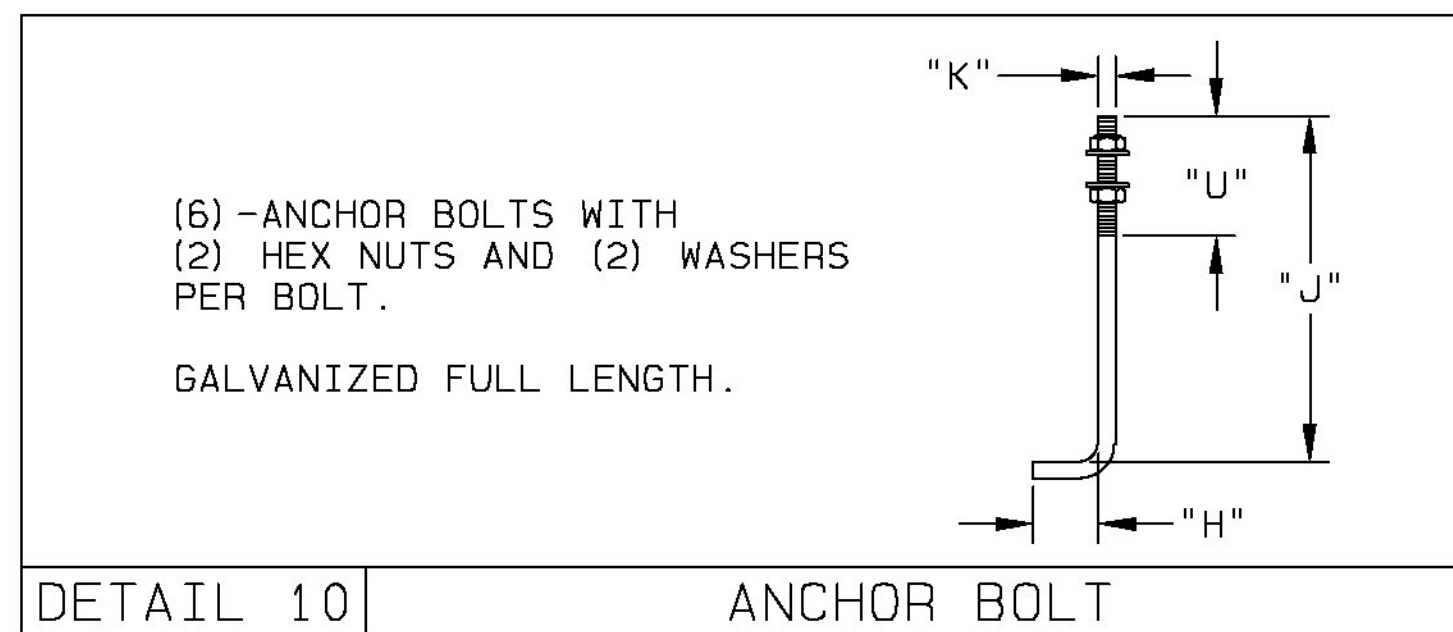
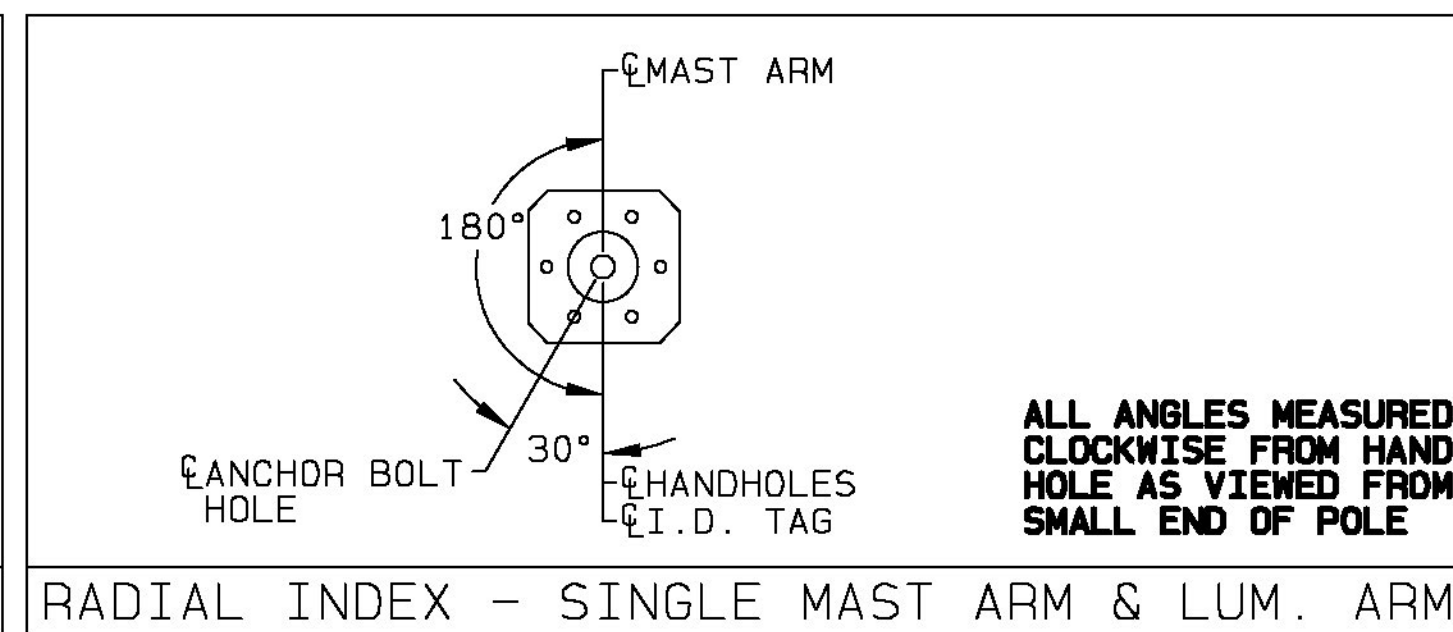


ITEM	POLE	QTY.	POLE TUBE				POLE BASE					ANCHOR BOLT				SIGNAL ARM TUBE						LUMINAIRE ARM SPAN "L" (FT)	LUMINAIRE ARM ORIENT. (DEGREES) "LAO"	NOMINAL LUMINAIRE ARM MOUNTING HEIGHT (FT)		
			BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE OR THK. (IN)	SQUARE "S" (IN)	CENTER HOLE DIA. (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE / SLOT "Z" (IN)	DIA. "K" (IN)	LENGTH "J" (IN)	HOOK "H" (IN)	THREAD LENGTH "U" (IN)	MAST ARM NUMBER	MAST ARM ATTACHMENT HEIGHT (FT)	SECOND MAST ARM ORIENT. (DEGREES) "MAO"	FIXED END DIA. (IN)	FREE END DIA. (IN)	GAUGE OR THICK (IN)				SPAN (FT)	
MAST ARM #1 - LOOKING NORTH BLAIR PARK ROAD																										
1	MAP-1	1	13.00	9.22	27.00	5	21.00	11.50	17.00	2.000	1.50	1.25	42.00	6.00	6.00	MA #1	19.50	N.A.	11.00	5.40	7	40.00	12.00	117	30.00	
MAST ARM #2 - LOOKING SOUTH HARVEST LANE																										
2	MAP-2	1	12.50	8.72	27.00	5	20.50	11.00	16.50	2.000	1.50	1.25	42.00	6.00	6.00	MA #2	20.00	N.A.	10.00	5.80	7	30.00	12.00	127	30.00	
MAST ARM #3 - LOOKING WEST US ROUTE 2																										
3	MAP-3	1	12.50	8.72	27.00	5	20.50	11.00	16.50	2.000	1.50	1.25	42.00	6.00	6.00	MA #3	19.00	N.A.	10.00	5.80	7	30.00	12.00	110	30.00	
MAST ARM #4 - LOOKING SOUTH SOUTH BROWNELL ROAD																										
4	MAP-4	1	13.00	9.22	27.00	5	21.00	11.50	17.00	2.000	1.50	1.25	42.00	6.00	6.00	MA #4	20.00	N.A.	11.00	6.10	7	35.00	10.00	162	30.00	
MAST ARM #3 - LOOKING SOUTH SOUTH BROWNELL ROAD																										
5	MAP-2	1	13.00	9.92	22.00	5	21.00	11.50	17.00	2.000	1.50	1.25	42.00	6.00	6.00	MA #3	20.00	N.A.	11.00	6.10	7	35.00	N.A.	N.A.	N.A.	



DETAIL 10 ANCHOR BOLT

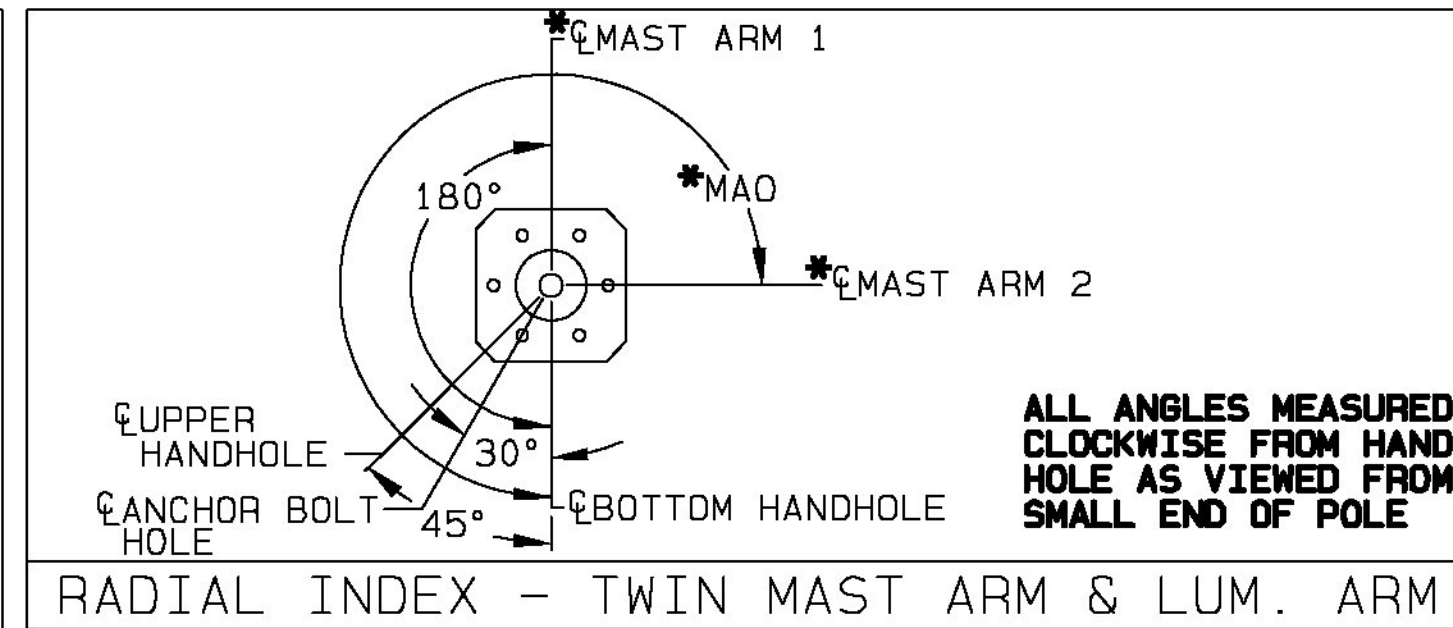


RADIAL INDEX - SINGLE MAST ARM & LUM. ARM

THE MAST ARM TRAFFIC STRUCTURES SHOWN ON THIS DRAWING HAVE BEEN DESIGNED IN ACCORDANCE WITH THE LOADING AND THE ALLOWABLE STRESS REQUIREMENTS OF THE 2013 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", SIXTH EDITION, LTS-6. THE WIND LOADS WERE CALCULATED FROM A BASIC WIND VELOCITY OF 90 MPH WITH A RECURRENCE INTERVAL OF 50 YEARS, AND A FATIGUE CATEGORY OF 2. THE FATIGUE LOADS WERE CALCULATED ON THE REQUIREMENTS OF SECTION 11 OF THE CODE, AND THE FOLLOWING DESIGN CONDITIONS:

- STRUCTURES ARE DESIGNED TO RESIST NATURAL WIND GUSTS BASED ON THE YEARLY MEAN WIND VELOCITY OF 11.2 MPH.
- STRUCTURES ARE NOT DESIGNED TO RESIST GALLOPING-INDUCED CYCLIC LOADS.
- STRUCTURES ARE DESIGNED FOR TRUCK-INDUCED GUST LOADS, AS REQUIRED BY THE OWNER OF THE STRUCTURES.

AASHTO 2013 SPECIFICATIONS



RADIAL INDEX - TWIN MAST ARM & LUM. ARM

ALTHOUGH RARE, VIBRATIONS SEVERE ENOUGH TO CAUSE DAMAGE CAN OCCASIONALLY OCCUR IN STRUCTURES OF ALL TYPES. BECAUSE THEY ARE INFLUENCED BY MANY INTERACTING VARIABLES, VIBRATIONS ARE GENERALLY UNPREDICTABLE. THE USER'S MAINTENANCE PROGRAM SHOULD INCLUDE OBSERVATION FOR EXCESSIVE VIBRATION AND EXAMINATION FOR ANY STRUCTURAL DAMAGE OR BOLT LOOSENING. THE VALMONT WARRANTY SPECIFICALLY EXCLUDES FATIGUE FAILURE OR SIMILAR PHENOMENA RESULTING FROM INDUCED VIBRATION, HARMONIC OSCILLATION OR RESONANCE ASSOCIATED WITH MOVEMENT OF AIR CURRENTS AROUND THE PRODUCT.

VIBRATION NOTE

***NOTES:**

1. ALL MAST ARM ORIENTATIONS MUST BE VERIFIED AT TIME OF RELEASE FOR MANUFACTURE. FAILURE TO DO SO WILL RESULT IN THE ORDER BEING PLACED ON HOLD.

(ALL ANGLES SHOWN ARE MEASURED FROM THE HANDHOLE AT THE BASE OF POLE AS VIEWED FROM THE SMALL END OF THE POLE)

2. (1) EXTRA ANCHOR BOLT PER POLE AND (1) EXTRA CONNECTING BOLT PER ARM SENT FOR TESTING.

JOB VAOT
S. BURLINGTON - WILLISTON, NH 2944 (1)
TITLE TRAFFIC SIGNAL STRUCTURES

VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.

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