QTY	DESIGN NUMBER	ARM SPAN	NO. OF ARMS	POLE TUBE SIZE	A.BOLT SIZE	MTG. HGT.	BASE TYPE
	71035-B50-Y1	–	0	11E-10.00x7.20x20'-0" 11E-7.20x3.00x30'-0"	1 x 54		
	71035-B50-Y2	6'-0"	1	11E-10.02x4.00x43'-0"-K			
	71035-B50-Y3	8'-0"	1	11E-10.02x4.00x43'-0"-K			
	71035-B50-Y4	10'-0"	1	11E-10.02x4.00x43'-0"-K			
	71035-B50-Y5	12'-0"	1	11E-10.02x4.00x43'-0"-K			
	71035-B50-Y6	14'-0"	1	11E-10.02x4.00x43'-0"-K			
	71035-B50-Y7	16'-0"	1	11E-10.02x4.00x43'-0"-K			
	71035-B50-Y8	6'-0"	2	11E-10.02x4.00x43'-0"-K			*FB
	71035-B50-Y9	8'-0"	2	11E-10.02x4.00x43'-0"-K			*FB
	71035-B50-Y10	10'-0"	2	11E-10.02x4.00x43'-0"-K	1 1/8 x 54		*FB
	71035-B50-Y11	12'-0"	2	11E-10.02x4.00x43'-0"-K			*FB
	71035-B50-Y12	14'-0"	2	11E-10.02x4.00x43'-0"-K			*FB
	71035-B50-Y13	16'-0"	2	11E-10.02x4.00x43'-0"-K			*FB

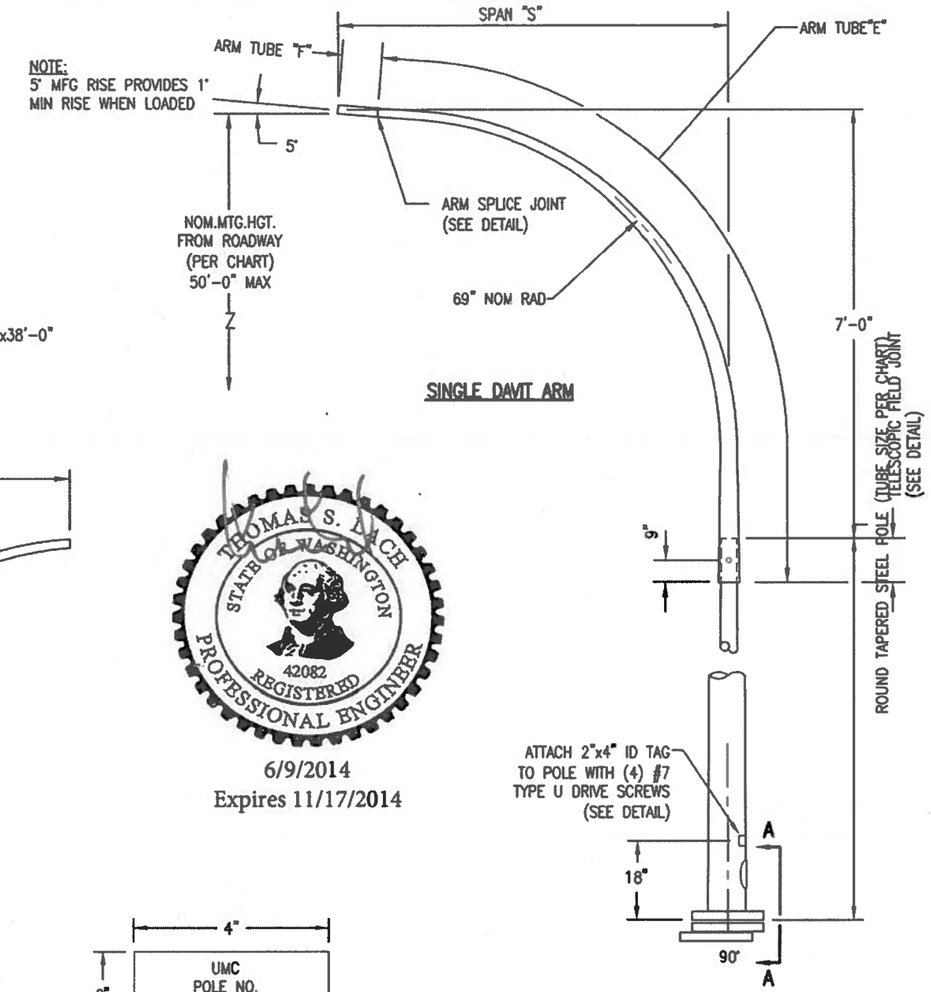
11 GA = 0.120" WALL THICKNESS
E = ROUND TAPERED STEEL TUBE @ 0.14 in/ft TAPER

* SEE NOTE 14

LUMINAIRE ARM DATA		
SPAN "S"	ARM TUBE "E"	PIPE TUBE "F"
6'-0"	11EV-4.46x2.89x11'-3"	.154"W-2.375"x0'-9"
8'-0"	11EV-4.46x2.64x13'-0"	.154"W-2.375"x0'-9"
10'-0"	11EV-4.46x2.40x14'-9"	.154"W-2.375"x1'-0"
12'-0"	11EV-4.46x2.40x14'-9"	.154"W-2.375"x2'-9"
14'-0"	11EV-4.46x2.40x14'-9"	.154"W-2.375"x4'-6"
16'-0"	11EV-4.46x2.40x14'-9"	.154"W-2.375"x6'-6"

ORDERING INFORMATION:
IF MOUNTING HEIGHT DIFFERS FROM 50'-0", SPECIFY WITH DESIGN NUMBER:
EXAMPLE – 71035-B50-Y2-45-SB-12 ← LUM SPREAD
45'-0" MOUNTING HEIGHT — SLIP BASE

– FOR A 45'-0" MOUNTING HEIGHT, POLE SIZE "A" WILL BE 11E-9.32x4.00x38'-0"
– FOR MOUNTING HEIGHTS OF 40'-0" OR LESS, SEE DRAWING 71035-B39

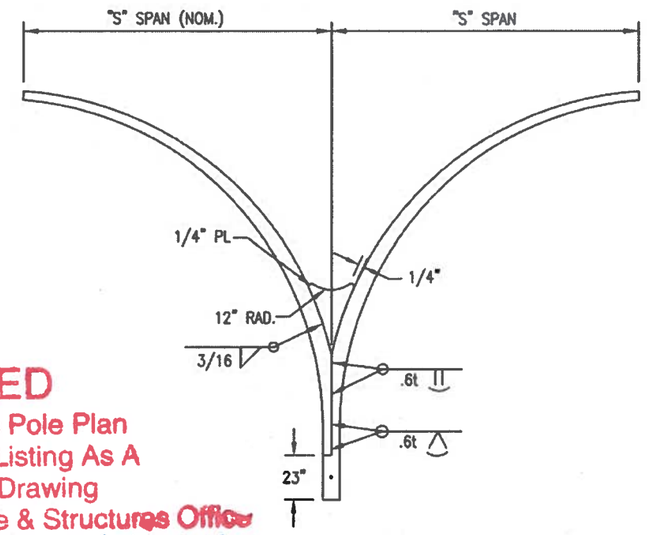


SINGLE DAVIT ARM

PLAN VIEW

DESIGN CRITERIA:

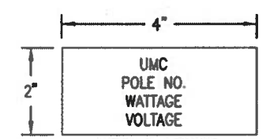
1. DESIGNED IN ACCORDANCE WITH THE 2009 AASHTO, 5TH EDITION, "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" FOR 90 M.P.H. WIND ZONE AND 50 YEAR STRUCTURE DESIGN LIFE/RECURRENCE INTERVAL.
2. DESIGNED TO SUPPORT LUMINAIRES WITH MAXIMUM PROJECTED AREA OF 3.3 SQ FT (Cd=0.5) AND MAXIMUM WEIGHT OF 75 LBS.
3. DESIGNED TO SUPPORT POLE MOUNTED SIGN WITH MAXIMUM PROJECTED AREA OF 20.0 SQ FT (Cd=1.2) & CENTER OF PRESSURE AT ELEVATION 9.5FT. ABOVE ROADWAY.
4. ANCHOR BOLTS ANALYZED FOR STEEL STRENGTH ONLY. THE ANCHOR BOLT EMBEDMENT LENGTH SHOWN ON THIS DRAWING SHALL BE VERIFIED BY THE FOUNDATION ENGINEER.
5. 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.
6. 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.
7. WELDING PER AWS D1-1 STRUCTURAL WELDING CODE, LATEST EDITION AND SECTION 5.15 OF THE SPECIFICATION FOR STRUCTURAL SUPPORTS OF HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, AASHTO 2009.
8. LONGITUDINAL SEAM WELD IS 60% MINIMUM PENETRATION EXCEPT FOR 6 INCHES FROM END OF SECTION AT FLANGE, BASE PLATE, AND SLIP JOINT IS 100% PENETRATION.
9. FOR POLES REQUIRING DIFFERENT MTG. HGT. THAN SHOWN, THE POLE BASE DIA SHALL BE ADJUSTED @ 0.14 IN/FT TAPER.
10. POLE BASE PL. W/O SLIP PLATE & ANCHOR PLATE IS A FIXED BASE. WHEN A FIXED BASE IS REQ'D BY CONTRACT PLANS, ROTATE ANC. BOLT PATTERN SHOWN ON STD. PLAN J-28.30 & INSTALL POLE BASE PL. DIRECTLY TO FOUNDATION. (IF SLIP BASE IS REQ'D, ADD SUFFIX 'SB' TO DESIGN NO. IF FIXED BASE IS REQ'D, ADD SUFFIX 'FB'.)
11. BASE PLATES FOR POLES MOUNTED ON MEDIAN BARRIERS SHALL BE AS SHOWN ON CONTRACT PLANS.
12. ALL WIREWAYS SHALL BE ROUNDED AND SMOOTH.
13. DAMAGED GALVANIZING SHALL BE REPAIRED, PER ASTM-A780
14. INSTALLATION OF A 50ft POLE W/ DOUBLE LUM ARM ON SLIP BASE IS NOT ALLOWED.
15. **CUSTOMER TO CONFIRM ALL DIMENSIONS & ORIENTATIONS BEFORE RELEASING ORDER FOR MANUFACTURING.**



TWIN DAVIT ARM

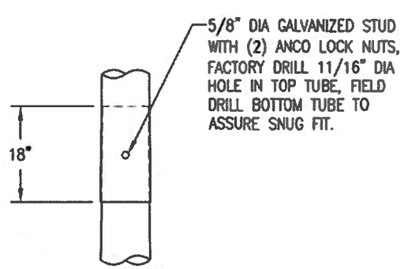
THOMAS S. DACH
STATE OF WASHINGTON
42082
REGISTERED
PROFESSIONAL ENGINEER
6/9/2014
Expires 11/17/2014

APPROVED
Manufacturer's Pole Plan
Approved For Listing As A
Pre-Approved Drawing
WSDOT Bridge & Structures Office
By GB Date 6-12-2014



ID TAG DETAIL

MATERIAL SPECIFICATIONS	
TAPERED TUBE	ASTM A595 GR A
TAPERED "K" TUBE	ASTM A572 GR 65
BASE PLATE & SLIP BASE	ASTM A572 GR 50
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 105 MECH
ANCHOR BOLT NUTS	ASTM A563 GR DH
FLAT WASHERS	ASTM F436
TELESCOPIC FIELD JOINT STUD	ASTM A36
"ANCO" LOCK NUTS	ASTM A563 GR DH
PIPE & TUBE	ASTM A53 GR B, A500 GR B or C, A513 S5.1 DOM (50 KSI MIN)
S.S. HARDWARE	AISI-300 SERIES (18-8)
STRUCTURE FINISH	HD GALV TO ASTM A123
HARDWARE FINISH	HD GALV TO ASTM F2329



TELESCOPIC FIELD JOINT DETAIL

PROJECT INFORMATION	
PROJECT:	
COUNTY:	
CITY:	
REQ:	
STATE: WA	REQ# / SO# : ~
PROJECT NAME: WASHINGTON DOT	

REV	DESCRIPTION	DATE	DRN BY	CHK BY
R4	ADDED A513 S5.1 DOM (MIN) TO PIPE/TUBE SPECS; REMOVED SQUARE WASHERS FROM ANCHOR BOLT CAGE; ADDED PROJECT INFO BLOCK; REVISED BASE CONNECTION HOLE SIZES TO MEET CURRENT STATE STANDARDS; UPDATED HARDWARE GALV SPEC; REVISED HHF COVER ATTACHMENT CLIPS.	6/4/14	FJP	SAD
R3	ADDED A500 GR B PIPE & TUBE A-513 TO MATERIAL SPEC'S	9/30/11	EDB	BJR

REVISIONS

STEEL LIGHTING POLE W/ SINGLE & TWIN DAVIT ARMS (TYPE 1 ARM)
FOR WASHINGTON DOT

Union Metal Corporation

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DESIGNED BY	CHECKED BY	DATE	SCALE	ENG REF
LRR	SAD	8/18/09	NTS	71035-B38
71035-B50			REVISION R4	SHEET 1 OF 3

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