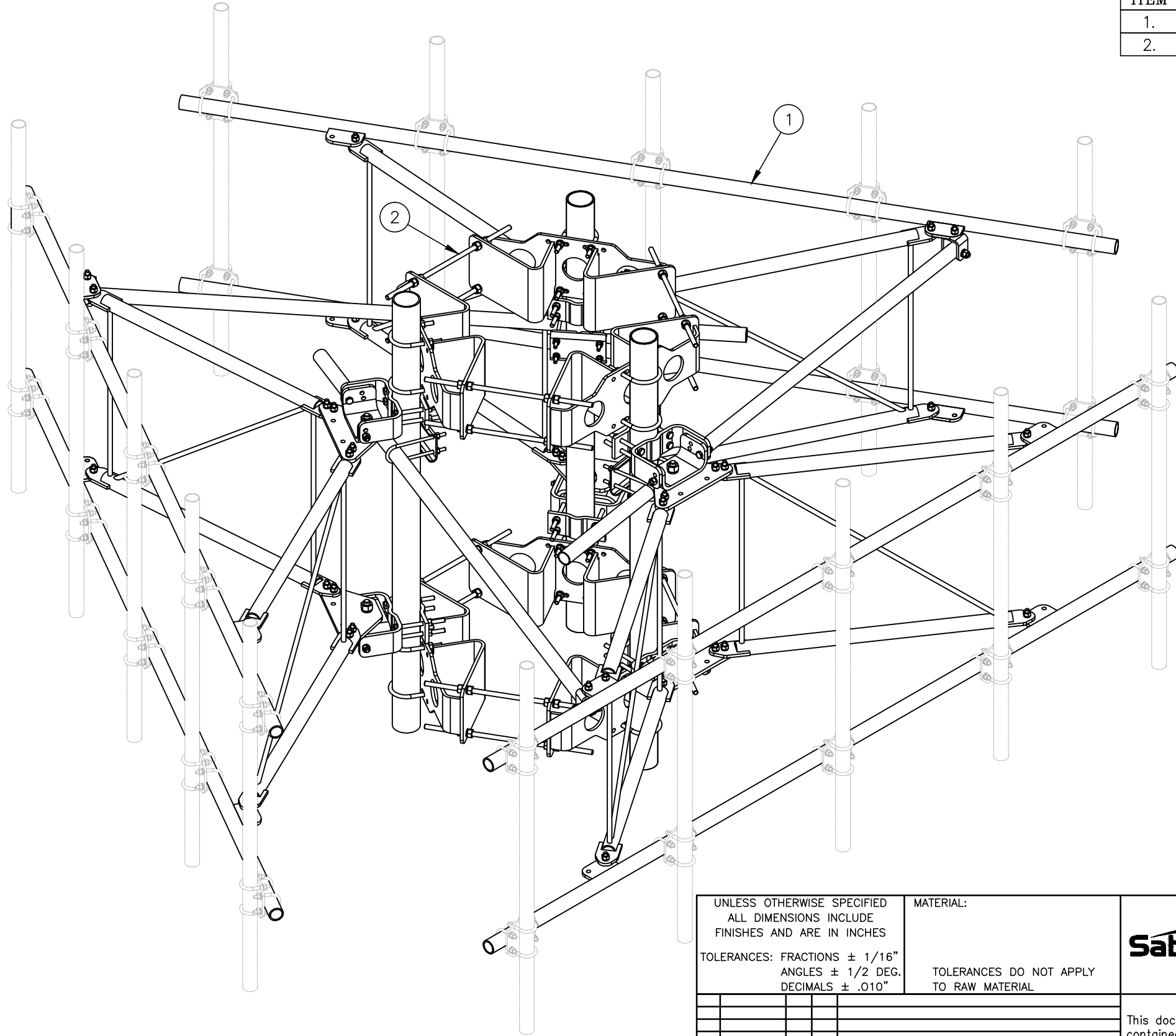




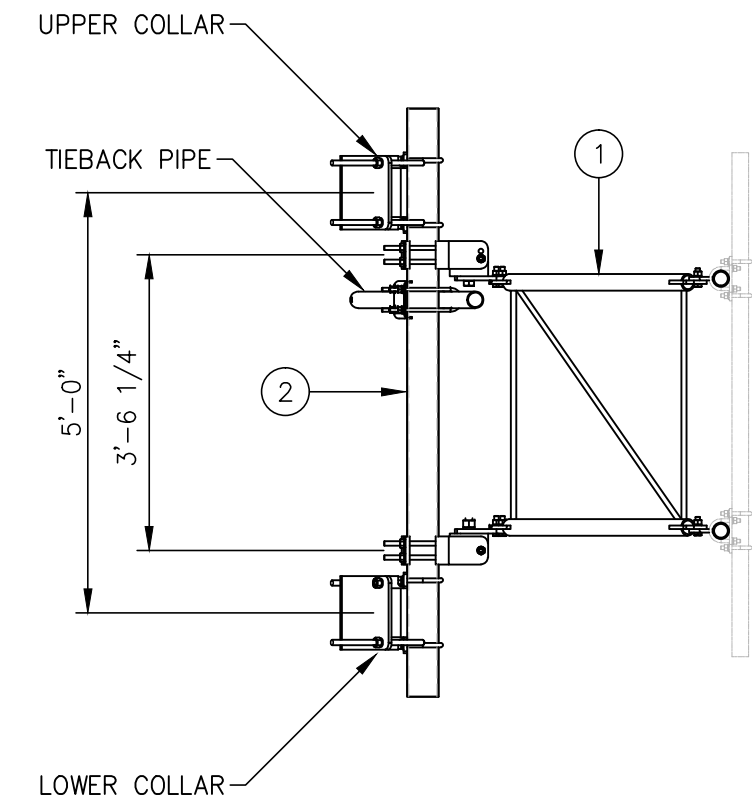
C10857802 12' HD V-BOOM ASSEMBLIES W/TIEBACK

ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	3	C10857001C	12' HD V-BOOM ASSEMBLY W/TIE BACK	1386
2.	1	C10899055	4 1/2" O.D. MONOPOLE PIPE MOUNT ASSEMBLY	994
			TOTAL WEIGHT	2380



NOTES:

1. MOUNTING PIPES & CROSSOVER PLATE KITS MUST BE PURCHASED SEPARATELY.
2. SEE DRAWING C10857001C FOR 12' V-BOOM ASSEMBLY.
3. SEE DRAWING C10899055 FOR 4 1/2" O.D. MONOPOLE PIPE MOUNT ASSEMBLY.



VIEW A-A  
FROM PAGE 2

ISOMETRIC VIEW

UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS INCLUDE  
FINISHES AND ARE IN INCHES  
  
TOLERANCES: FRACTIONS ± 1/16"  
ANGLES ± 1/2 DEG.  
DECIMALS ± .010"

MATERIAL:  
  
TOLERANCES DO NOT APPLY  
TO RAW MATERIAL

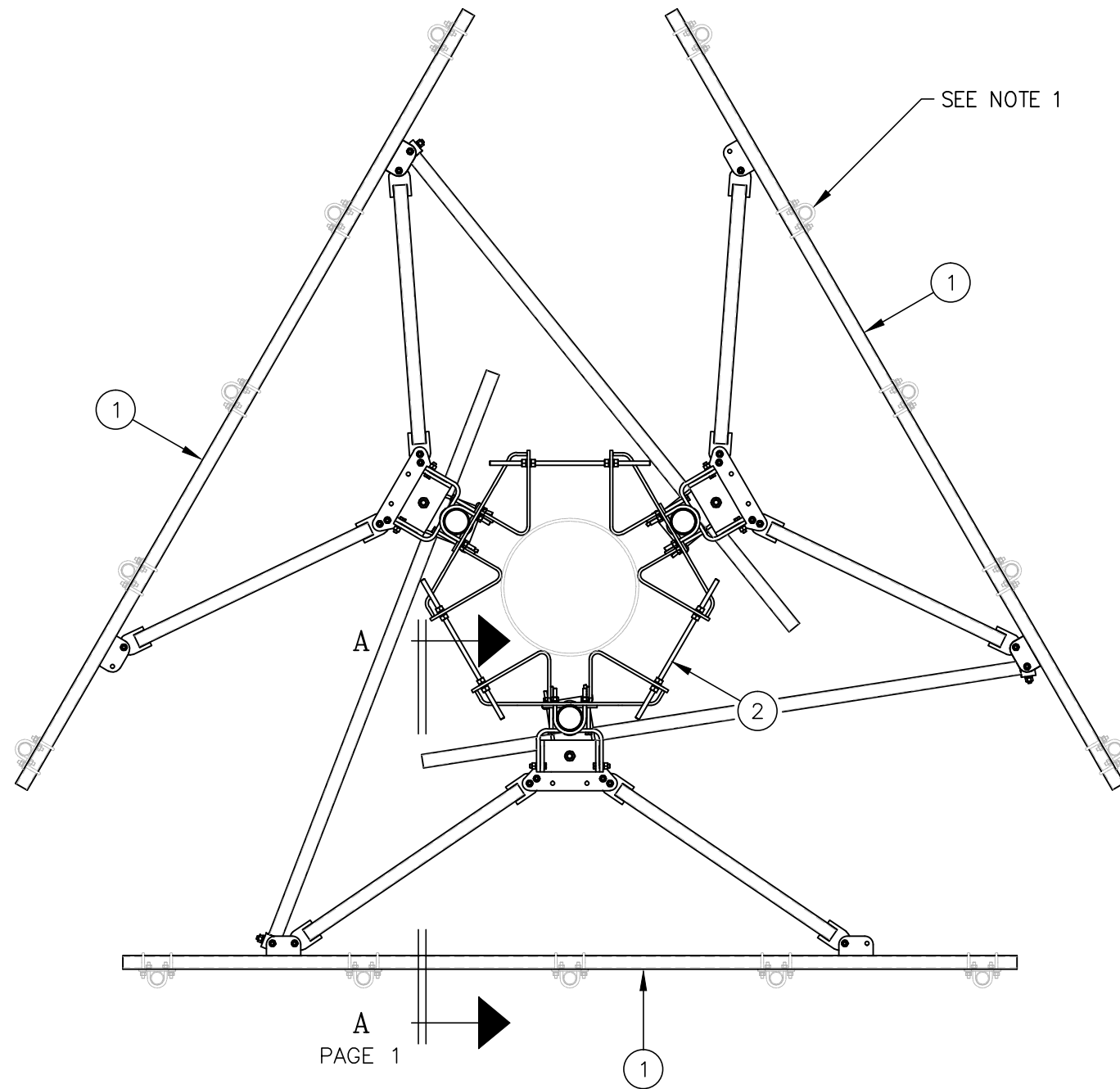


12' HD V-BOOM ASSEMBLIES W/TIEBACK  
(3' STANDOFF)  
ON MONOPOLE PIPE MOUNT ASSEMBLY  
W/NO ANTENNA MOUNTING PIPES

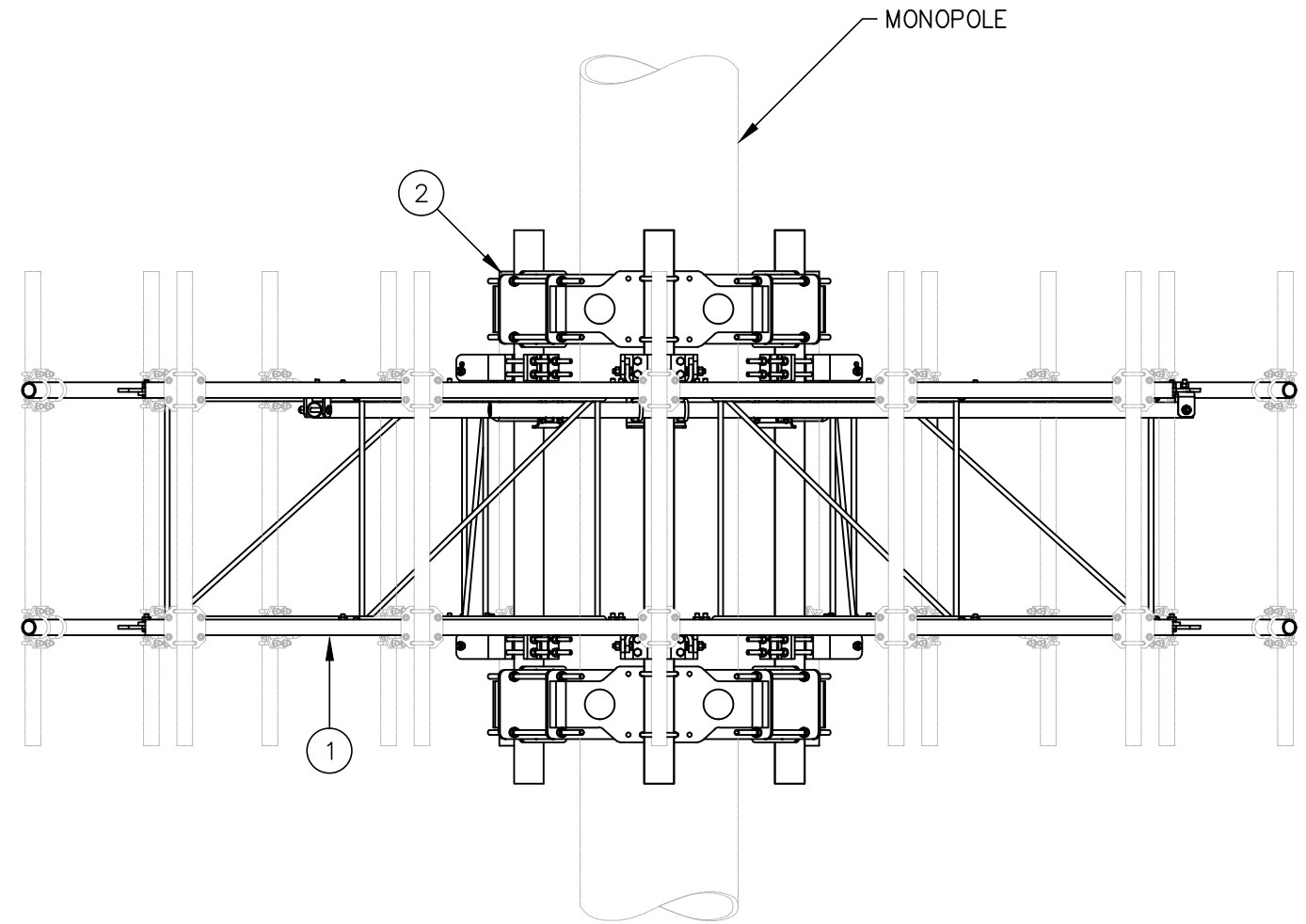
REV	DATE	DRW	CHK	DESCRIPTION

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DATE	9/24/18	SIZE	B	DRAWING NO.	C10857802	REV	0
DRAWN BY	WRF			SCALE	None	PAGE	
CHECKED BY	WMN					1 OF 2	



PLAN VIEW



ELEVATION VIEW

UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS INCLUDE  
FINISHES AND ARE IN INCHES

TOLERANCES: FRACTIONS  $\pm 1/16"$   
ANGLES  $\pm 1/2$  DEG.  
DECIMALS  $\pm .010"$

MATERIAL:

TOLERANCES DO NOT APPLY  
TO RAW MATERIAL



12' HD V-BOOM ASSEMBLIES W/TIEBACK  
(3' STANDOFF)  
ON MONOPOLE PIPE MOUNT ASSEMBLY  
W/NO ANTENNA MOUNTING PIPES

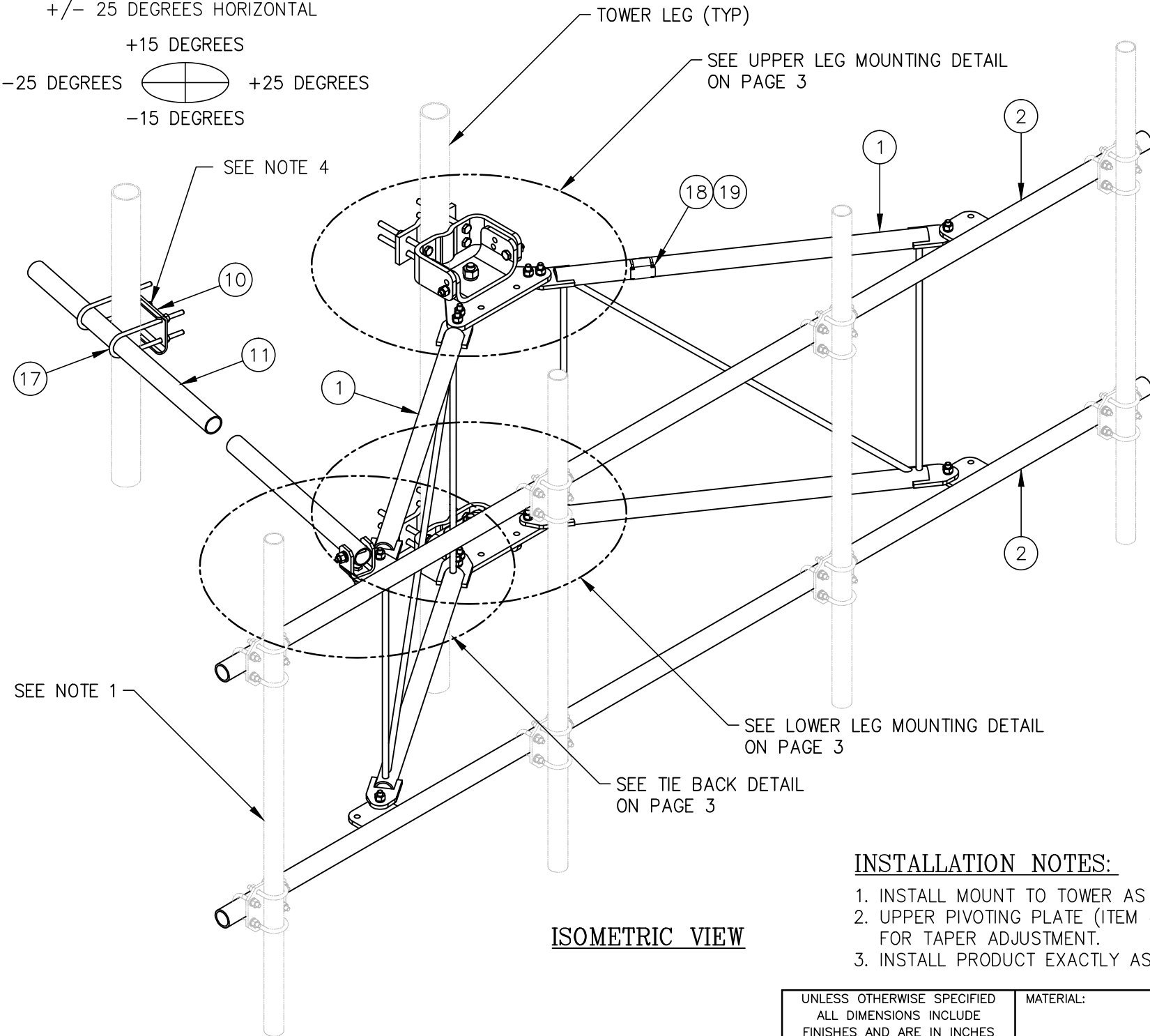
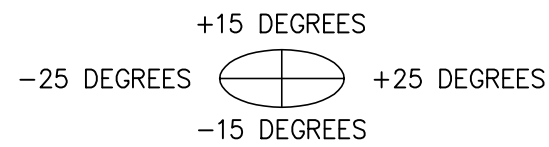
REV	DATE	DRW	CHK	DESCRIPTION

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DATE	09/24/18	SIZE	B	DRAWING NO.	C10857802	REV	0
DRAWN BY	WRF	SCALE		PAGE		None	
CHECKED BY	WMN	None		2 OF 2		None	

**TIEBACK ANGLE RANGE DETAIL**

+/- 15 DEGREES VERTICAL  
 +/- 25 DEGREES HORIZONTAL



**ISOMETRIC VIEW**

**NOTES:**

1. MOUNTING PIPES & CROSSOVER PLATE KITS MUST BE PURCHASED SEPARATELY.
2. QUANTITIES SHOWN IN LISTS OF MATERIAL ARE FOR ONE (1) V-BOOM ONLY.
3. THIS V-BOOM WILL MOUNT TO THE FOLLOWING: 1 1/2"φ TO 5 9/16"φ ROUND LEG.
4. TIEBACK MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT WITHIN THE LIMITS NOTED ABOVE IN THE TIEBACK ANGLE RANGE DETAIL UNLESS APPROVED BY THE ENGINEER OF RECORD.

**INSTALLATION NOTES:**

1. INSTALL MOUNT TO TOWER AS SHOWN, SO THAT WELDED STANDOFF DIAGONAL IS SLOPING DOWNWARD FROM TOWER END TO FACE PIPE END.
2. UPPER PIVOTING PLATE (ITEM 4) HAS THREE HOLES ON EACH SIDE AND UPPER LEG CLAMP PLATE (ITEM 5) HAS TWO HOLES ON EACH SIDE FOR TAPER ADJUSTMENT.
3. INSTALL PRODUCT EXACTLY AS SHOWN IN DRAWING, WITH ALL BOLTS FACING UPWARDS.

**C10857001C 12' HD V-BOOM ASSEMBLY W/TIEBACK**

ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	2	CW01222	WELDMENT, STANDOFF ARM	126
2.	2	CW01223	WELDMENT, FACE PIPE	147
3.	2	CS03109	PLATE, ROTATING	34
4.	1	CS03110	PLATE, PIVOTING (UPPER)	16
5.	1	CS03111	PLATE, LEG CLAMP (UPPER)	17
6.	1	CS03112	PLATE, PIVOTING (LOWER)	14
7.	1	CS03113	PLATE, LEG CLAMP (LOWER)	17
8.	2	CS03114	PLATE, LEG CLAMP (BACK)	14
9.	1	CS00098	PLATE, TIE BACK SWIVEL	3
10.	1	CS03285	PLATE, TIE BACK CLAMP	4
11.	1	CS03333	PIPE, TIE BACK	38
12.	2	C40026073	BOLT ASSEMBLY, 1 φ X 3 A325	4
13.	8	C40140004	BOLT ASSEMBLY, 5/8 φ X 8 A307	13
14.	1	C40026033	BOLT ASSEMBLY, 5/8 φ X 4 1/2 A325	1
15.	12	C40026025	BOLT ASSEMBLY, 5/8 φ X 2 1/2 A325	6
16.	5	C40026024	BOLT ASSEMBLY, 5/8 φ X 2 1/4 A325	3
17.	2	C40034183	U-BOLT ASSEMBLY, 1/2 φ X 2 15/16 C-C	3
18.	1	Z30992001	MOUNT CLASSIFICATION TAG C10857001C	1
19.	2	C40062103	STAINLESS STEEL SELF-LOCKING CABLE TIE	1
<b>TOTAL WEIGHT</b>				<b>462</b>

**PACKAGING NOTE**

CK00386 INCLUDES ITEMS 1, 3, 4, 5, 6, 7, 12 & 15 (8 QTY)  
 CK00387-HDW INCLUDES ITEMS 8, 9, 10, 13, 14, 15 (4 QTY), 16, 17, 18 & 19  
 CK00387-STL INCLUDES ITEMS 2 & 11

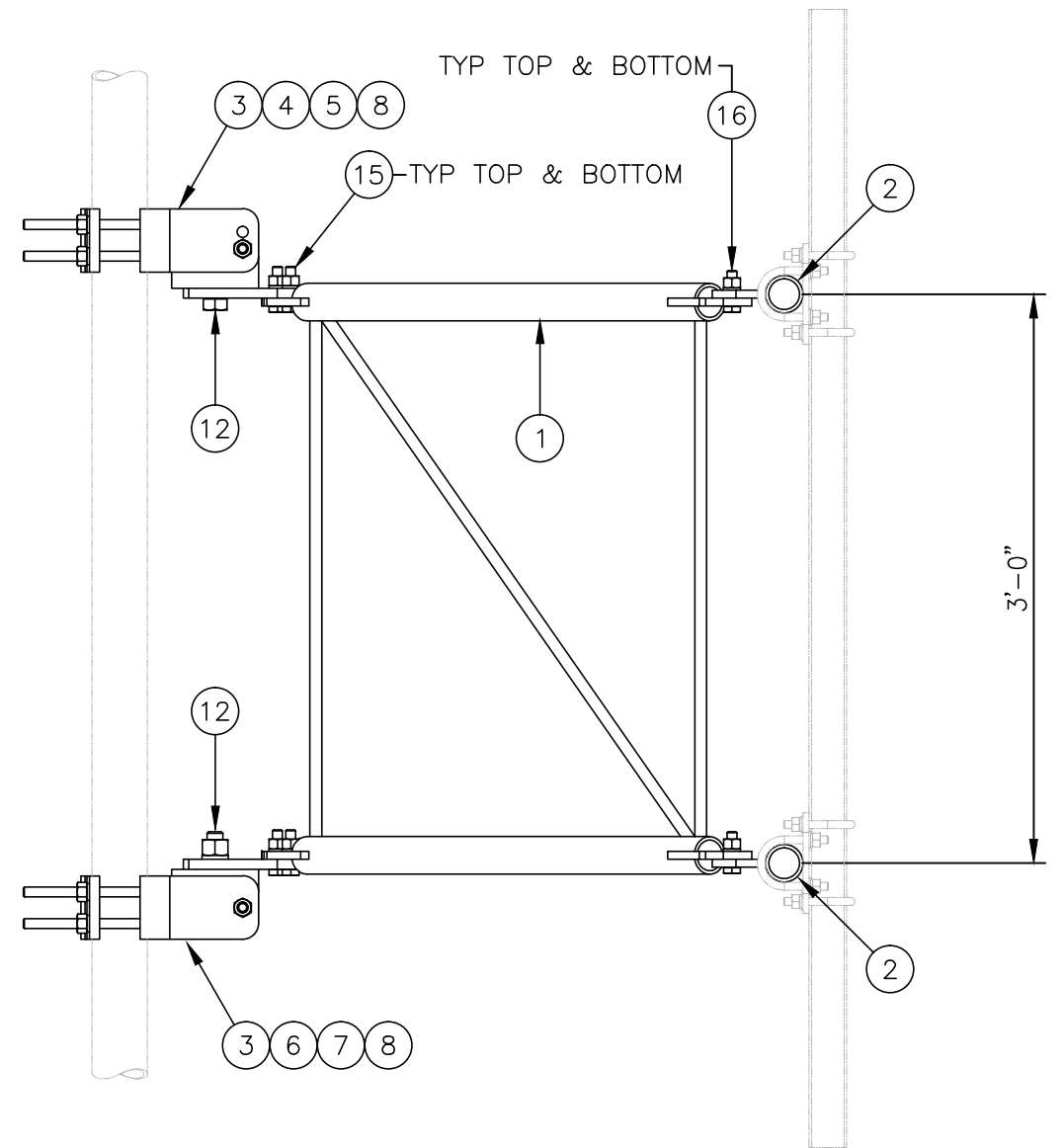
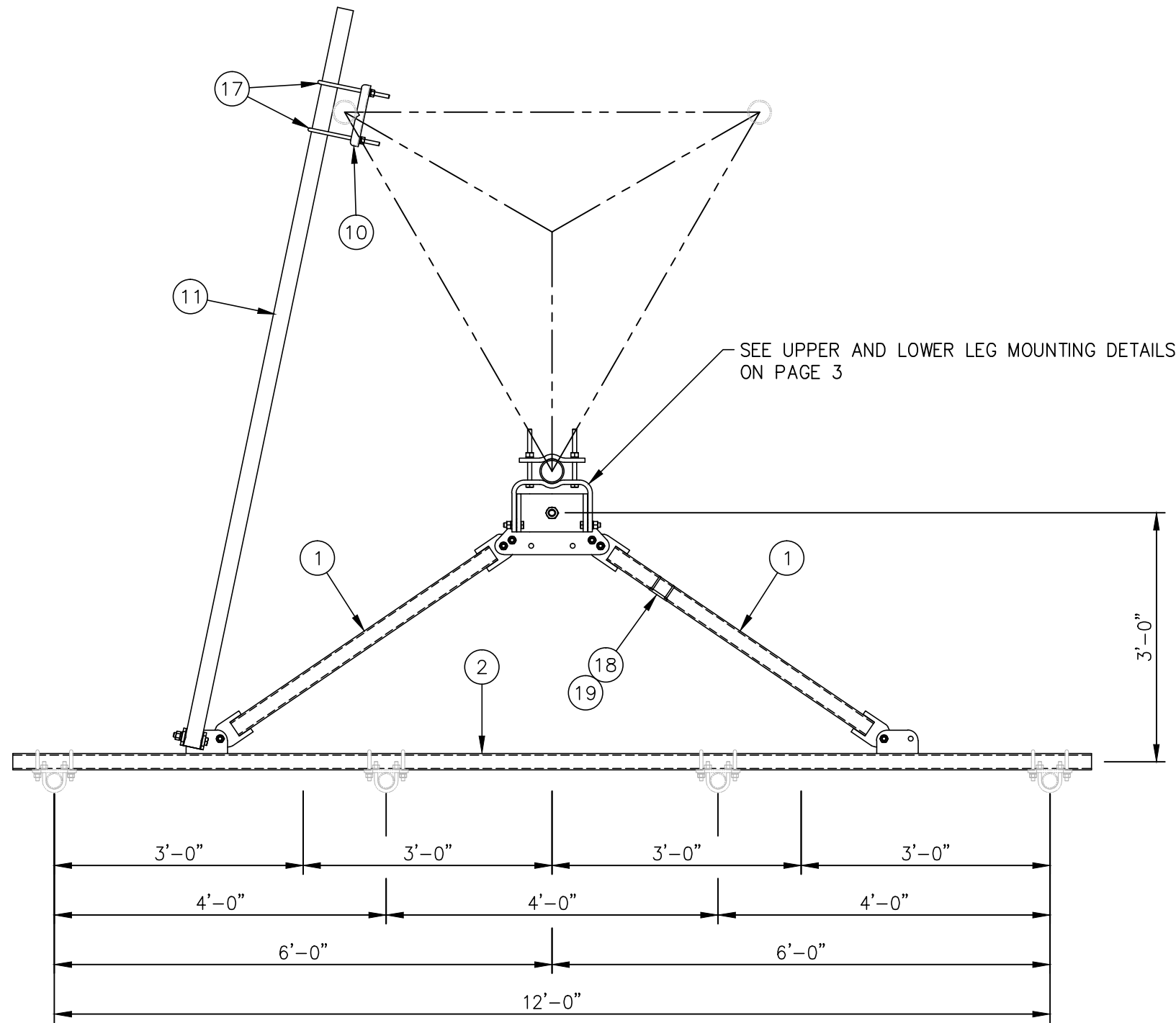
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES		MATERIAL:	
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"		TOLERANCES DO NOT APPLY TO RAW MATERIAL	
REV	DATE	DRW/CHK	DESCRIPTION
4	04/11/17	KLE/EK	REVISED PACKAGING NOTE
3	10/19/16	KLE/DEL	ADDED INSTALLATION NOTES
2	02/05/16	DLW/DEL	ADDED PACKAGING NOTE
1	01/21/16	KLE/EK	REVISED NOTES & ADDED TIEBACK ANGLE RANGE DETAIL



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**12' HD V-BOOM ASSEMBLY W/TIEBACK  
 (3' STANDOFF)  
 W/NO ANTENNA MOUNTING PIPES**

DATE	12/22/15	SIZE	B	DRAWING NO.	C10857001C	REV	4
DRAWN BY	WRF	CHECKED BY	EK	SCALE	None	PAGE	1 OF 3



SIDE VIEW

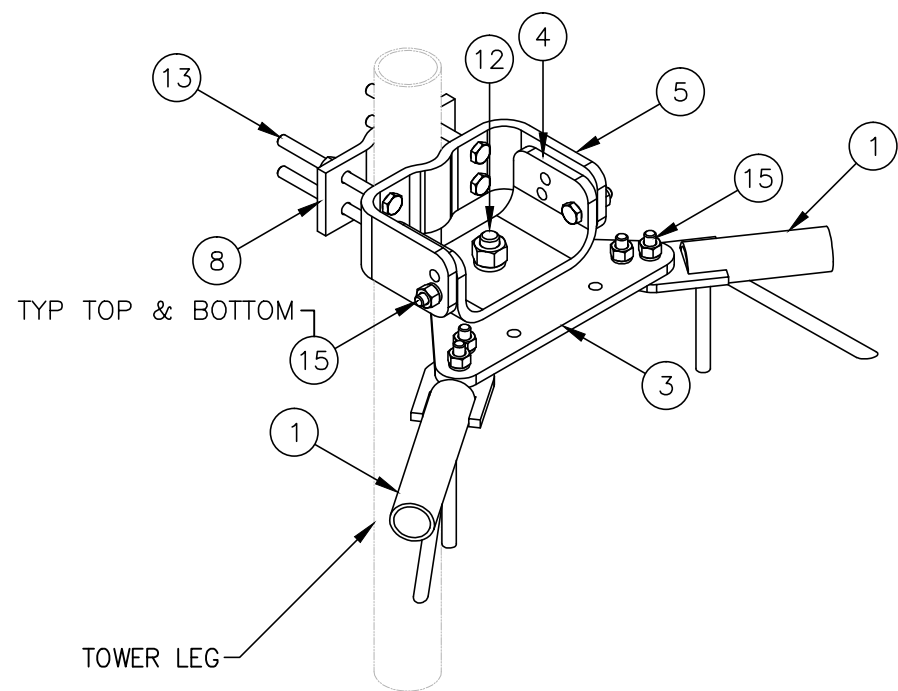
**MOUNTING OPTIONS**  
SHOWING MOUNTING PIPE PLACEMENTS

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES				MATERIAL:	
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG. DECIMALS ± .010"				TOLERANCES DO NOT APPLY TO RAW MATERIAL	
REV	DATE	DRW	CHK	DESCRIPTION	
4	04/11/17	KLE	EK	REVISED PACKAGING NOTE	
3	10/19/16	KLE	DEL	ADDED INSTALLATION NOTES	
2	02/05/16	DLW	DEL	ADDED PACKAGING NOTE	
1	01/21/16	KLE	EK	REVISED NOTES & ADDED TIEBACK ANGLE RANGE DETAIL	

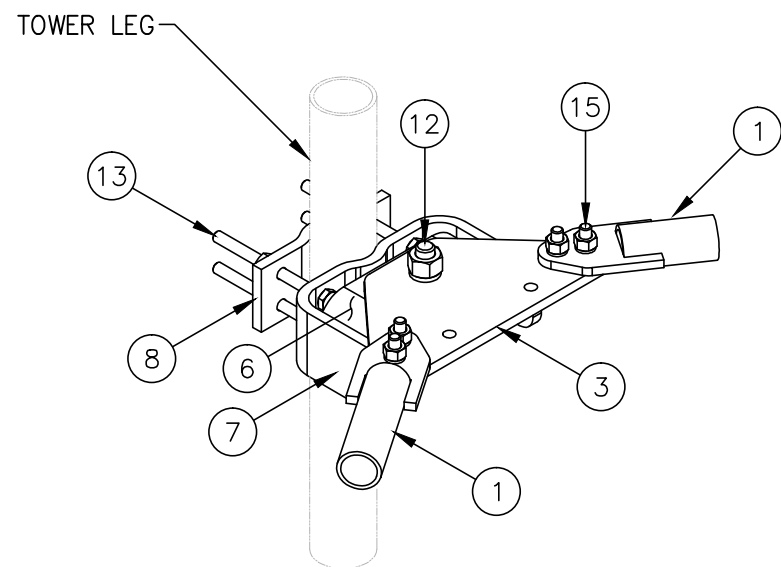
**Sabre Industries™**  
Towers and Poles

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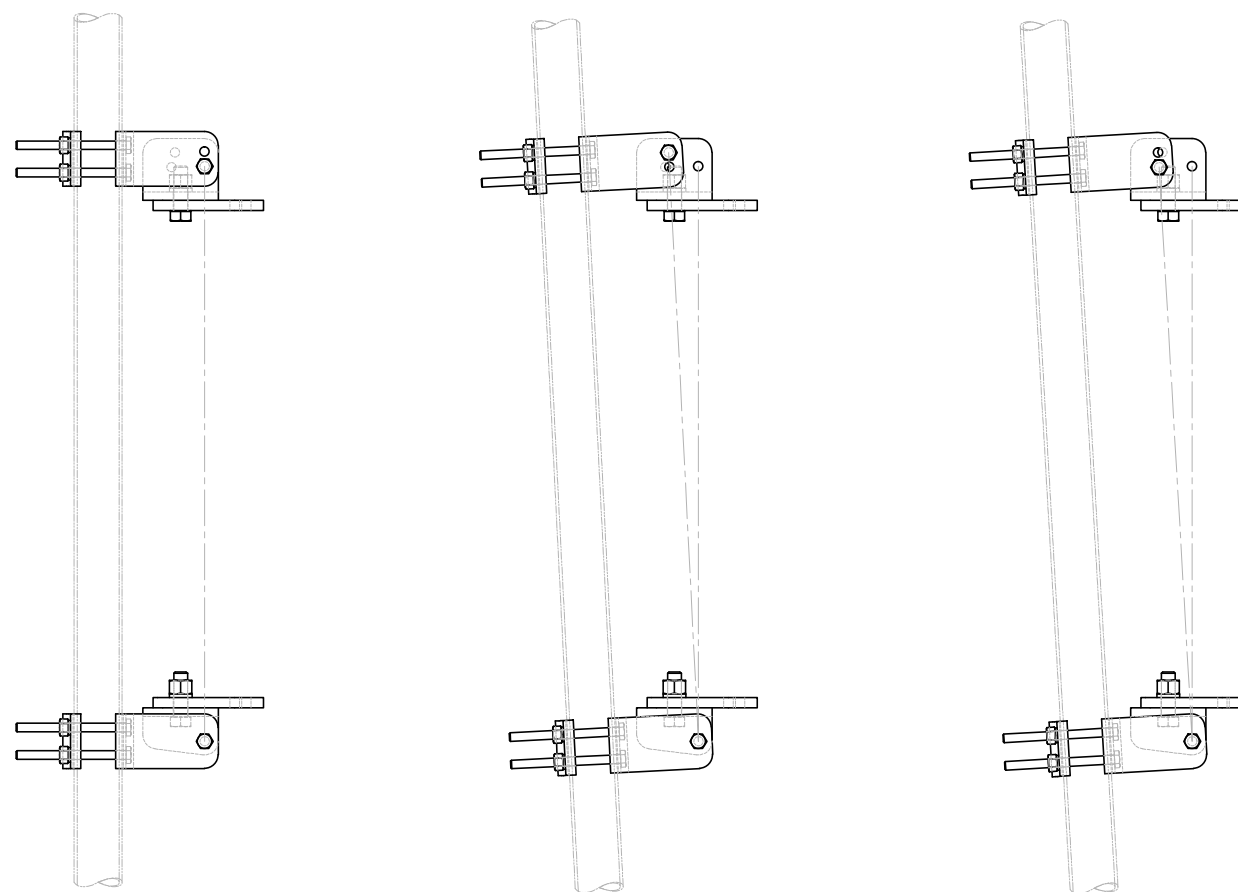
<b>12' HD V-BOOM ASSEMBLY W/TIEBACK (3' STANDOFF) W/NO ANTENNA MOUNTING PIPES</b>					
DATE	12/22/15	SIZE	B	DRAWING NO.	REV
DRAWN BY	WRF			C10857001C	4
CHECKED BY	EK	SCALE	None	PAGE 2 OF 3	



**UPPER LEG MOUNTING DETAIL**



**LOWER LEG MOUNTING DETAIL**

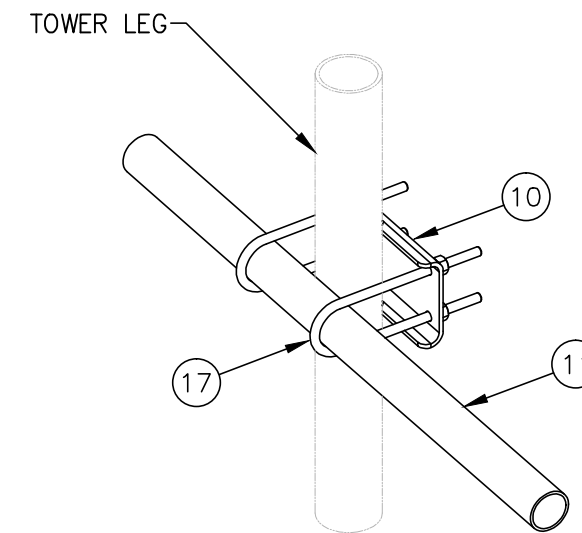


STRAIGHT TOWER SECTION

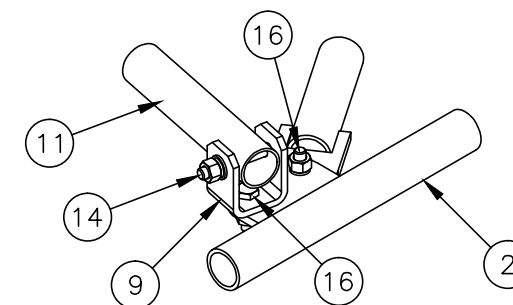
TAPERED 1'-9 IN 20' SLOPE

TAPERED 2' IN 20' SLOPE

-----PIVOTING OPTIONS-----



**TIE BACK DETAIL AT TOWER LEG**



**TIE BACK DETAIL AT ANTENNA MOUNTING FRAME**

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES				MATERIAL:	
TOLERANCES: FRACTIONS ± 1/16"				TOLERANCES DO NOT APPLY TO RAW MATERIAL	
ANGLES ± 1/2 DEG.					
DECIMALS ± .010"					
REV	DATE	DRW	CHK	DESCRIPTION	
4	04/11/17	KLE	EK	REVISED PACKAGING NOTE	
3	10/19/16	KLE	DEL	ADDED INSTALLATION NOTES	
2	02/05/16	DLW	DEL	ADDED PACKAGING NOTE	
1	01/21/16	KLE	EK	REVISED NOTES & ADDED TIEBACK ANGLE RANGE DETAIL	



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**12' HD V-BOOM ASSEMBLY W/TIEBACK (3' STANDOFF) W/NO ANTENNA MOUNTING PIPES**

DATE	12/22/15	SIZE	B	DRAWING NO.	C10857001C	REV	4
DRAWN BY	WRF	CHECKED BY	EK	SCALE	None	PAGE	3 OF 3

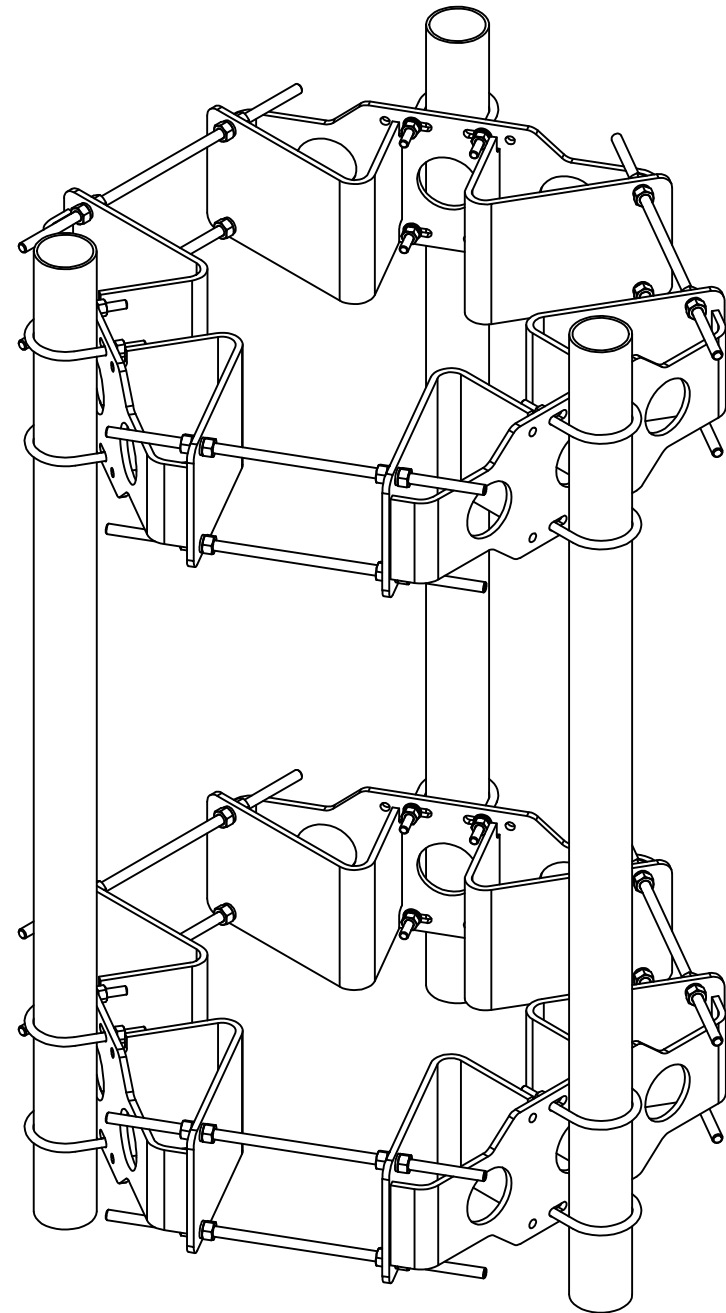


**NOTE:**

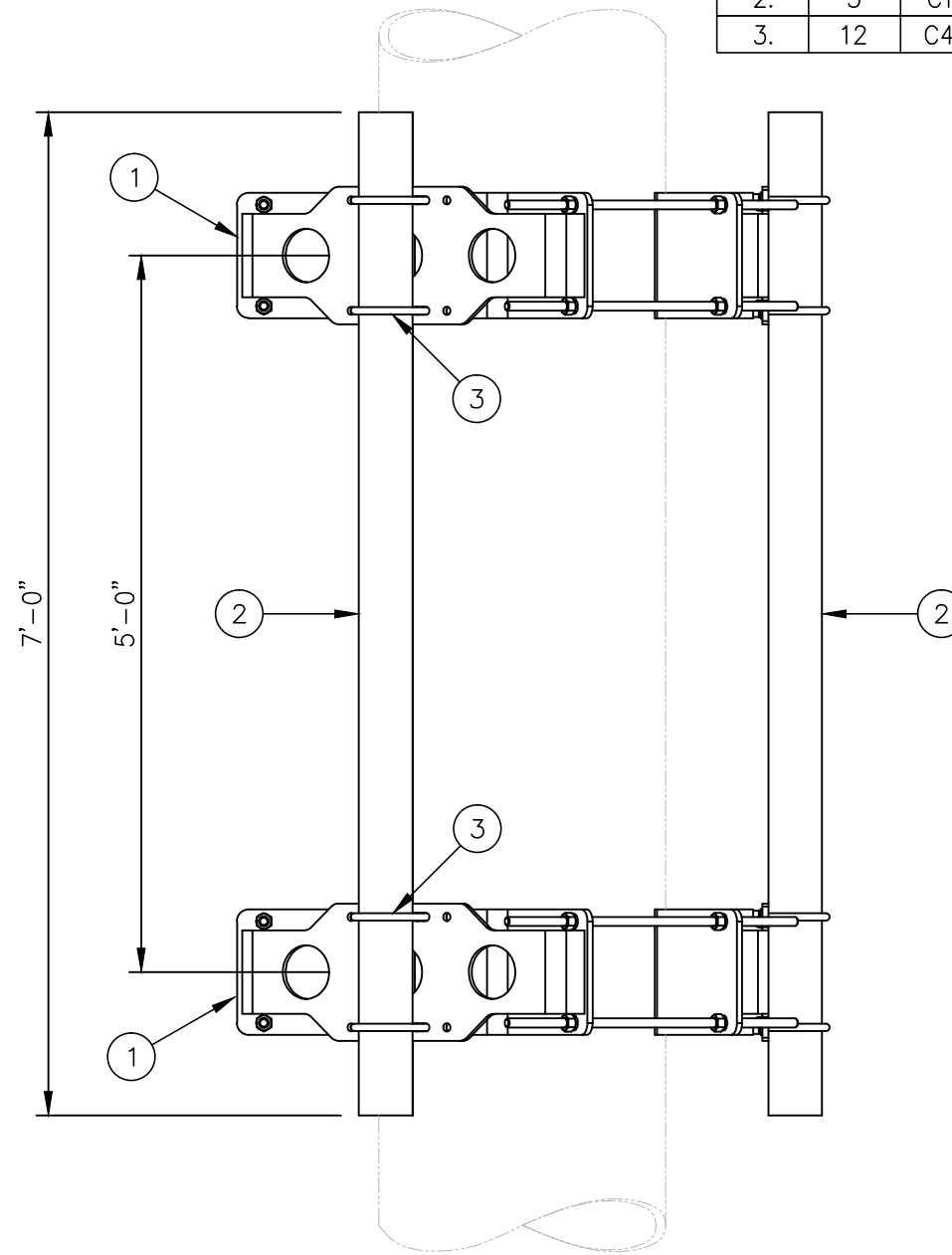
SEE DRAWING C10112378 FOR INSTALLATION OF TRI-COLLAR BRACKET ASSEMBLY

**C10899055 4 1/2" O.D. PIPE MOUNT ASSEMBLY**

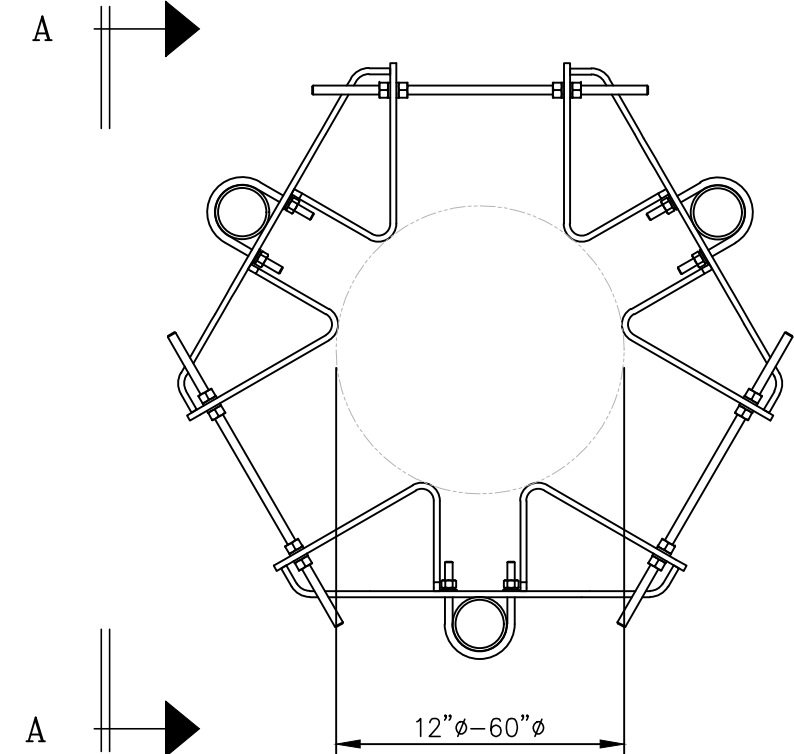
ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	2	C10112378	TRI-COLLAR BRACKET ASSEMBLY	732
2.	3	C10901407	PIPE, 4 1/2 O.D. X .237 X 7'-0	236
3.	12	C40034032	U-BOLT ASSEMBLY, 5/8 $\phi$ X 5 3/16 C-C	26
TOTAL WEIGHT				994



**ISOMETRIC VIEW**



**VIEW A-A**



**PLAN VIEW**

UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS INCLUDE  
FINISHES AND ARE IN INCHES  
  
TOLERANCES: FRACTIONS  $\pm 1/16"$   
ANGLES  $\pm 1/2$  DEG.  
DECIMALS  $\pm .010"$

MATERIAL:  
  
TOLERANCES DO NOT APPLY  
TO RAW MATERIAL



**4 1/2" O.D. PIPE MOUNT ASSEMBLY  
FOR MONOPOLES  
(FITS 12" TO 60" DIAMETER)**

REV	DATE	DRW	CHK	DESCRIPTION
1	02/03/17	WRF	KLE	COLLAR WAS C10112301

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DATE	01/26/16	SIZE	B	DRAWING NO.	C10899055	REV	1
DRAWN BY	WRF	CHECKED BY	DLW	SCALE	None	PAGE	1 OF 1