NO. SFG23RHDXL		
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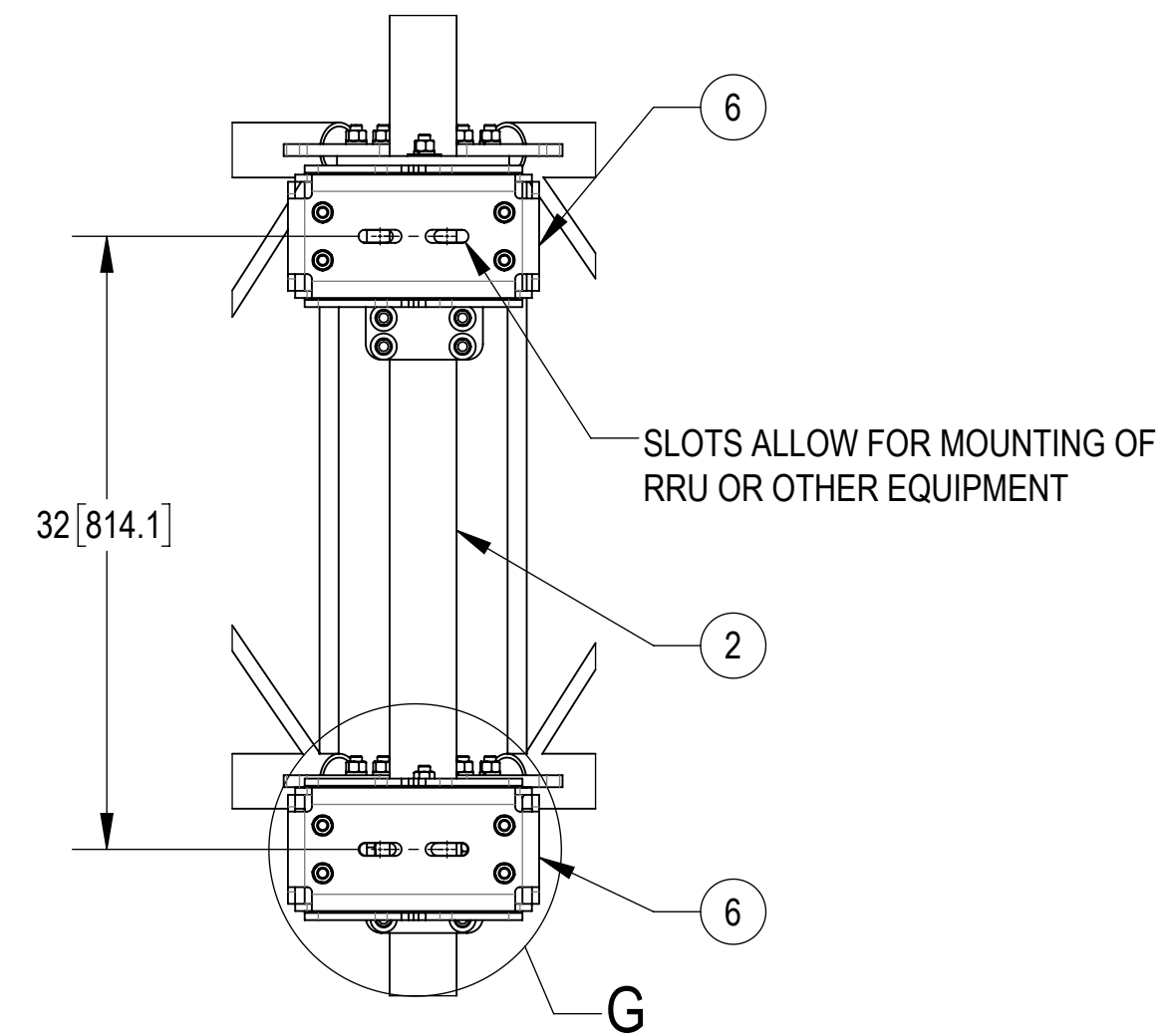
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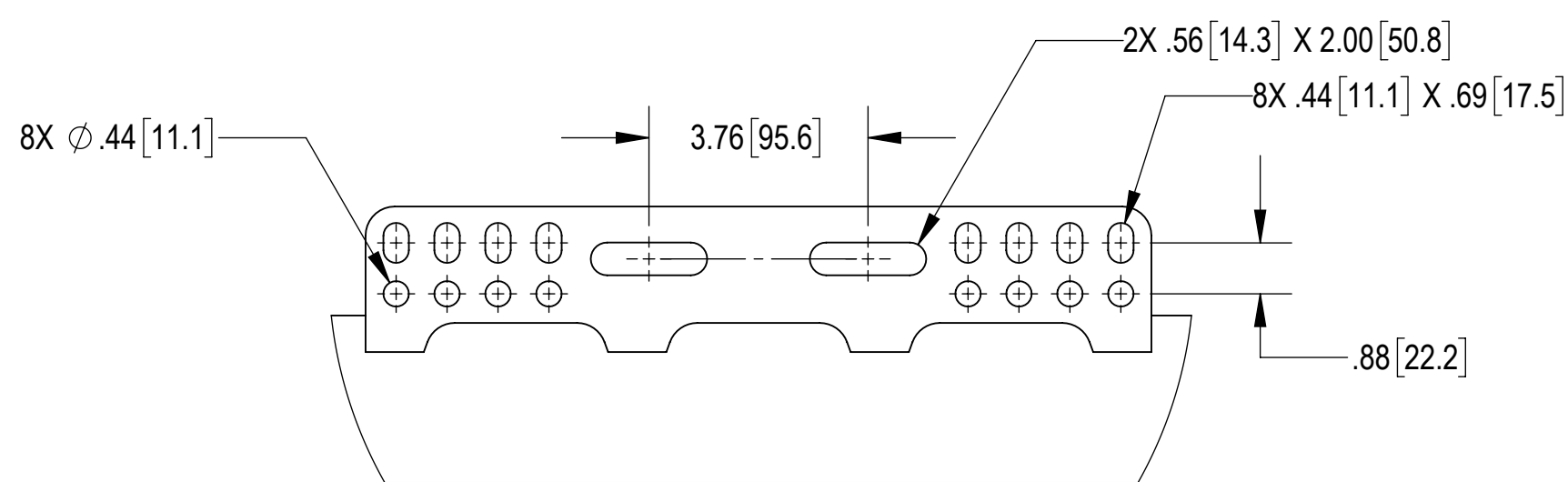
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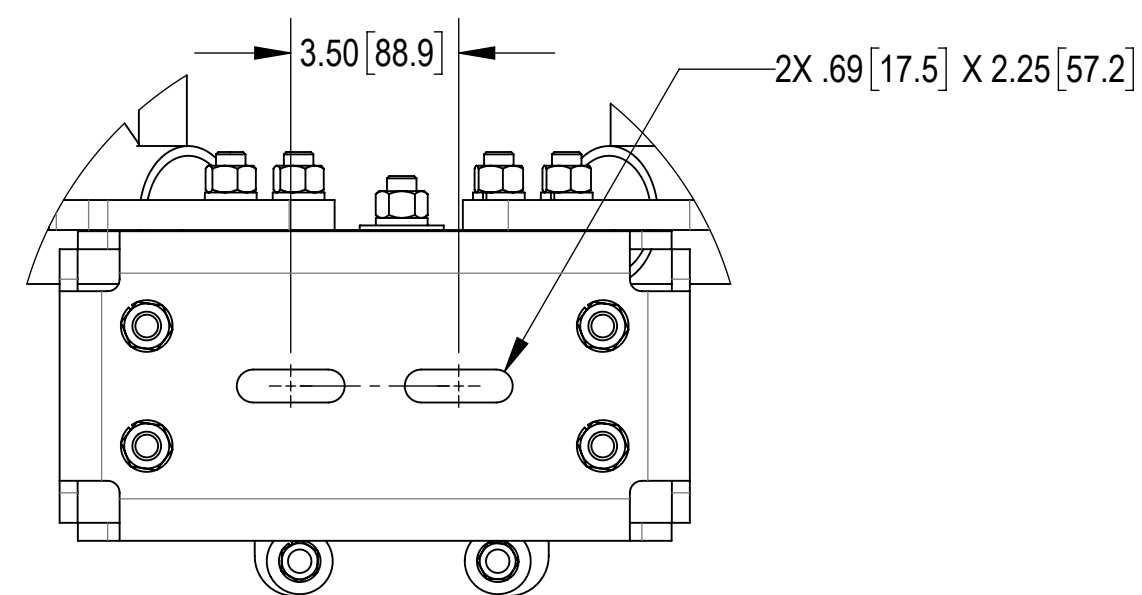
SIDE VIEW



BACK CROP VIEW



DETAIL F
SCALE 1 : 3



DETAIL G
SCALE 1 : 4

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SIZE C	SCALE 1:10	DOCUMENT NO. SFG23RHDXL		
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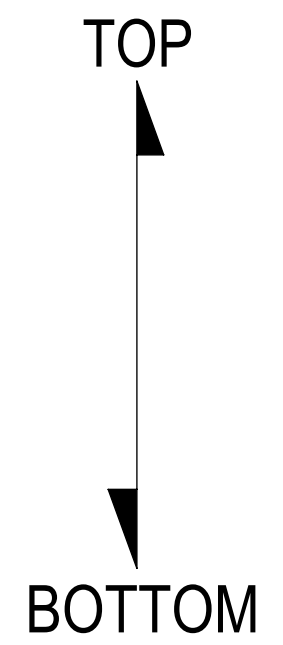
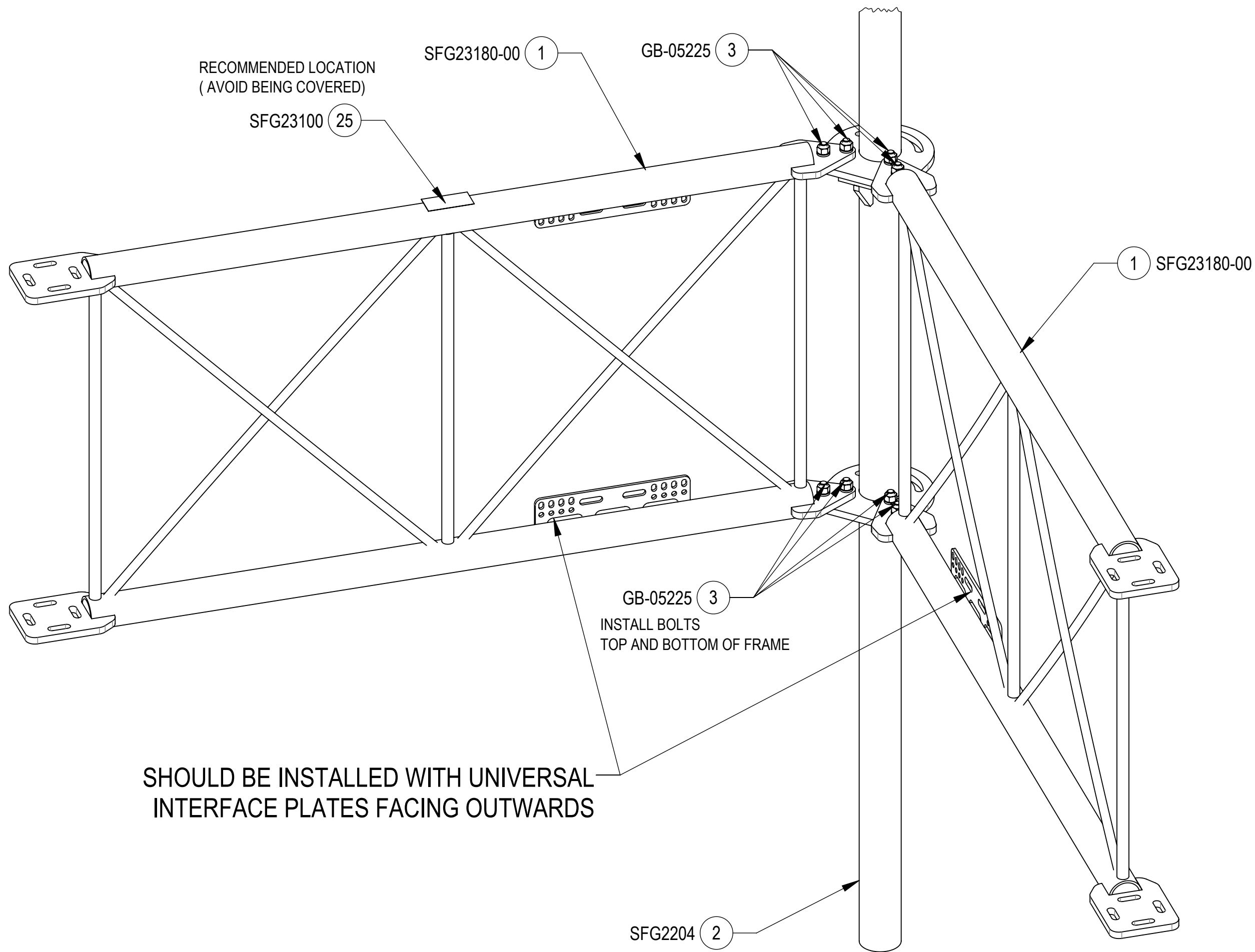
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

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INSTALLATION SEQUENCE - REFERENCE ONLY

STEP 1: ATTACH STANDOFF ARMS (SFG23180-00) TO BACK VERTICAL ARM MOUNT (SFG2204) USING BOLT KITS (GB-05225)
ATTACH LABEL (SFG23100) ON TOP OF STANDOFF ARMS(SFG23180-00) . (WIPE GALVANIZED SURFACE WITH ALCOHOL CLEANER BEFORE APPLYING LABEL.)



COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE SFG23RHDXL SECTOR FRAME SERIES				
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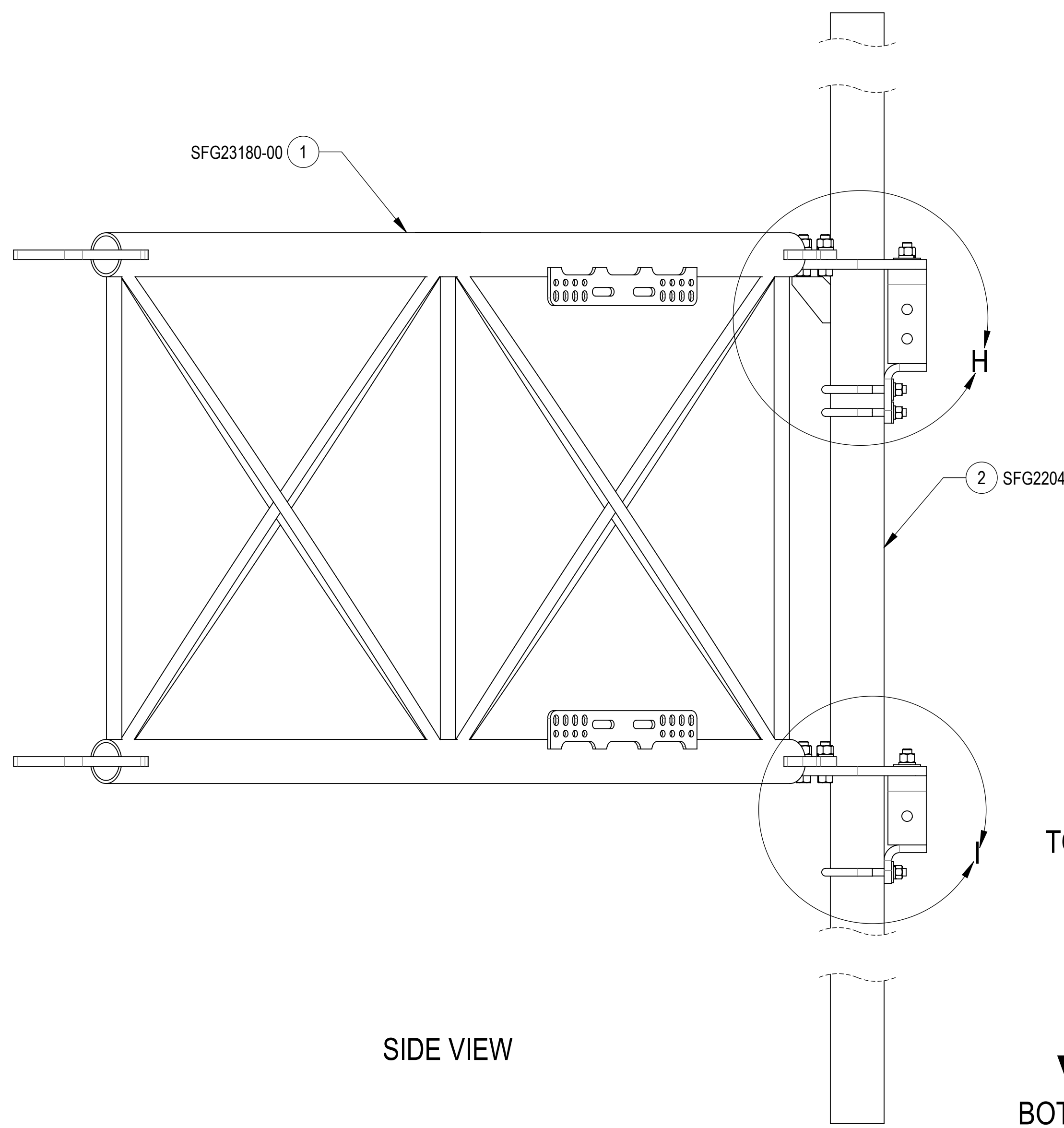
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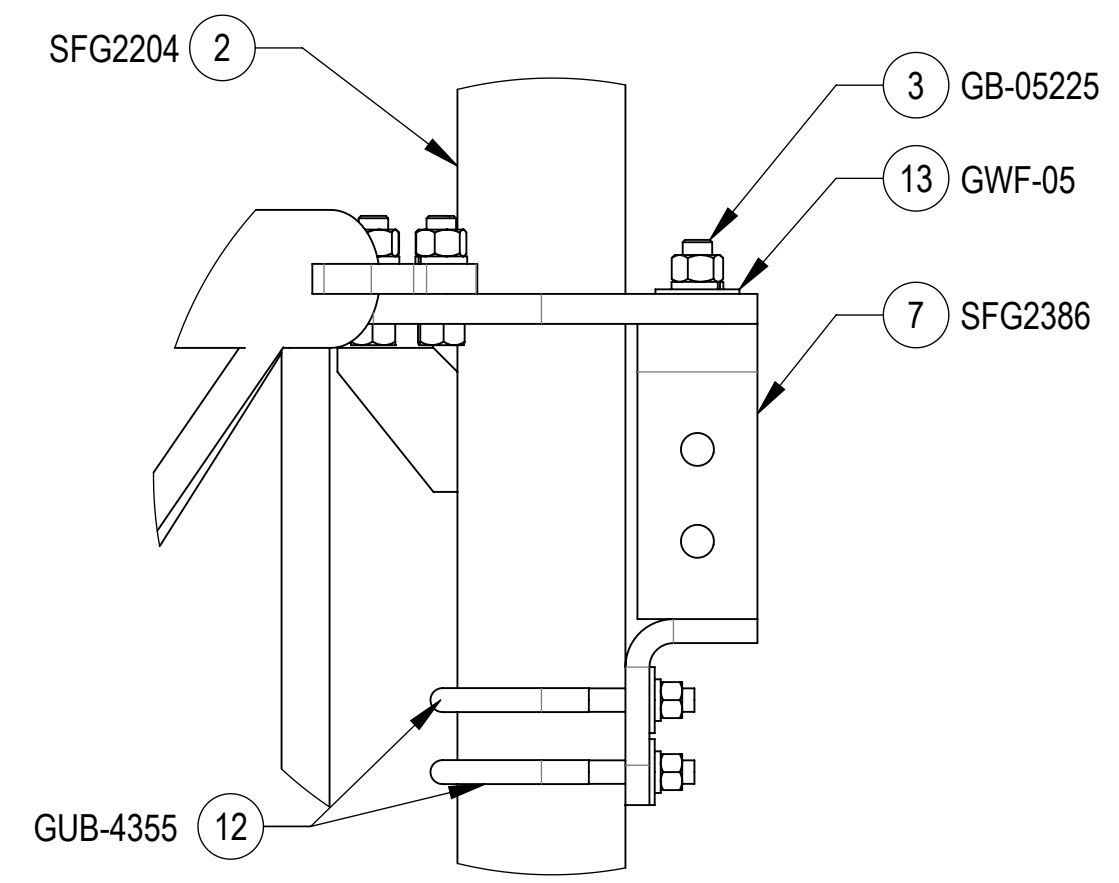
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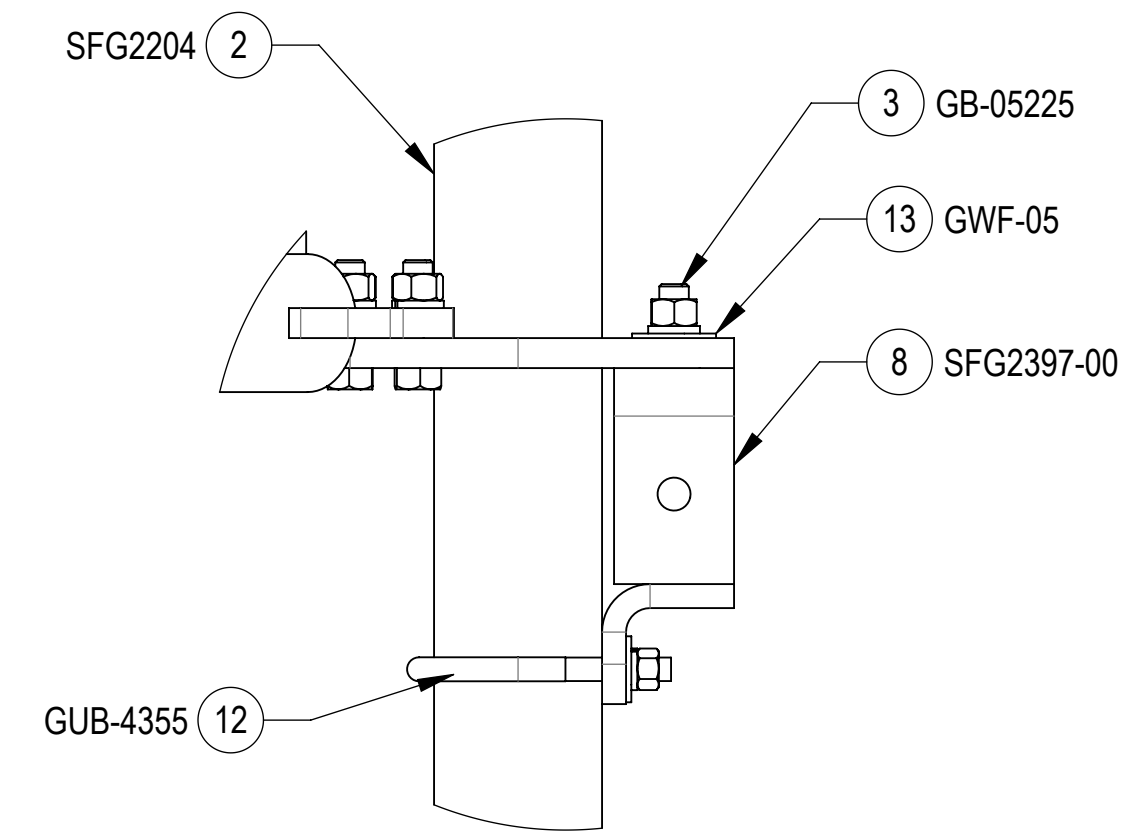
STEP 2: AT TOP, ATTACH AZIMUTH/TAPER BRACKET (SFG2386) TO BACK VERTICAL ARM MOUNT (SFG2204) USING BOLT KIT (GB-05225),
 FLAT WASHER (GWF-05) AND U-BOLT KITS (GUB-4355);
 AT BOTTOM, ATTACH AZIMUTH/TAPER BRACKET (SFG2387-00) TO BACK VERTICAL ARM MOUNT (SFG2204) USING BOLT KIT (GB-05225),
 FLAT WASHER (GWF-05) AND U-BOLT KIT (GUB-4355);



SIDE VIEW



DETAIL H
SCALE 1 : 4



DETAIL I
SCALE 1 : 4

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE SFG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:24	DOCUMENT NO. SFG23RHDXL		
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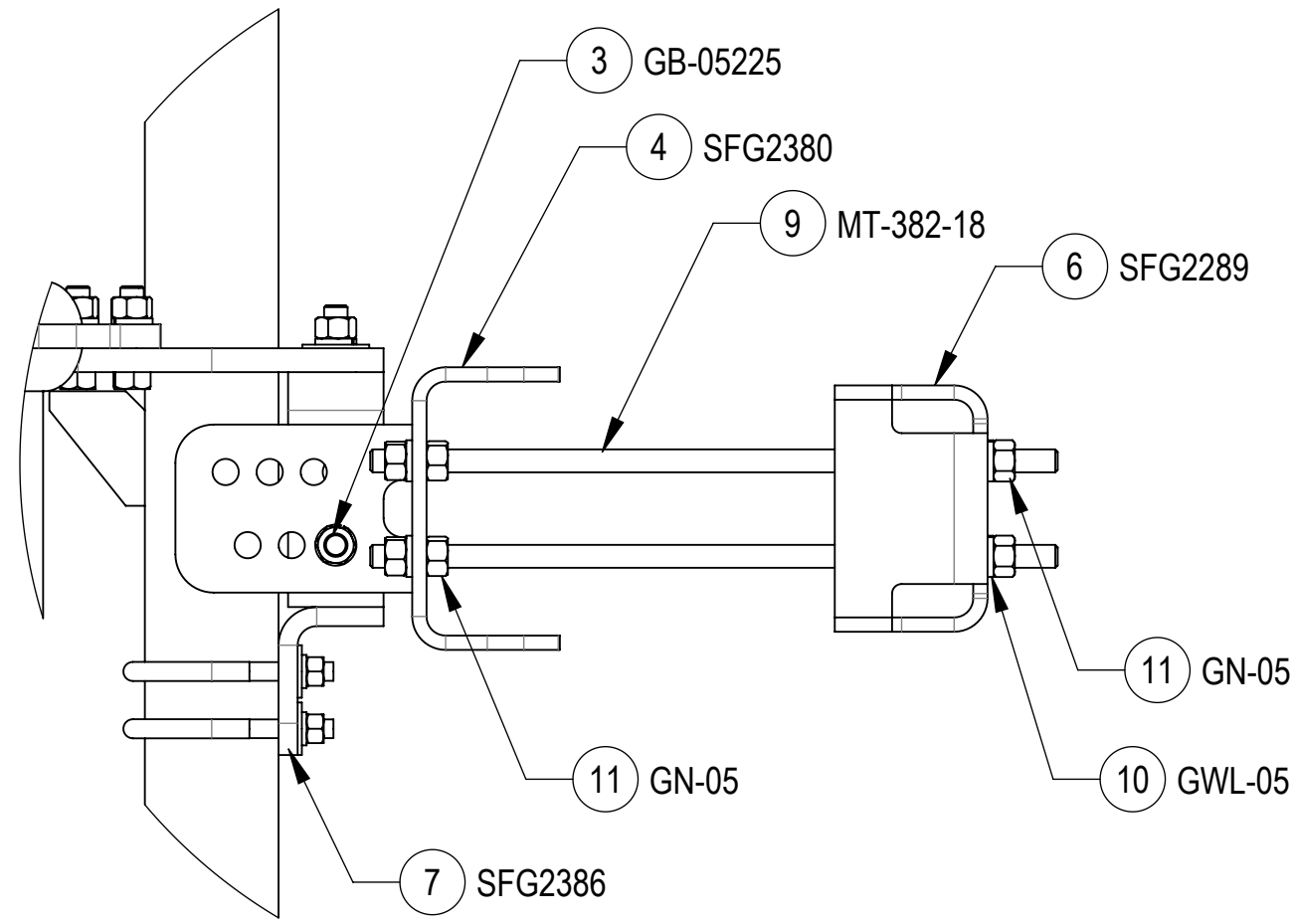
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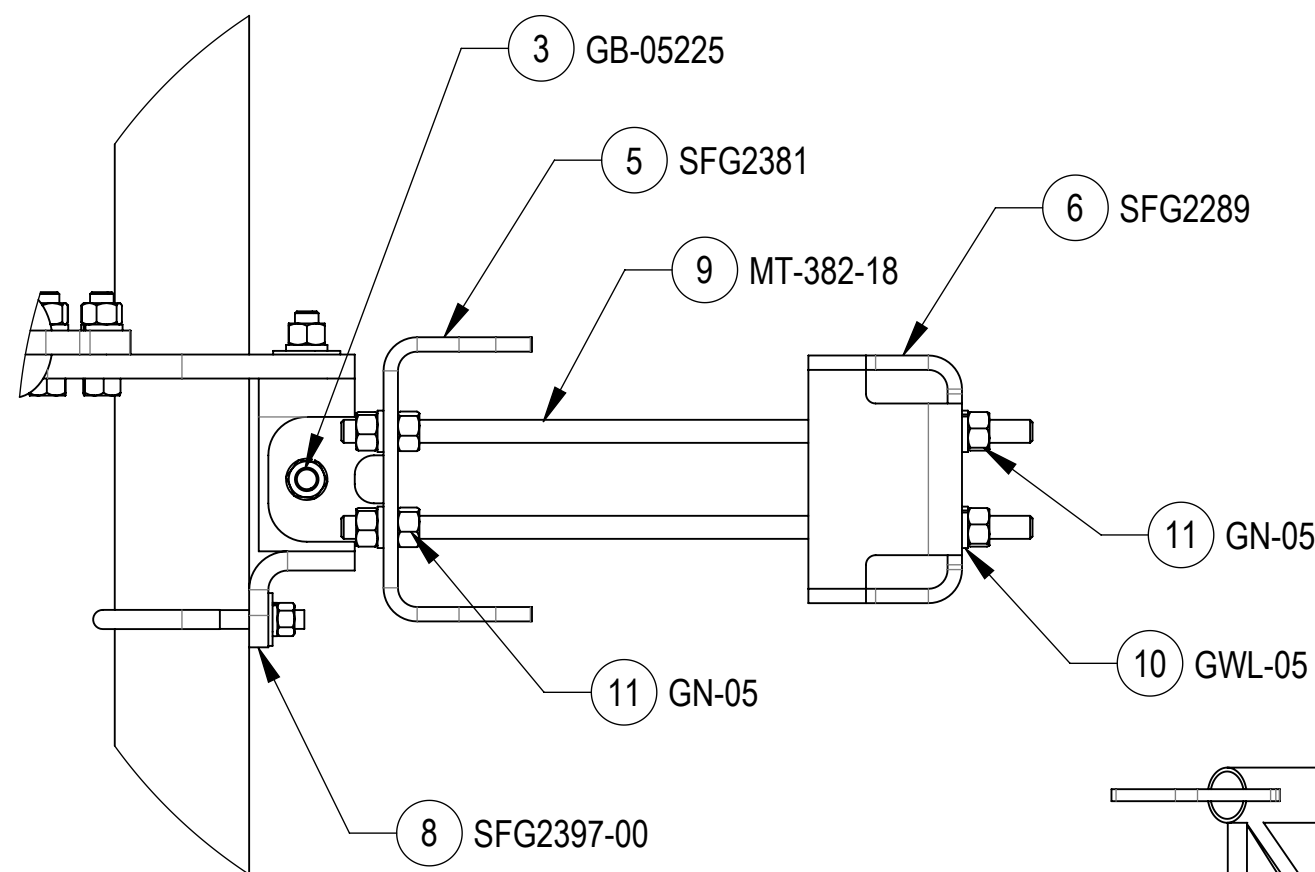
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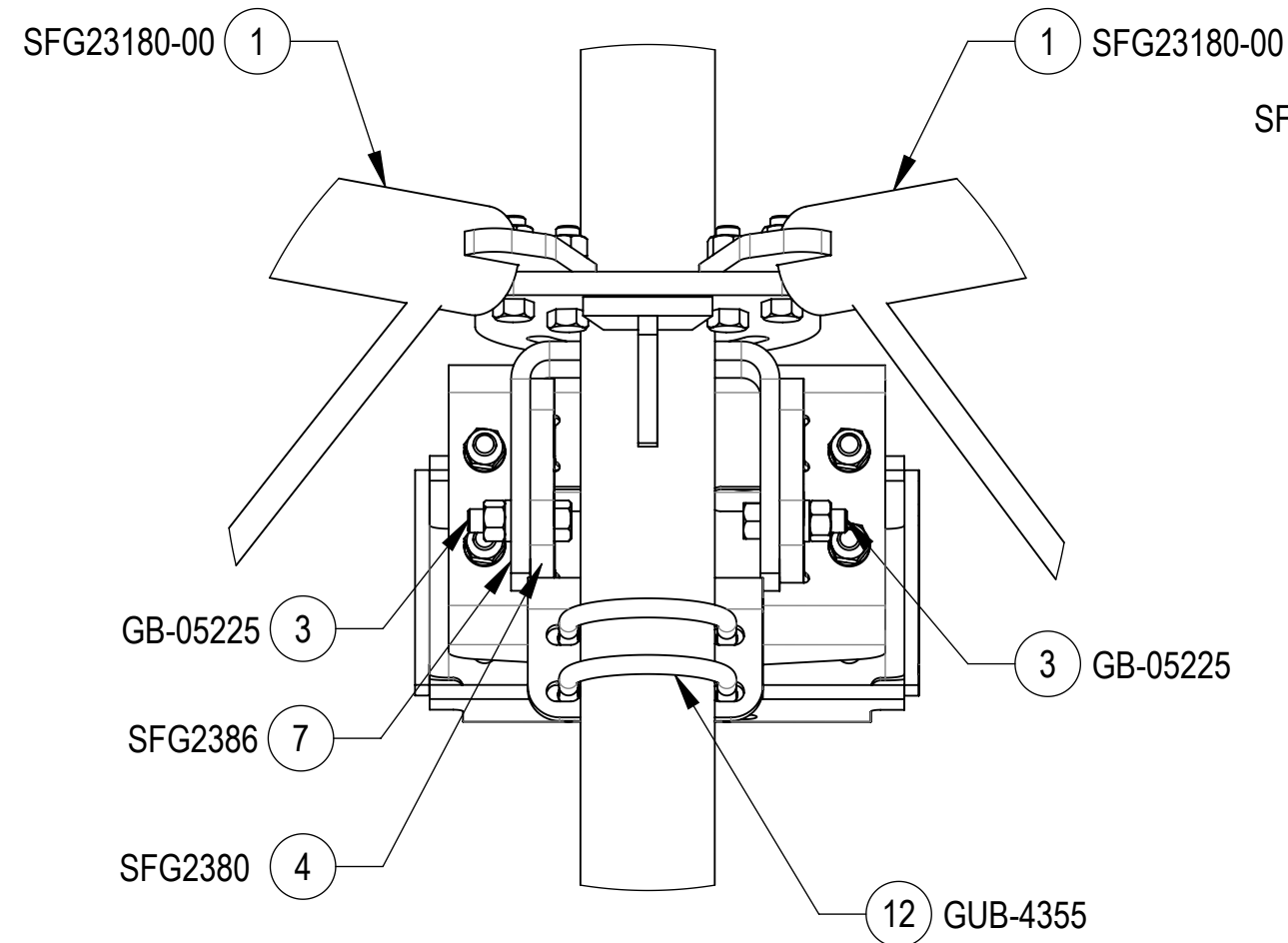
STEP 3: AT TOP, ATTACH TOP TAPER BRACKET (SFG2380) AZIMUTH/TAPER BRACKET (SFG2386) USING BOLTS KITS (GB-05225)
 AT BOTTOM, ATTACH LOWER TOWER LEG BRACKET (SFG2381) TO AZIMUTH/TAPER BRACKET (SFG2397-00) USING BOLTS KITS (GB-05225)



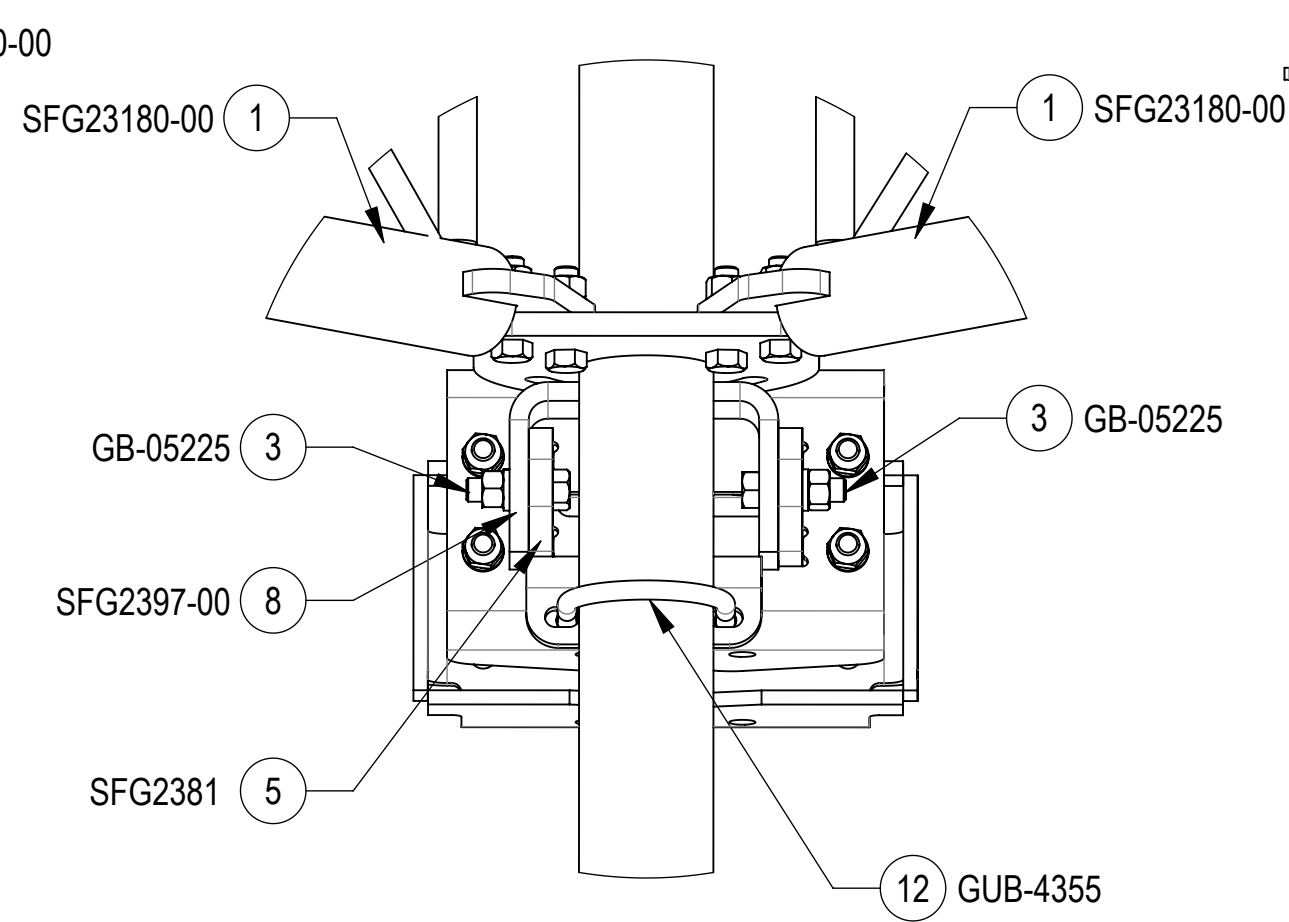
DETAIL J
SCALE 1 : 5



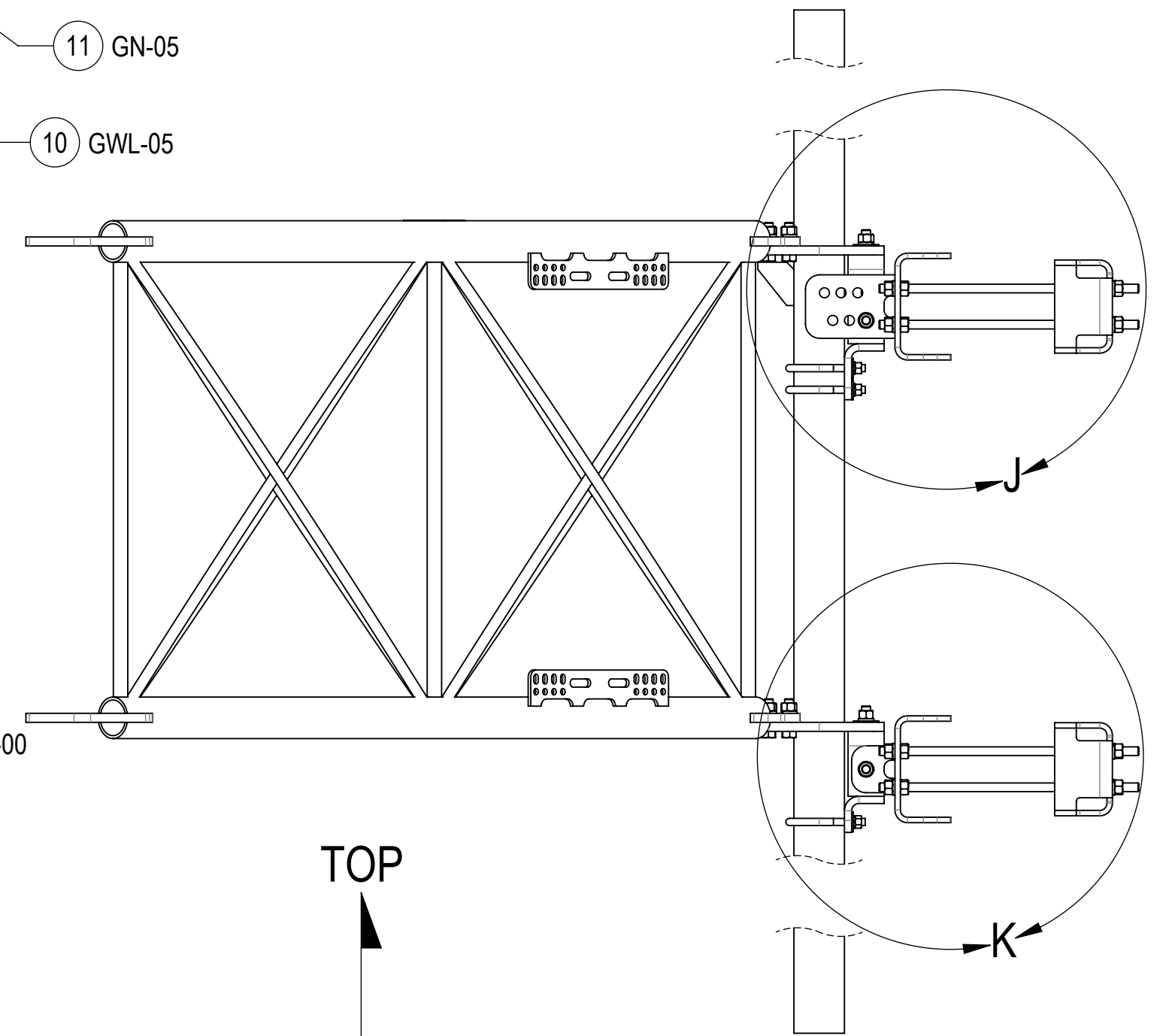
DETAIL K
SCALE 1 : 5



DETAIL ISO TOP ROTATED VIEW
SCALE 1 : 5



DETAIL ISO BOTTOM ROTATED VIEW
SCALE 1 : 5



TOP
↓
BOTTOM

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TITLE SFG23RHDXL SECTOR FRAME SERIES				
SIZE C	SCALE 1:24	DOCUMENT NO. SFG23RHDXL		
DRAWING		VERSION	STATUS	REVISION
		04	RE	E
				SHEET 9 OF 12

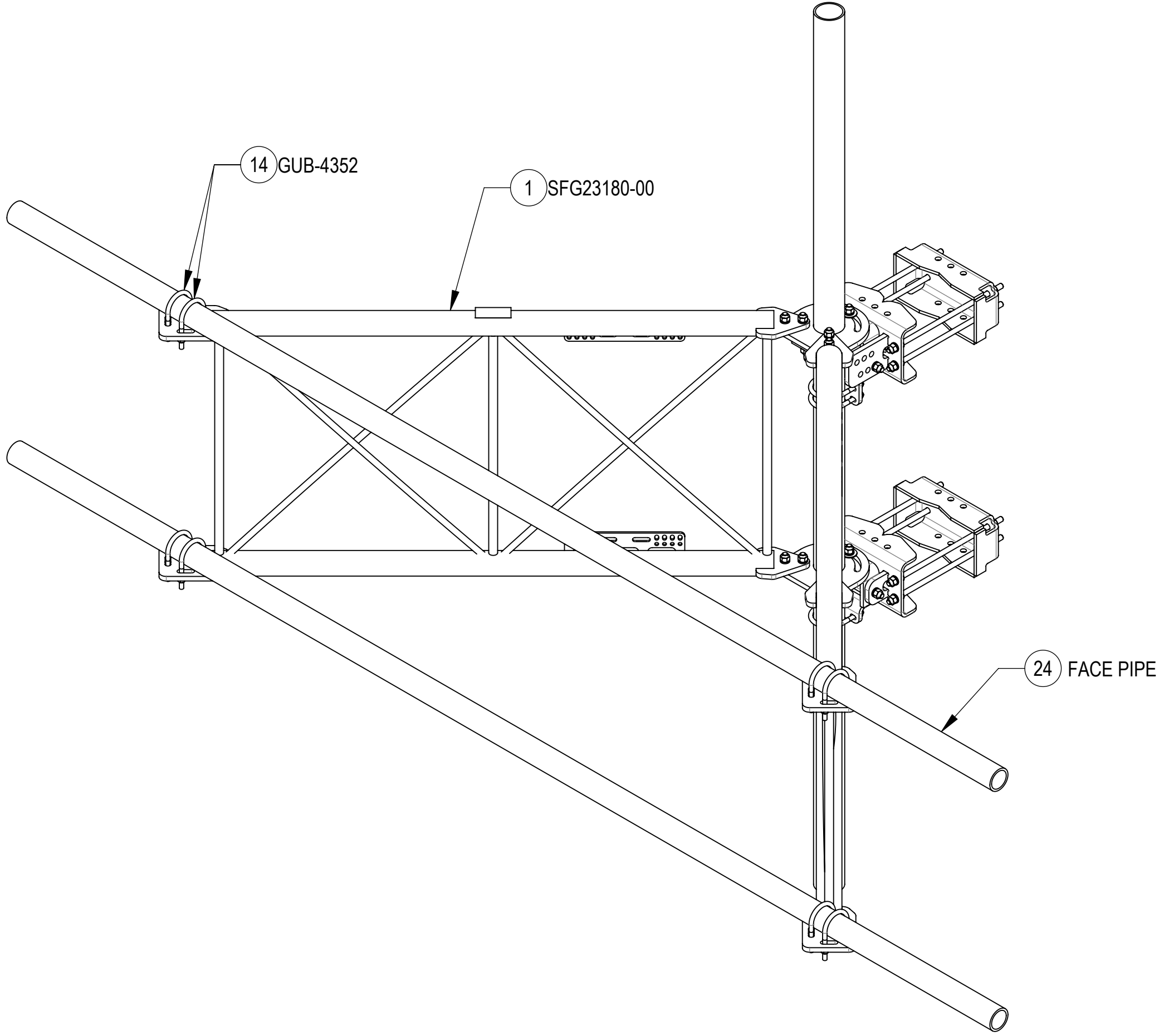
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STEP 4: ATTACH FACE PIPES TO STANDOFF ARMS (SFG23180-00) USING U-BOLTS (GUB-4352)



TOP
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 BOTTOM

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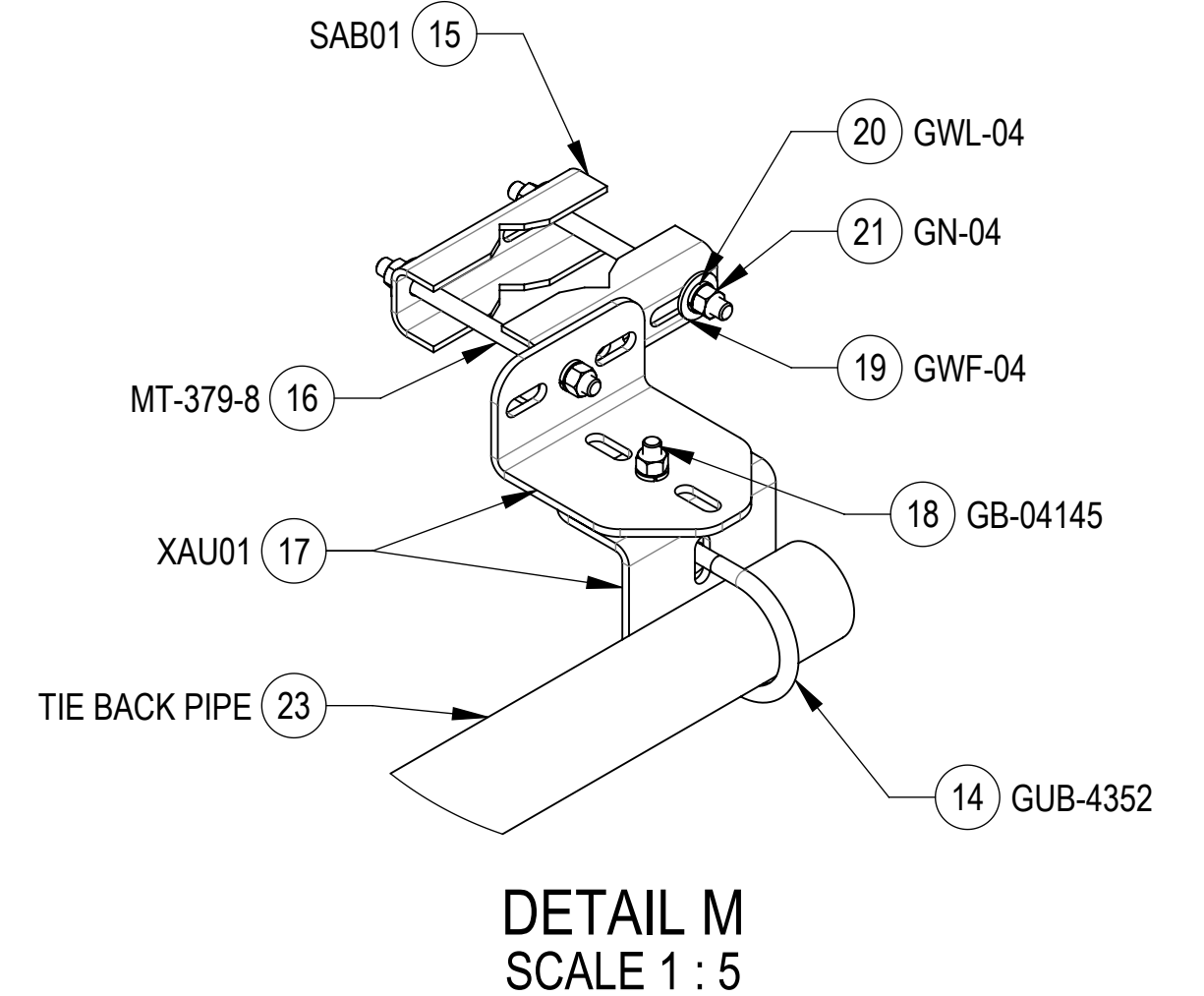
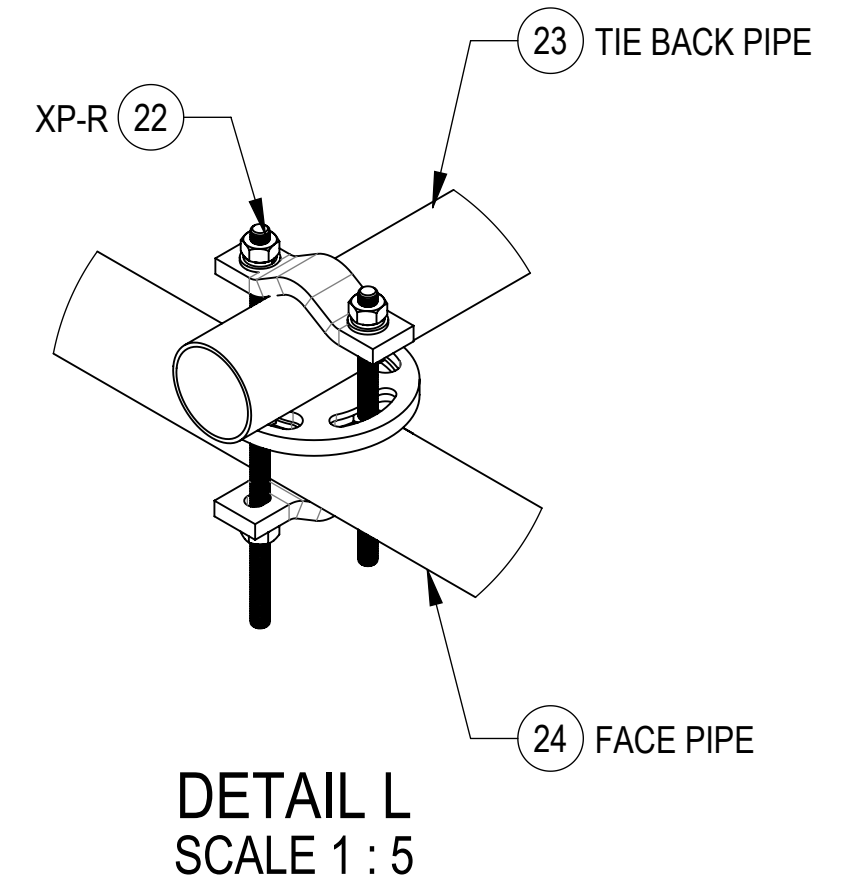
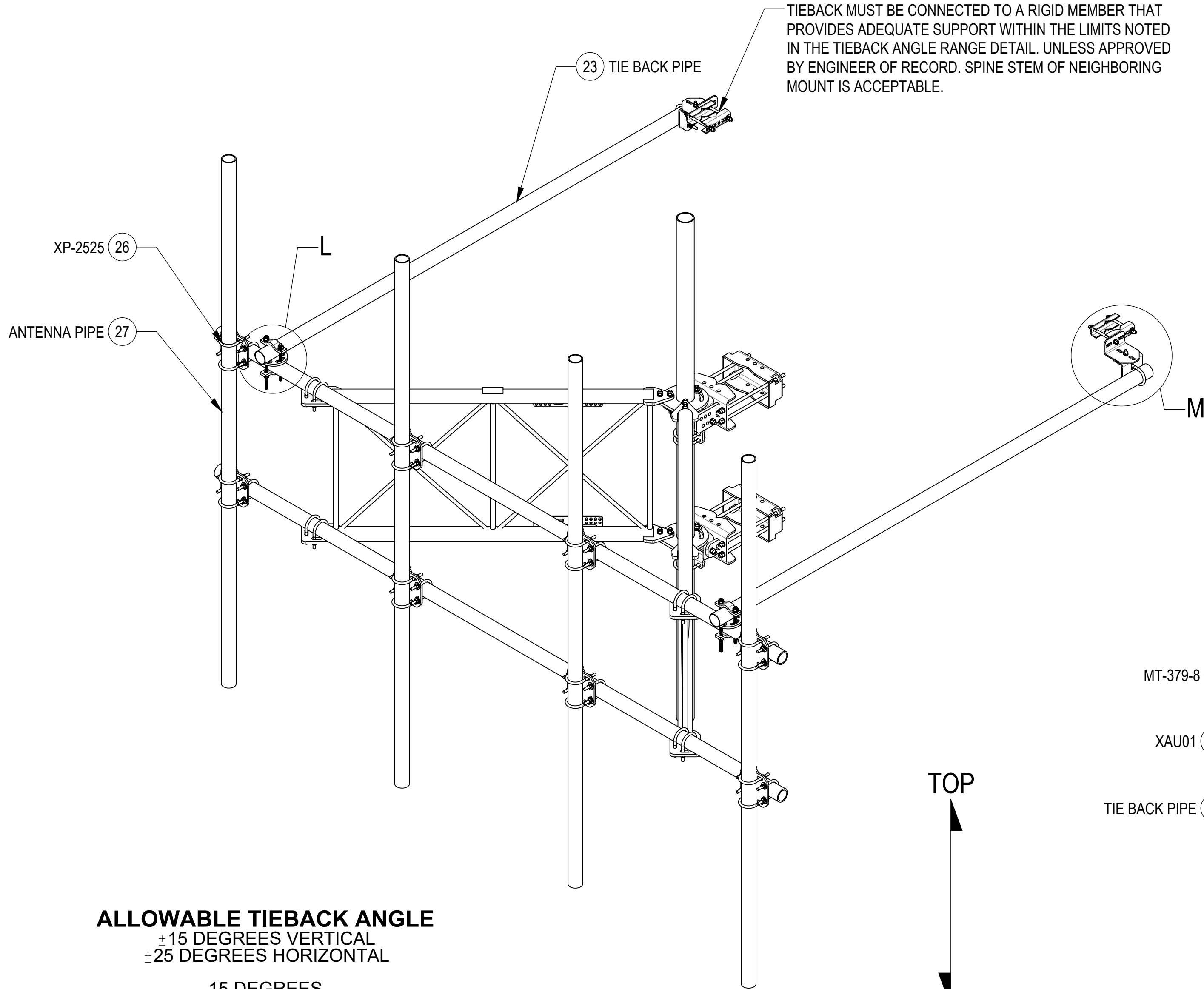
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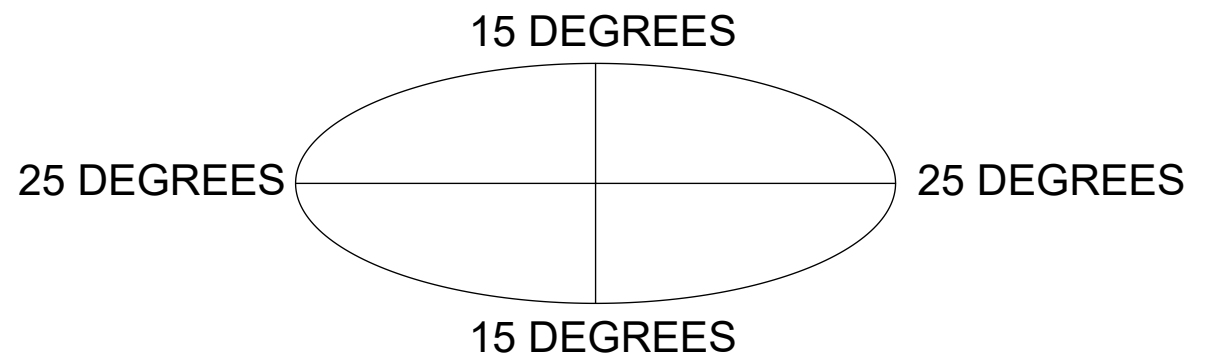
STEP 5: ATTACH ANTENNA PIPES TO FACE PIPES USING CROSSOVER PLATES KITS (XP-2525) .
 ATTACH TIE BACK PIPES (MT546120120) TO FACE PIPES USING ROUND CROSSOVER PLATES KITS (XP-R).

TIEBACK MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT WITHIN THE LIMITS NOTED IN THE TIEBACK ANGLE RANGE DETAIL. UNLESS APPROVED BY ENGINEER OF RECORD. SPINE STEM OF NEIGHBORING MOUNT IS ACCEPTABLE.



ALLOWABLE TIEBACK ANGLE

±15 DEGREES VERTICAL
 ±25 DEGREES HORIZONTAL



TOP
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 BOTTOM

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SIZE C	SCALE 1:24	DOCUMENT NO. SFG23RHDXL		
DRAWING		REVISION		SHEET
VERSION 04	STATUS RE	REVISION E	11 OF 12	

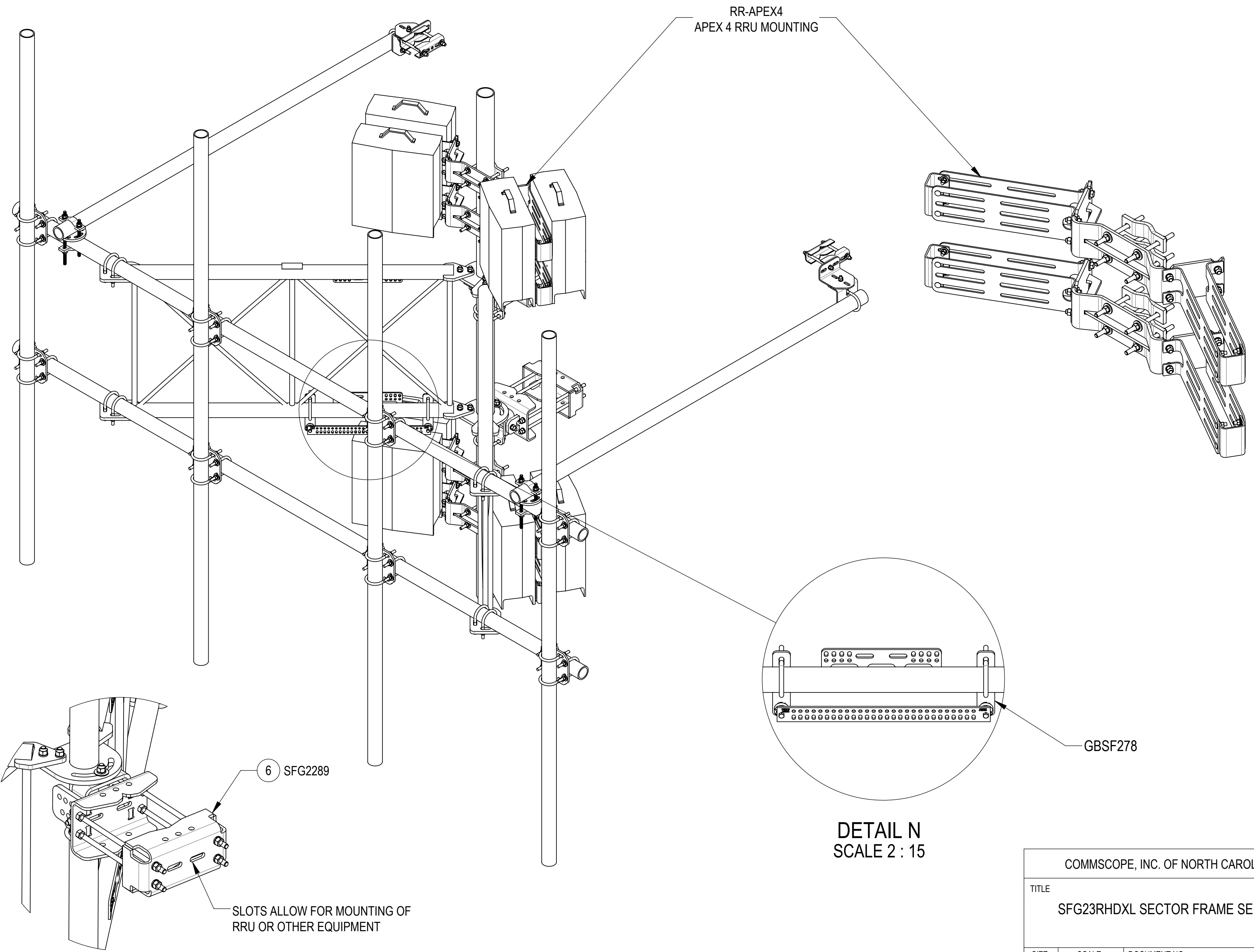
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ACCESSORIES ORDERED SEPARATELY:



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SIZE C	SCALE 1:12	DOCUMENT NO. SFG23RHDXL		
		DRAWING		SHEET
		VERSION 04	STATUS RE	REVISION E
				12 OF 12

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