

U.M. DESIGN NUMBER	"A" ROUND STEEL SHAFT	ARM TUBE SIZE	"L" SPAN	MAX. ALLOWABLE XYZ VALUES
71026-B87-Y1	7E-14.0x10.92x22'-0"	7E-6.0x3.90x15'-0"	15'-0"	269 CU. FT.
71026-B87-Y2		7E-6.0x3.20x20'-0"	20'-0"	409 CU. FT.
71026-B87-Y3	3E-14.0x10.92x22'-0"	7E-7.5x4.00x25'-0"	25'-0"	655 CU. FT.
71026-B87-Y4		7E-8.5x4.30x30'-0"	30'-0"	865 CU. FT.
71026-B87-Y5	0E-14.0x10.92x22'-0"	7E-10.0x5.10x35'-0"	35'-0"	1075 CU. FT.
71026-B87-Y6		7E-11.0x5.40x40'-0"	40'-0"	1285 CU. FT.
71026-B87-Y7	3E-17.0x13.92x22'-0"	7E-11.0x6.80x30'-0" 11E-7.29x4.98x16'-6"	45'-0"	1495 CU. FT.
71026-B87-Y8		7E-12.0x7.80x30'-0" 11E-8.29x5.28x21'-6"	50'-0"	1705 CU. FT.
71026-B87-Y9	0E-17.5x14.42x22'-0"	7E-12.5x8.30x30'-0" 11E-8.83x5.09x26'-9"	55'-0"	1915 CU. FT.
71026-B87-Y10		3E-12.5x7.60x35'-0" 11E-8.09x4.38x26'-6"	60'-0"	2609 CU. FT.
71026-B87-Y11	0E-17.5x14.42x22'-0"	3E-13.0x7.68x38'-0" 7E-8.29x4.30x28'-6"	65'-0"	2889 CU. FT.

FORMULA: MAX ALLOW = Σ (P.A.)x(MOM ARM)

**NOTE:**  
SAMPLE DESIGN = 35'-0" @ 17' SIGNAL ARM END MOUNTED AND SPACED 10'-0" & 22'-0" FROM OUTBOARD END; PLUS (1) LUMINAIRE ARM 16'-0" SPREAD & 40'-0" MTG. HGT.

"E" SIGNIFIES END MOUNTED SIGNAL CONN.  
71026-B87-Y5-M16-EK10K12-40-35@17  
IF OUTBOARD SIGNAL IS SIDE MOUNTED USE, "L" (ARM) LENGTH  
71026-B87-Y5-M16-SK10K12-40-35@17 ARM CONN. MTG HGT  
"S" SIGNIFIES SIDE MOUNTED SIGNAL CONN.

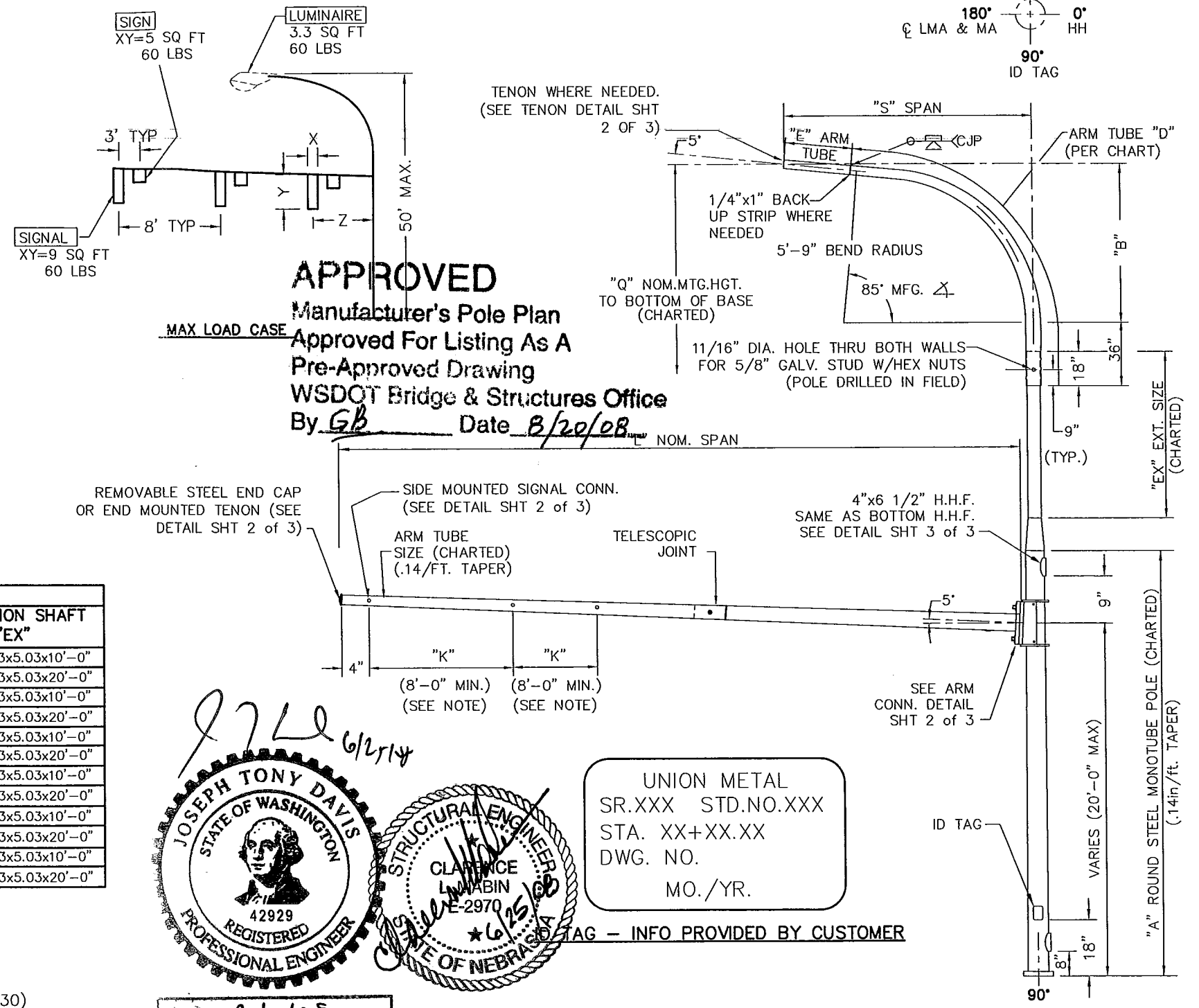
LUMINAIRE ARM DATA							
TYPE	SPAN "S"	"B"	ARM TUBE "D"	PIPE TUBE "E"	TENON	MTG.HT. "Q"	EXTENSION SHAFT "EX"
M6	6'-0"	5'-10"	11E-5.60x3.89x12'-2 5/16"		REQ.	40'-0" 50'-0"	11E-6.43x5.03x10'-0" 11E-7.83x5.03x20'-0"
M8	8'-0"	6'-0"	11E-5.60x3.61x14'-2 5/16"		REQ.	40'-0" 50'-0"	11E-6.43x5.03x10'-0" 11E-7.83x5.03x20'-0"
M10	10'-0"	6'-2"	11E-5.60x3.33x16'-2 5/16"		REQ.	40'-0" 50'-0"	11E-6.43x5.03x10'-0" 11E-7.83x5.03x20'-0"
M12	12'-0"	6'-4"	11E-5.60x3.50x15'-0"	.188"W-3.50x3'-9 5/16"	REQ.	40'-0" 50'-0"	11E-6.43x5.03x10'-0" 11E-7.83x5.03x20'-0"
M14	14'-0"	6'-6"	11E-5.60x3.5x15'-0"	.188"W-3.50x5'-9 5/16"	REQ.	40'-0" 50'-0"	11E-6.43x5.03x10'-0" 11E-7.83x5.03x20'-0"
M16	16'-0"	6'-8"	11E-5.60x3.5x15'-0"	.188"W-3.50x7'-9 5/16"	REQ.	40'-0" 50'-0"	11E-6.43x5.03x10'-0" 11E-7.83x5.03x20'-0"

**WELDING NOTE:**  
"WELDING PER AWS D1.1 STRUCTURAL WELDING CODE, 2002 AND SECTION 1.4.2 OF THE SPECIFICATIONS FOR STRUCTURAL SUPPORTS OF HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, AASHTO 2001."

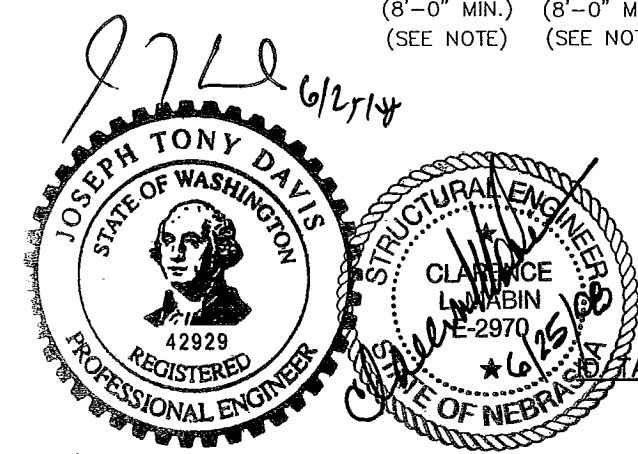
DESIGNED FOR MAX. ALLOW. XYZ VALUE AS CHARTED

MATERIAL SPECIFICATION	
MONOTUBES all t FOR 0.23 <= t <= 0.3125	ASTM-A595 GR.A OR A607-55 ASTM-572 GR55 min. 21% EL.
OR t < 0.23	ASTM-607 GR.55 CL. II /AKA/ ASTM-A1011 HSLAS GR.55 CL. II min. 22% EL.
PLATES	ASTM-A36
PIPE	ASTM-A53 GR.B OR A501
CONNECTION BOLTS	ASTM-A325
ANCHOR BOLTS	ASTM-F1554 GR 105
A. BOLT NUTS	ASTM-A563 GR. DH
STRUCTURE FINISH	H.D.GALV. ASTM-A123
HARDWARE FINISH	H.D.GALV. ASTM-A153

**RATING NOTE:**  
DESIGNED PER 2001 AASHTO  
BASIC WIND SPEED: 90MPH  
DESIGN LIFE: 50 YEARS  
FATIGUE CATEGORY: III  
GALLOPING LOADS: YES (If=0.30)  
TRUCK GUSTS: YES (If=0.68)  
NATURAL WIND: YES (If=0.59)  
CAFL AT CRITICAL CONNECTIONS:  
POLE TO BASE PLATE CONNECTION  
A. SOCKET DETAIL W/ FILLET WELD=E'  
B. FULL PENETRATION WELD=D  
ARM TO PLATE CONNECTION:  
A. SOCKET DETAIL W/ FILLET WELD=E'  
B. FULL PENETRATION WELD=D  
FLANGE GUSSETS=E'  
POLE WALL AT FLANGE GUSSETS=E'  
POLE JUST BELOW FLANGE BOX=E  
POLE SHAFT=B'  
TELESCOPIC JOINT=B



**APPROVED**  
Manufacturer's Pole Plan  
Approved For Listing As A  
Pre-Approved Drawing  
WSDOT Bridge & Structures Office  
By GB Date 8/20/08



UNION METAL  
SR.XXX STD.NO.XXX  
STA. XX+XX.XX  
DWG. NO.  
MO./YR.  
TAG - INFO PROVIDED BY CUSTOMER

REVISIONS		EXPIRES 2/1/09	
R08	20273-4	5/8/08	REVISED CENTER HOLE DIMENSION ON ANCHOR PLATES.
R07	20273-3	4/7/08	REVISED SHAFT TUBE SIZES FOR Y3, Y4, & Y6 AND ARM TUBE SIZES FOR Y7 & Y11. Y11 DIMS: X WAS 9, APT WAS 1 1/2. SOCKET DETAIL W/ FILLET WELD WAS E. Y8-Y11 POLE BASE HAD SOCKET WELD. ANCHOR MATH WAS A449. DESIGN LIFE WAS 25 YRS. ADDED ANCHOR PLATES.
R6	20273-1	7/13/07	REVISED TUBE SIZES FOR ALL DESIGNS

TYPE III STEEL COMBINATION TRAFFIC & STREET LIGHTING POLES, TYPE 1 LUM. ARM STATE OF WASHINGTON DOT	LOF -----	ENG.REF.# 71026-B35
REQ.# 0873-07-1	S.O.# -----	CAD# -----
DRAWN LCV		DRAWING NO. 71026-B87
DATE 3/4/03		SHT. 1 OF 3
CHECKED EBL		