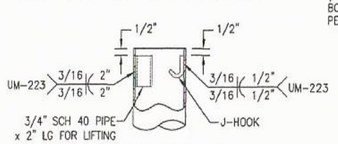
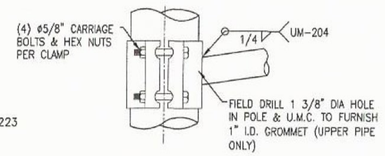
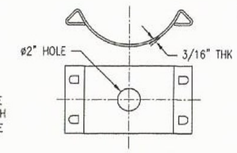
QTY	POLE ID	UMC DESIGN NUMBER	MAST ARM DATA						MAST ARM FLANGE CONNECTION DATA									POLE TUBE SIZE	POLE BASE CONNECTION DATA						
			SPAN	TUBE SIZE	JOINT	MTG HGT	RISE ∠	ORIENT	BOLT ø	X	Y	W	H	øCA	APL	PPL	G		B.C.	S	F	øCB	P	T	ANCHOR BOLT SIZE
1	1	50400-B790-Y1	45'-0"	3E-10.50x8.12x17'-0" 7E-8.76x4.60x29'-9"	21"	20'-0"	3'	180'	1 1/2	8 1/2	14	14	18 1/2	8 1/2	2	1 1/2	1/4	3E-13.50x9.86x26'-0"	18	19 1/2	9	10 1/2	6	2	1 1/4 x 42 x 6
1	2	50400-B790-Y2	30'-0"	7E-9.25x5.05x30'-0"	–	20'-0"	3'	180'	1 1/4	8	12	13	16	7	2	1 1/4	3/16	7E-13.00x9.36x26'-0"	18	19 1/2	9	10 1/2	6	2	1 1/4 x 42 x 6
			20'-0"	7E-8.00x5.20x20'-0"	–	20'-0"	3'	90'	1 1/4	8	12	13	16	6	2	1 1/4	3/16								

7 GA = 0.179" WALL THICKNESS
3 GA = 0.250" WALL THICKNESS
E = ROUND TAPERED STEEL TUBE @ 0.14 in/ft TAPER

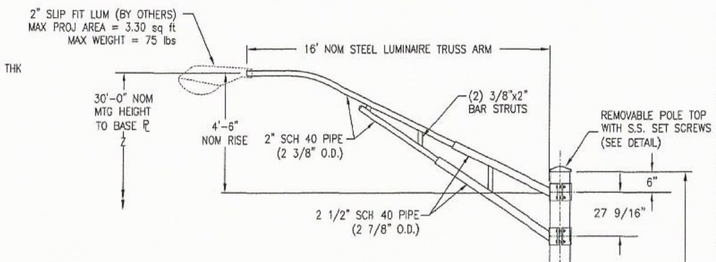


TOP OF POLE DETAIL
ORIENTATION OF PIPE & J-HOOK AS REQUIRED





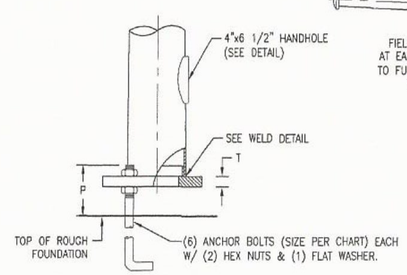
LUMINAIRE ARM CONNECTION DETAIL
(REF B85 SERIES)



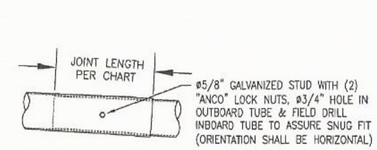
DESIGN CRITERIA:

1. DESIGNED IN ACCORDANCE WITH THE 2013 AASHTO, "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" FOR 90 M.P.H. WIND ZONE. THE DESIGN PARAMETERS INCLUDE:
   50 YEAR STRUCTURE DESIGN LIFE
   FATIGUE CATEGORY II CONSIDERATION FOR:
   NATURAL WIND GUST
   TRUCK INDUCED GUST (65 MPH)
2. ANCHOR BOLTS ANALYZED FOR STEEL STRENGTH ONLY. THE ANCHOR BOLT EMBEDMENT LENGTH SHOWN ON THIS DRAWING SHALL BE VERIFIED BY THE FOUNDATION ENGINEER.
3. THE EXPOSED LENGTH OF THE ANCHOR BOLT BETWEEN THE TOP OF THE FOUNDATION AND THE BOTTOM OF THE LEVELING NUT SHOULD NOT EXCEED ONE BOLT DIAMETER.
4. PER AASHTO THE MINIMUM LENGTH OF ANY TELESCOPIC FIELD JOINT SHALL BE 1.5 TIMES THE INSIDE DIAMETER OF THE END OF THE FEMALE SECTION.
5. VIBRATION IS MORE LIKELY TO OCCUR WHEN STRUCTURES ARE INSTALLED WITHOUT ATTACHING THE SIGNALS AND OR SIGNS. THEREFORE, THE INTENDED EQUIPMENT OR DAMPENING DEVICES MUST BE INSTALLED AT THE TIME OF ERECTION. BECAUSE VIBRATION IS GENERALLY UNPREDICTABLE, A MAINTENANCE PROGRAM SHOULD INCLUDE INSPECTION FOR INDICATIONS OF EXCESSIVE VIBRATION OR FATIGUE AND EXAMINATION FOR ANY STRUCTURAL DAMAGE OR BOLT LOOSENING.
6. **CUSTOMER TO CONFIRM ALL DIMENSIONS & ORIENTATIONS BEFORE RELEASING ORDER FOR MANUFACTURING.**

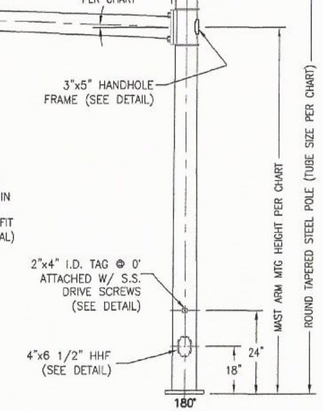
MATERIAL SPECIFICATIONS	
TAPERED TUBE	ASTM A595 GR A
PLATE	ASTM A36
BAR HANDHOLE FRAME	ASTM A529 GR 50 or ASTM A572 GR 50 or ASTM A709 GR 50
HANDHOLE COVER	ASTM A36 or A1011
ANCHOR BOLTS	ASTM F1554 GR 55
ANCHOR BOLT NUTS	ASTM A563 GR A
FLAT WASHERS	ASTM F436
ARM CONNECTION BOLTS	ASTM A325
DTI WASHERS	ASTM F959
ARM JOINT STUD	ASTM A36
"ANCO" LOCK NUTS	ASTM A563 GR DH
POLE TOP/ARM END CAP	ASTM B26 (356.0 F) or A1011
S.S. HARDWARE	AISI-300 SERIES (18-8)
STRUCTURE FINISH	HD GALV TO ASTM A123 & POWDER COAT BLACK (#27038)
HARDWARE FINISH	HD GALV TO ASTM A153

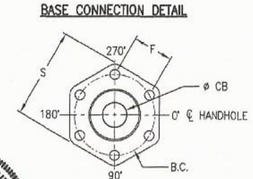


BASE CONNECTION DETAIL



TELESCOPIC FIELD JOINT DETAIL
(FOR ARMS OVER 40'-0")





BASE PLATE DETAIL

U.M.C.
POLE GA. DIA. & LGTH
ARM GA. DIA. & LGTH
55 K.S.I.
YEAR OF MFG.

ID TAG DETAIL

STATE OF VERMONT
DAVID N. FRITZ
No. 8694
Structural I
LICENSED PROFESSIONAL ENGINEER
6/27/17

STATE: VT	REQ# / SO# : DVT-0608A-1	REV	DESCRIPTION	DATE	REV BY	CHK BY
PROJECT NAME: TOWN OF LUDLOW, HES SGNL(44) / RT 103			REVISIONS			

ROUND TAPERED STEEL TRAFFFIC CONTROL STRUCTURE
WINDSOR COUNTY, VERMONT

Union Metal Corporation

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DESIGNED BY	CHECKED BY	DATE	SCALE	ENG REF
JEF	JdS	6/19/17	NTS	50400-SERIES
50400-B790			REVISION R0	SHEET 1 OF 2

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