

I.D. TAG DETAIL

ALUMINUM ID TAG
 TEXT TO BE STAMPED AS SHOWN
 IN 5/16" TALL LETTERS
 SECURED TO POST WITH (4) 3/16" DIA RIVETS

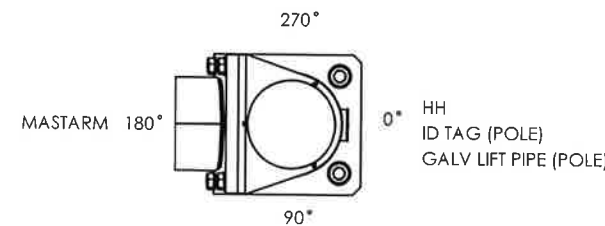
2015 AASHTO DEVIATION NOTES:

- SECTION 5.6.6 FOR HANDHOLE CLEAR DISTANCE AND 40% OF POLE WIDTH REQUIREMENT. STRESSES ARE REVIEWED AT EACH HANDHOLE FOR STRUCTURE ADEQUACY.
- PER AASHTO 2013 SECTION 5.17.4.3 - BENDING STRESSES IN INDIVIDUAL BOLT CAN BE IGNORED IF THE STANDOFF DISTANCE BETWEEN THE TOP OF THE FOUNDATION AND THE BOTTOM OF THE LEVELING NUT IS LESS THAN ONE BOLT DIAMETER.

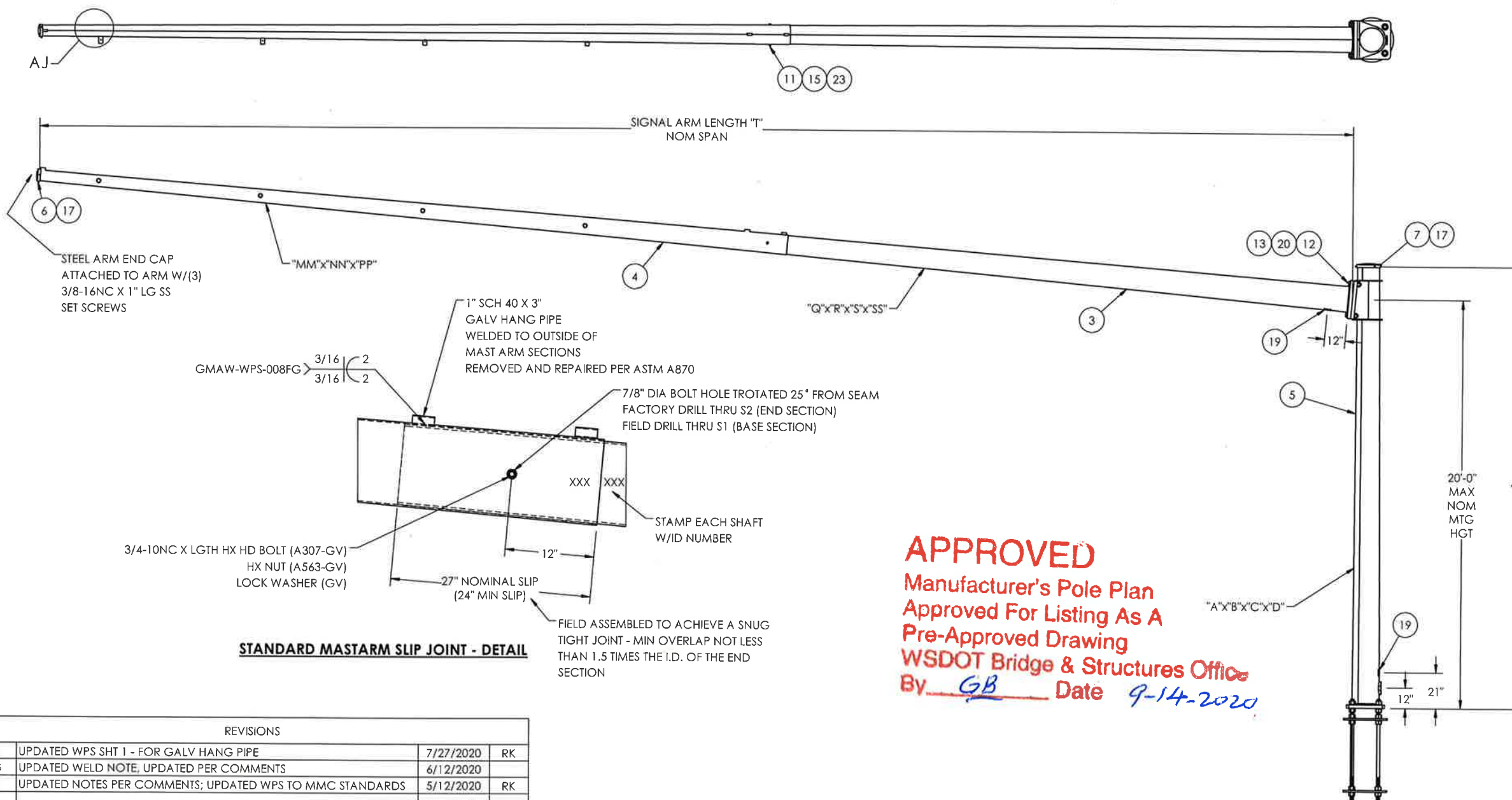
NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION



8-18-20 (EXPIRES 12-18-21)



TOP VIEW ORIENTATION



STANDARD MASTARM SLIP JOINT - DETAIL

APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020

MATERIAL SPECIFICATIONS

POST: ASTM A572 GR55
 BASE PLATE: ASTM A709 GR50
 MAST ARM: ASTM A572 GR55
 MOUNTING PLATE: ASTM A709 GR50
 HARDWARE FINISH: ASTM F2329
 ANCHOR BOLTS: ASTM F1554 GR105
 ANCHOR BOLT NUTS: ASTM A563 GR DH
 ANCHOR BOLT WASHER: ASTM F436
 SIGNAL ARM CONNECTION BOLT: ASTM F3125 GR A325 TYPE 1
 PIPE: ASTM A53 GR B OR ASTM A500 GR B

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS.

WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS
 VORTEX SHED: Y
 FATIGUE CAT: III
 NATURAL WIND GUST: Y
 LUMINAIRE: N/A
 LUMINAIRE WEIGHT: N/A
 SIGN: N/A
 SIGN WEIGHT: N/A
 GALLOPING: N/A
 TRUCK GUST: Y

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS. EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS.
 < 6MM (0.25 IN) MT
 ≥ 6MM (0.25 IN) UT
 A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND AASHTO 2015 WELD INSPECTION SECTION 14.4.4.8

STRUCTURE FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123
 FINISH COAT: -
 COLOR: -
 FEDERAL OR RAL SPEC.: -
 WEIGHT W/GALV.: -
 WEIGHT W/GALV.&PAINT: -
 SURFACE AREA: -
 GAL. OF PAINT: -

MILLERBERND 622 6TH ST. SO.
 WINSTED, MN 55395

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74516	-	WA	1 OF 3

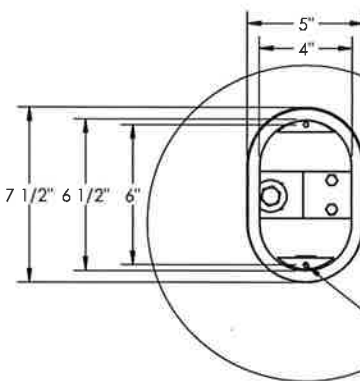
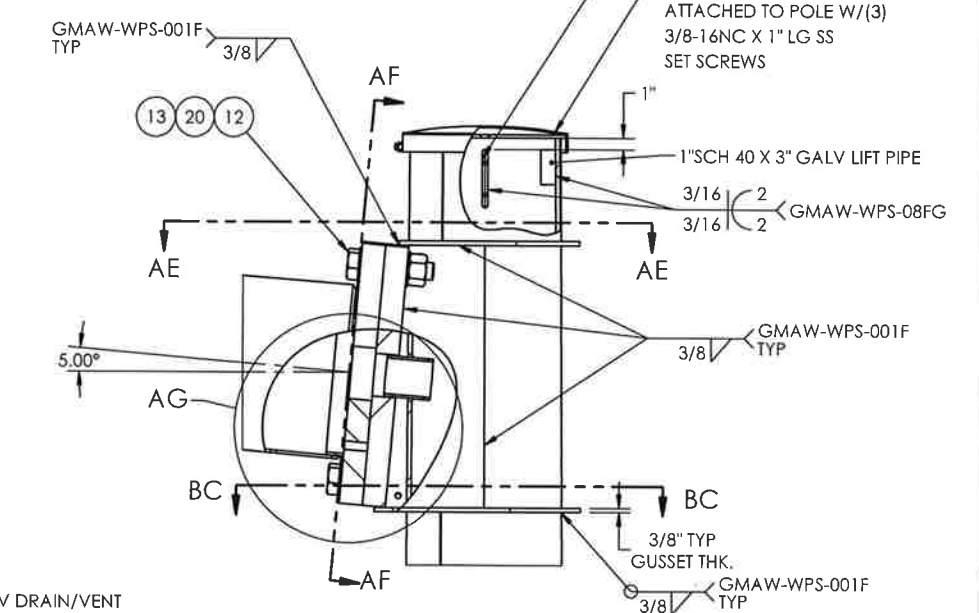
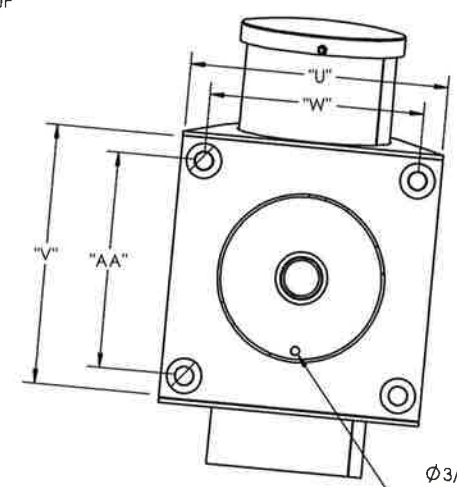
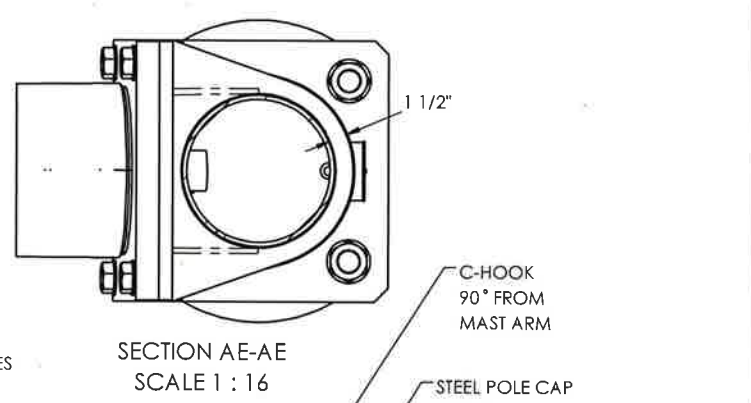
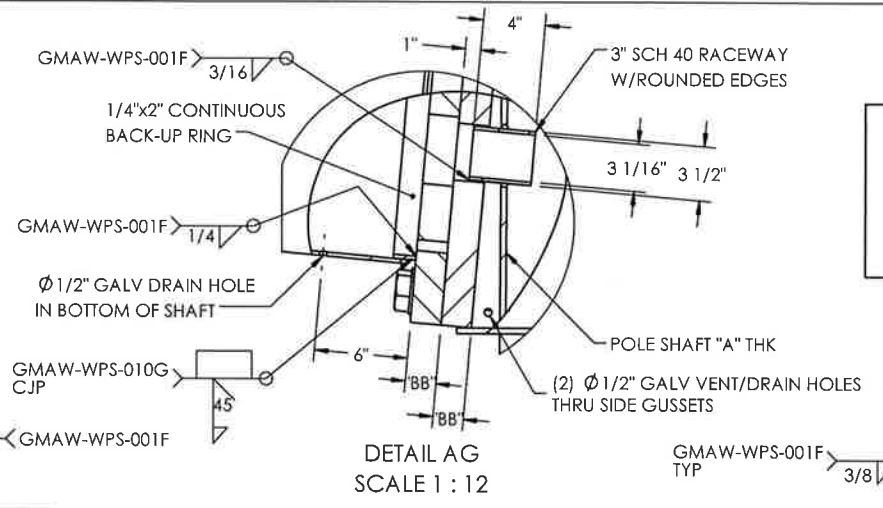
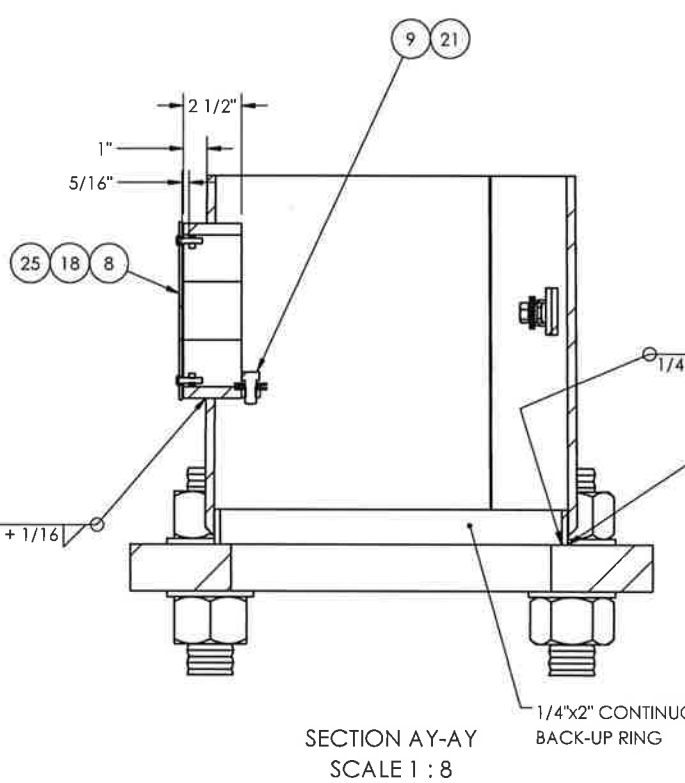
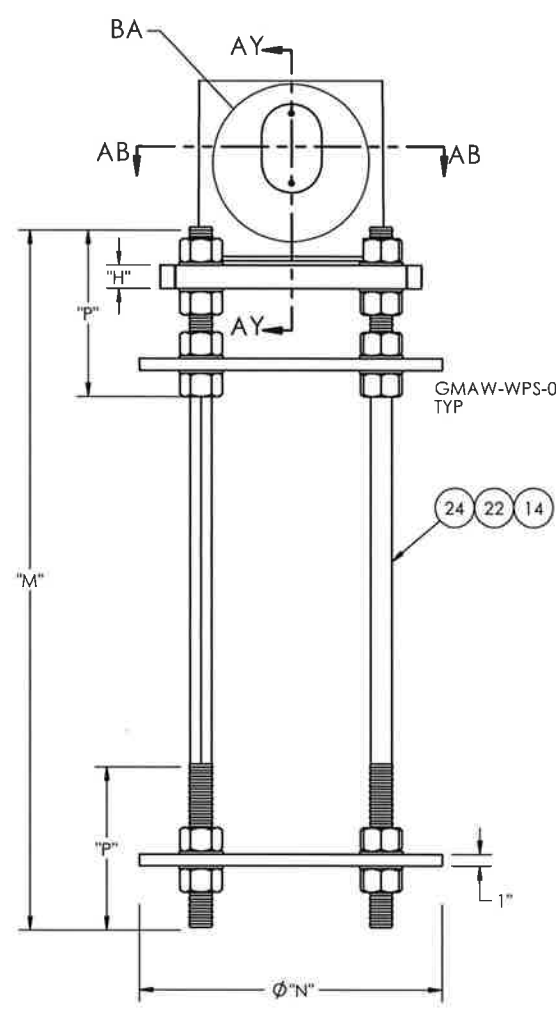
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 SUB TRAFFIC POLES TYPE II

EST. WEIGHT: DRAWING NO:
 74516-WA-TS-II

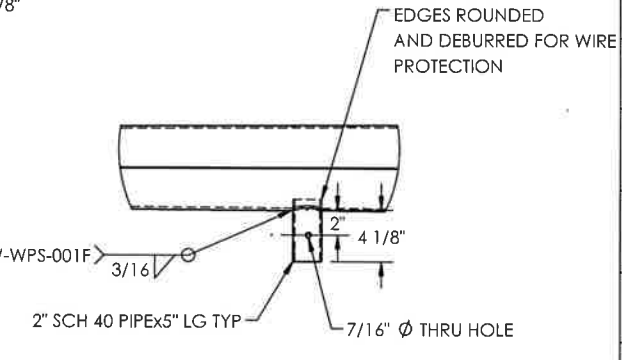
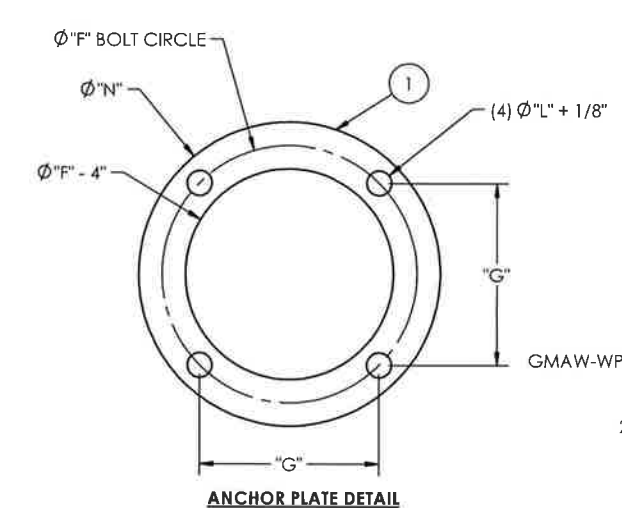
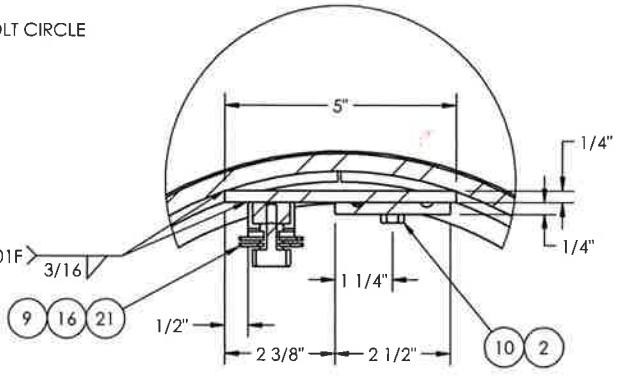
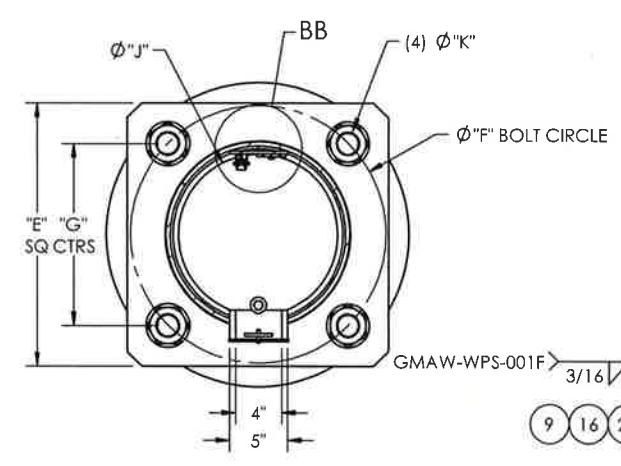
PROJECT NAME:
 STATE OF WASHINGTON
 TRAFFIC POLES - TYPE II

PROJECT LOCATION:
 WA
 DWN BY: REBEKAH DATE: 2/14/17
 CHK BY: DATE:

REVISIONS			
REV.	DESCRIPTION	DATE	DRFT
H	UPDATED WPS SHT 1 - FOR GALV HANG PIPE	7/27/2020	RK
G	UPDATED WELD NOTE, UPDATED PER COMMENTS	6/12/2020	
F	UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/12/2020	RK



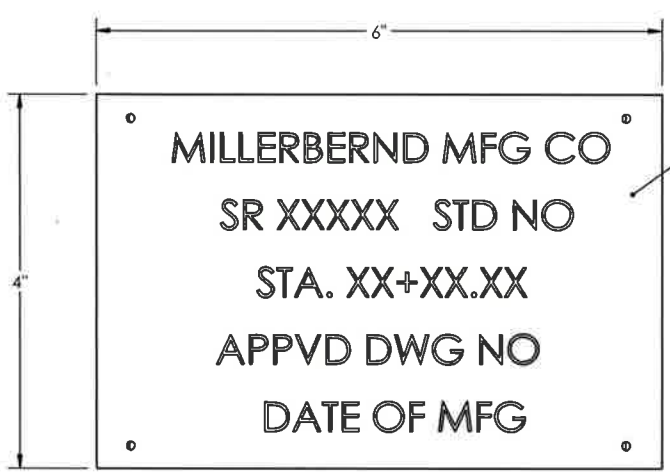
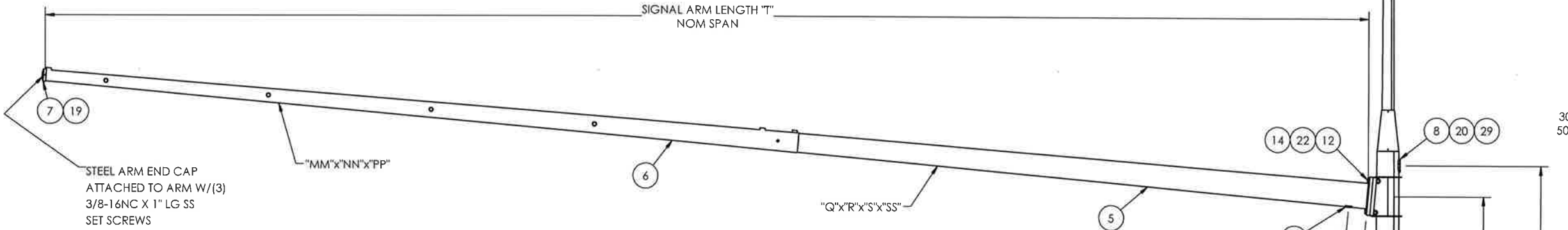
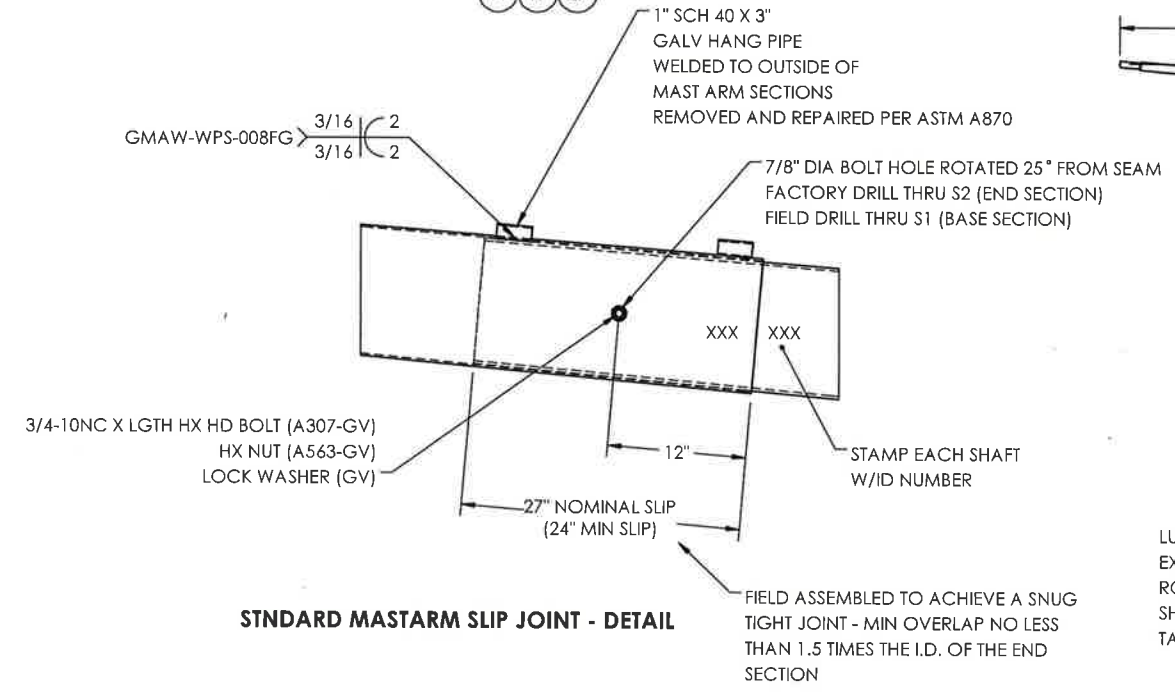
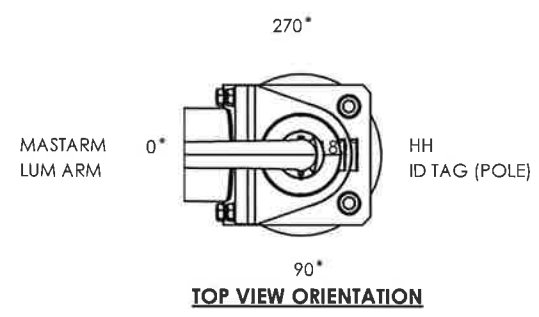
APPROVED
 Manufacturer's Pole Plan
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 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



8-18-20 (EXPIRES 12-18-21)

EDGES ROUNDED AND DEBURRED FOR WIRE PROTECTION

MILLERBERND		622 6TH ST. SO. WINSTED, MN 55395	
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74516	-	WA	3 OF 3
DESCRIPTION: SUB TRAFFIC POLES TYPE II			
EST. WEIGHT:		DRAWING NO: 74516-WA-TS-II	
PROJECT NAME: STATE OF WASHINGTON TRAFFIC POLES - TYPE II			
PROJECT LOCATION: WA			
PROJECT NO.:		CONTROL/CONTRACT NO.:	
DWN BY: REBEKAH		DATE: 2/14/17	
CHK BY:		DATE:	



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 TEXT TO BE STAMPED AS SHOWN IN 5/16" HIGH LETTERS
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G	UPDATED WELD NOTE; UPDATED PER COMMENTS	6/12/2020	RK
F	UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/12/2020	RK

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 LUMINAIRE: N/A TRUCK GUST: Y
 LUMINAIRE WEIGHT: N/A
 SIGN: N/A
 SIGN WEIGHT: N/A

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 FEDERAL OR RAL SPEC.: -
 WEIGHT W/GALV.: -
 WEIGHT W/GALV. & PAINT: -
 SURFACE AREA: -
 GAL. OF PAINT: -



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SALES ORDER NO.:	QTY:	STATE:	SHEET
74516	-	WA	1 OF 4

DESCRIPTION: SUB TRAFFIC POLES TYPE III-J
 EST. WEIGHT: DRAWING NO: 74516-WA-TS-III-J

PROJECT NAME: STATE OF WASHINGTON TRAFFIC POLES - TYPE III-J

PROJECT LOCATION: WA
 DWN BY: REBEKAH DATE: 2/14/17
 CHK BY: DATE:

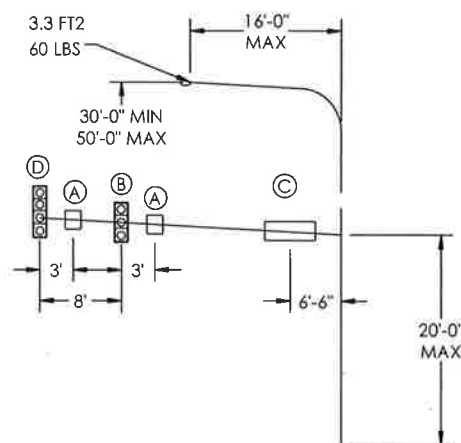
8-18-20 (EXPIRES 12-18-21)

POLE DATA - TRAFFIC SIGNAL - TYPE III - J

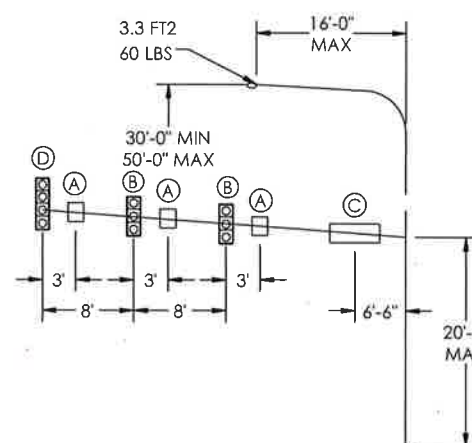
MMC # WA-TS-III-J-MA-LA-LH MA=MAST ARM LENGTH LA = LUM ARM LENGTH LH = LUM MTG HT	QTY	POLE TUBE				BASE DETAIL						ANCHOR BOLT				SIGNAL ARM DATA				SIGNAL ARM ATTACHMENT DATA						MAXIMUM SIGNAL MAST ARM X Y Z (FT3)	LUMINAIRE ARM X Y Z (FT3)	TOTAL STRUCTURE X Y Z (FT3)
		THICK (IN) "A"	BASE O.D. (IN) "B"	TOP O.D. (IN) "C"	LENGTH (FT) "D"	SQUARE "E" (IN)	BOLT CIRCLE "F" (IN)	BOLT CENTERS "G" (IN)	THICKNESS "H" (IN)	BASE OPENING "J" (IN)	HOLE/SLOT "K" (IN)	DIA "L" (IN)	LENGTH "M" (IN)	ANCHOR PLATE O.D. "N" (IN)	THREAD LENGTH "P" (IN)	THICK (IN) "Q"	BASE O.D. (IN) "R"	TOP O.D. (IN) "S"	LENGTH (FT) "T"	"U" (IN)	"V" (IN)	"W" (IN)	"AA" (IN)	"BB" (IN)	ARM OPENING (IN) "CC"			
WA-TS-III-J-MA-LA-LH		5/16	13.5	10.42	22	18 1/2	18	12 3/4	2"	11	1 3/4	1 1/2	22	1/4	9	6.9 THRU 5.5	15' THRU 25'	19 1/2	19 1/2	15 1/2	15 1/2	2	5"	1 1/2-6NC X 6 1/2	807	53	860	
WA-TS-III-J-MA-LA-LH	1460																								1513			
WA-TS-III-J-MA-LA-LH	1985																								2038			
WA-TS-III-J-MA-LA-LH		3/8	16	12.92	22	22 1/2	22	15 9/16	2"	13 1/2	2 1/4	2	26	SEE SLIP TABLE	13.5	SEE SLIP TABLE	51' - 55'	22 1/2	22 1/2	18 1/2	18/ 1/2	4 1/2"	1 1/2-6NC X 6 1/2	2659	53	2712		
WA-TS-III-J-MA-LA-LH	3005																							3058				
WA-TS-III-J-MA-LA-LH	3697																							3750				

MUST SPECIFY MASTARM LENGTH AT TIME OF ORDER
 REPLACE "MA" IN PART NUMBER WITH MAST ARM LENGTH AS REQUIRED
 MUST SPEIFY LUM ARM LENGTH AND MOUNTING HEIGHT AT TIME OF ORDER
 REPLACE "LA" IN PART NUMBER WITH LUM ARM LENGTH AS REQUIRED
 REPLACE "LH" IN PART NUMBER WITH LUM ARM MOUNTING HEIGHT AS REQUIRED
 MUST SPECIFY TENON LOCATIONS AT TIME OF ORDER

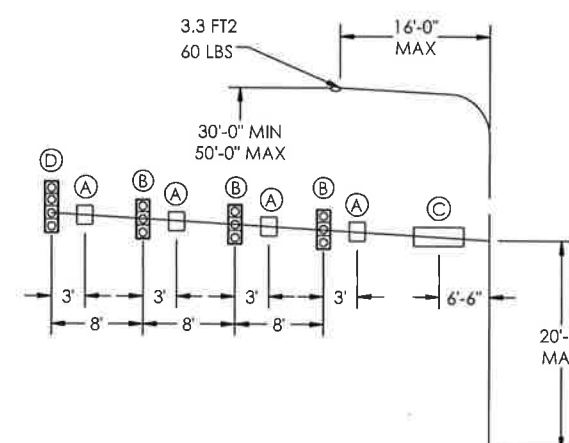
ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	BASE RD "N"	2		X
2	GROUND MTG PLATE	1	X	X
3	WLDMT ARM DAVIT RD	1		X
4	WLDMT POLE SIG RD "A"x"B"x"C"x"D"	1		X
5	WLDMT ARM SIG RD - 1ST SECT	1		X
6	WLDMT ARM SIG RD - 2ND SECT (51' - 65')	1		X
7	WLDMT CAP VENT 7"ID(6.25-6.75) 3 SET SCREW	1		X
8	COVER HH M16C 4 1/4X6 3/4 2 BOLT	2		X
9	BOLT HX HD 1-2-13NC X 1" F593C SS	2	X	
10	BOLT HX HD 1/4-20NC X 1/2 F593C SS	2		
11	BOLT HX HD 3-4-10NC X 12-1-2 A307GV	1		
12	BOLT HVYHXHD 1-1-2-6 X 6-1-2 F3125 A325 TYPE 1 GV	4		
13	BOLT HX HD FT 5/8-11NC A307GV	1		
14	NUT HVY HX 1-1-2-6NC A563 BR(.03)(DH) GV	4		
15	NUT HVY HX "L" ASTM A563 GR DH GV	24		
16	NUT HX 5-8-11NC G2 GV	1		
17	NUT HX 3-4-10NC G5 GV	1		
18	NUT SQ 1-2-13 SS	1		
19	SCRW ST SQ HD 3/8-16NC X 1" SS	3		
20	SCRW HX SK BT HD 1-4-20NC X 1 SS	4		
21	WASHINGTON ID TAG W/ RIVETS	3	X	
22	WASHER FLAT 1-1/2 SAE ASTM F436 GV	8		
23	WASH F.56 IDX1.375ODX.091 THK BRASS COMM. BRASS	4	X	
24	WASHER FLAT 5/8 GV	2		
25	WASHER FLAT"L" ASTM F436 GV	24		
26	WASHER LOCK 5/8 GV	1		
27	WASHER LOCK 3/4 GV	1		
28	Ø"L" X "M" LG ANCHOR BOLT	4		
29	GASKET HH M16	2	X	



THRU 25' SIGNAL ARMS



26' THRU 45' SIGNAL ARMS



46' THRU 65' SIGNAL ARMS

PROJ.	AREA FT2;	WEIGHT (LBS)	DEVICE	DESCRIPTION
ⓓ	SIGNAL	12" - 4 SECTION	SIGNAL W/BACKPLATE	11.6 86
Ⓒ	SIGN	24" x 48"	STREET NAME SIGN	14 70
Ⓑ	SIGNAL	12" - 3 SECTION	SIGNAL WITH BACKPLATES	9.2 60
Ⓐ	SIGN	30" x 24"	DIRECTIONAL SIGN	5.0 60

MAXIMUM MAST ARM XYZ VALUES INCLUDE SIGNS AND SIGNALS.
 LUMINAIRE ARM XYZ IS BASED ON A 16'-0" SPAN.
 TOTAL STRUCTURE XYZ VALUE & LUMINAIRE ARM XYZ VALUE TOGETHER.

ARM SPAN "T"	BASE SECTION			END SECTION		
	THICK (IN) "Q"	TOP O.D. (IN) "TT"	SHAFT LENGTH "SS"	THICK (IN) "MM"	BASE O.D. (IN) "NN"	SHAFT LENGTH "PP"
51' THRU 55'	1/4	10.7	20'	3/16	11.64	33'-6" THRU 37'-6"
56' THRU 65'	1/4	10.8	30'	3/16	11.74	28'-6" THRU 37'-6"

APPROVED
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 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



8-18-20 (EXPIRES 12-18-21)

MILLERBERND 622 6TH ST. SO. WINSTED, MN 55395

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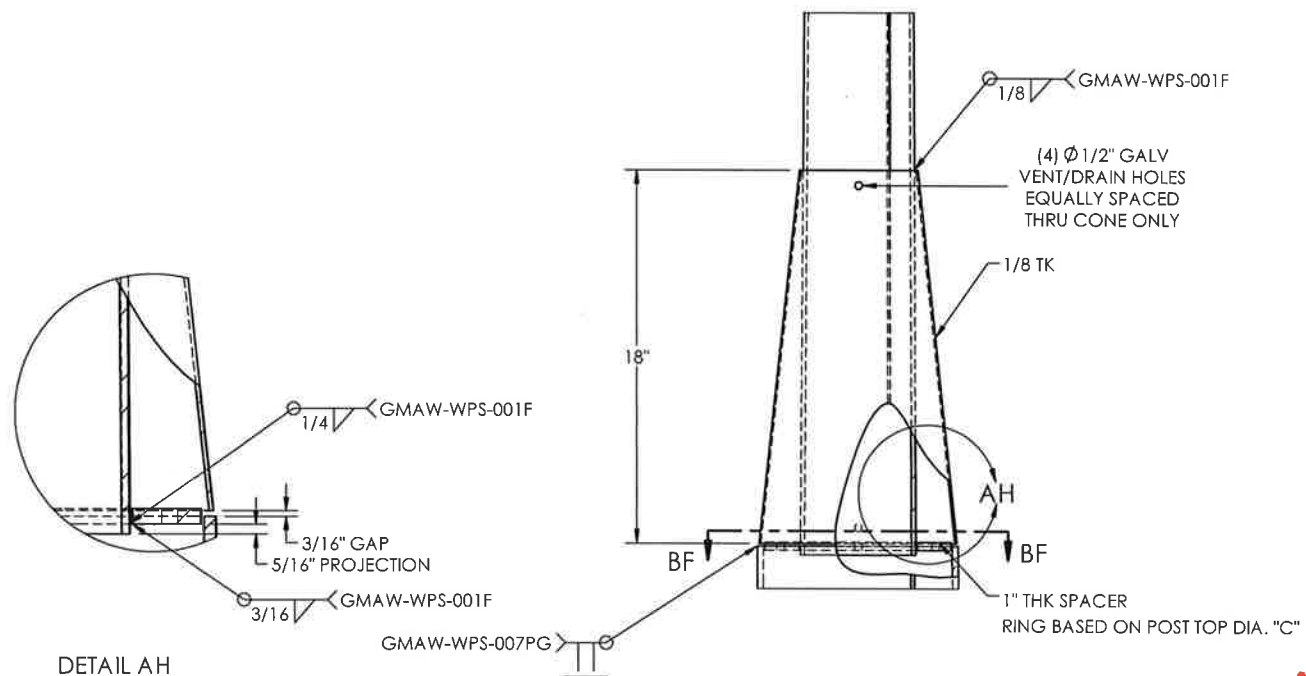
DESCRIPTION:
SUB TRAFFIC POLES TYPE III-J

EST. WEIGHT: DRAWING NO:
74516-WA-TS-III-J

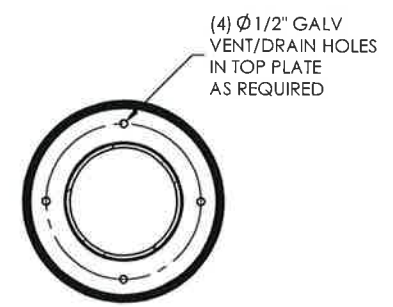
PROJECT NAME:
STATE OF WASHINGTON TRAFFIC POLES - TYPE III-J

PROJECT LOCATION:
WA

DWN BY: REBEKAH	DATE: 2/14/17
CHK BY:	DATE:

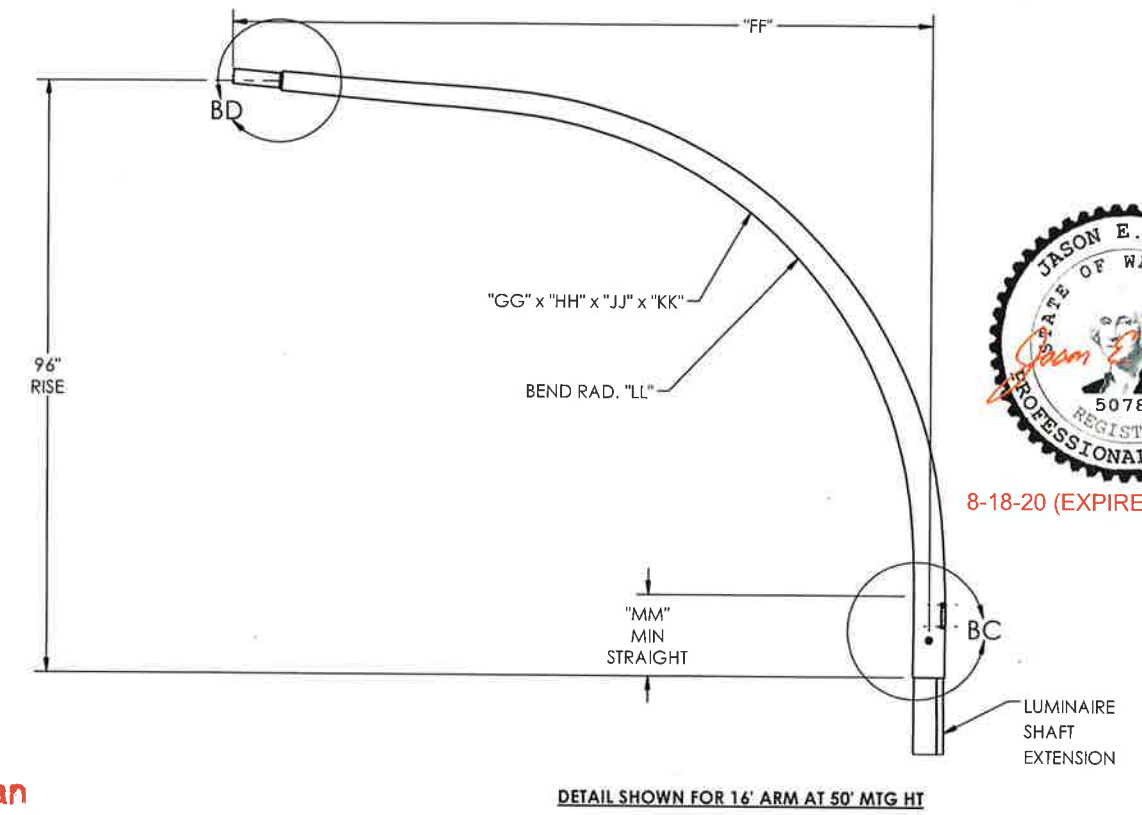


DETAIL AH
SCALE 1 : 6



SECTION BF-BF
SCALE 1 : 12

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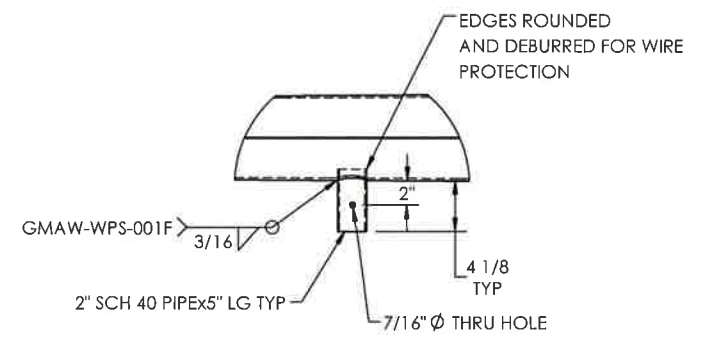
DETAIL SHOWN FOR 16' ARM AT 50' MTG HT



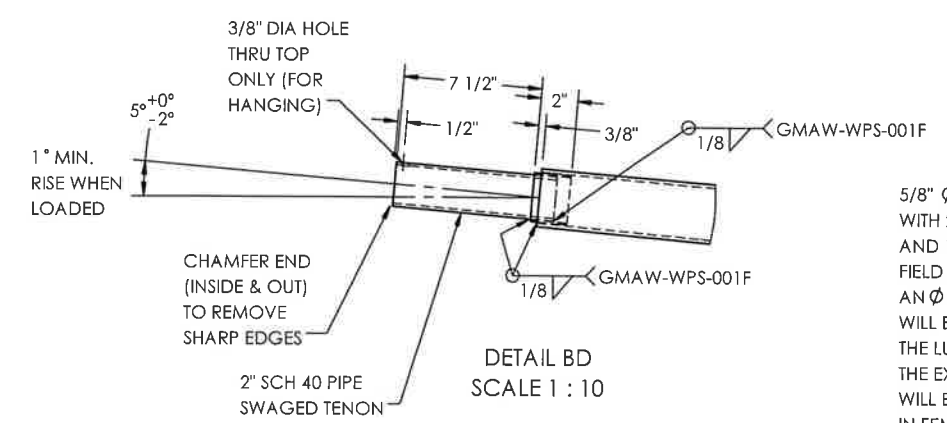
8-18-20 (EXPIRES 12-18-21)

DAVIT LUMINAIRE DATA								
MMC #	QTY	SPAN (FT) "FF"	TK (IN) "GG"	BASE OD (IN) "HH"	END OD (IN) "JJ"	LENGTH (FT) "KK"	BEND RAD (FT) "LL"	MIN STRAIGHT (IN) "MM"
		6'	11 GA	6.0	4.41	11'-4"	6'-0"	21.38"
		8'	11 GA	6.0	4.23	12'-8"		21.31"
		10'	11 GA	6.0	3.95	14'-6"		19.19"
		12'	11 GA	6.0	3.66	16'-9"		22.25"
		14'	11 GA	6.0	4.69	18'-2"		14.93"
		16'	11 GA	6.0	3.2	20'-0"		12.87"

NOTE: 11GA = .1196"

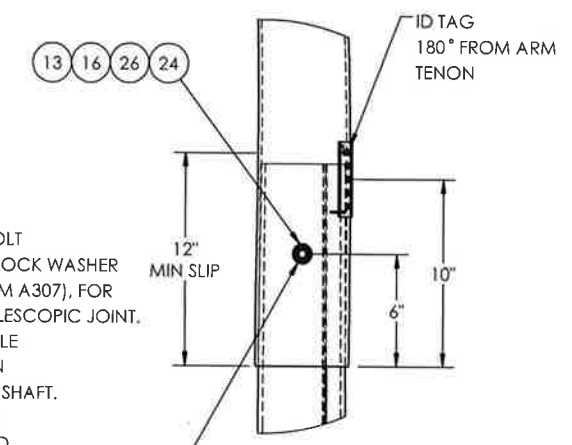


DETAIL AJ
SCALE 1 : 15



DETAIL BD
SCALE 1 : 10

5/8" Ø HEX HEAD BOLT WITH 2 WASHERS, 1 LOCK WASHER AND 1 HEX NUT (ASTM A307), FOR FIELD ASSEMBLED TELESCOPIC JOINT. AN Ø 11/16 THRU HOLE WILL BE PROVIDED IN THE LUMINAIRE ARM SHAFT. THE EXTENSION TUBE WILL BE FIELD DRILLED IN FEMALE SHAFT AFTER POSITIONING OF THE ARM



DETAIL BC
SCALE 1 : 10

MILLERBERND 622 6TH ST. SO. WINSTED, MN 55395

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74516	-	WA	4 OF 4

DESCRIPTION: SUB TRAFFIC POLES TYPE III-J

EST. WEIGHT: DRAWING NO: 74516-WA-TS-III-J

PROJECT NAME: STATE OF WASHINGTON TRAFFIC POLES - TYPE III-J

PROJECT LOCATION: WA

DWN BY: REBEKAH	DATE: 2/14/17
CHK BY:	DATE:

POLE DATA - PED POLE - FIXED BASE														
MMC #	QTY	POLE TYPE	POLE TUBE				BASE DETAIL					ANCHOR BOLT		
			THICK (IN) "A"	BASE DIA (IN) "B"	TOP DIA (IN) "C"	LENGTH (FT) "D"	SQUARE "S" (IN)	BOLT CIRCLE "F" (IN)	BOLT CENTERS "M" (IN)	THICKNESS "G" (IN)	HOLE/SLOT "H" (IN)	DIA "J" (IN) (FULLY THREADED)	LENGTH "K" (IN)	ANCHOR PLATE O.D. "L" (IN)
WA-PED-FB-PS-78		PS	11 GA	6.5	5.43	7'-8"	9"	9"	6 3/8"	3/4	1	3/4	30	12"
WA-PED-FB-I-98		I			5.15	9'-8"								
WA-PED-FB-RM-98		RAMP METER			5.15	9'-8"								
WA-PED-FB-FB-138		FLASHING BEACON			4.59	13'-8"								

MATERIAL SPECIFICATIONS
 POST: ASTM A572 GR55
 BASE PLATE: ASTM A709 GR 50
 MAST ARM: N/A
 MOUNTING PLATE: N/A
 HARDWARE FINISH: ASTM F2329
 CONNECTION BOLTS: ASTM F1554 GR55
 CONNECTION NUTS:
 CONNECTION WASHERS:
 ANCHOR BOLTS:
 ANCHOR BOLT NUTS: ASTM A563 GR DH
 ANCHOR BOLT WASHER: ASTM F436
 WELDING ELBOW: N/A
 PIPE: ASTM A53 GR B OR ASTM A500 GR B

DESIGN CRITERIA
 2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS.
 WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS
 VORTEX SHED: N/A
 FATIGUE CAT: N/A
 NATURAL WIND GUST: N/A
 LUMINAIRE: N/A
 LUMINAIRE WEIGHT: N/A
 SIGN: N/A
 SIGN WEIGHT: N/A

WELD SPECIFICATION
 THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS, EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES; FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

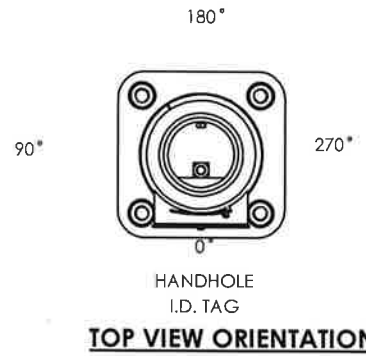
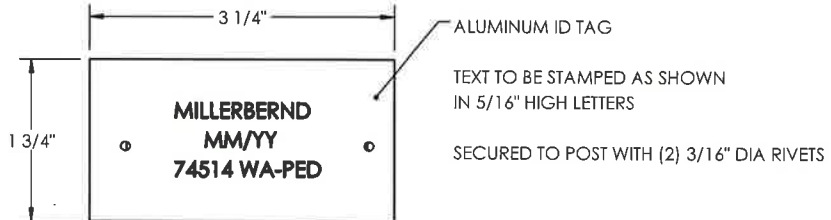
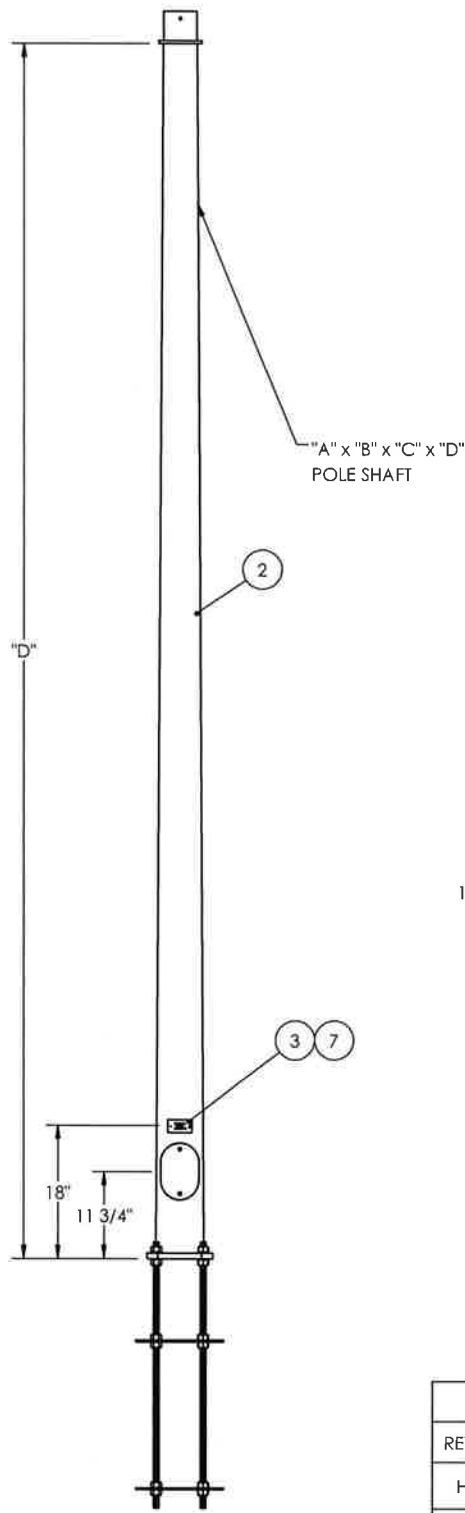
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013.5.15.5-WELD INSP) THICKNESS.
 < 6MM (0.25 IN) MT
 ≥ 6MM (0.25 IN) UT
 A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).
 WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND 2015 AASHTO WELD INSPECTION SECTION 14.4.4.8

STRUCTURE FINISH SPECIFICATION
 GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123
 FINISH COAT: -
 COLOR: -
 FEDERAL OR RAL SPEC.: -
 WEIGHT W/GALV.: -
 WEIGHT W/GALV. & PAINT: -
 SURFACE AREA: -
 GAL. OF PAINT: -

MILLERBERND 622 6TH ST. SO. WINSTED, MN 55395

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74514	-	WA	1 OF 2
DESCRIPTION: SUB POLE PED RD - FIXED BASE			
EST. WEIGHT:		DRAWING NO: 74514-WA-PED-FB	
PROJECT NAME: STATE OF WASHINGTON PED POLES			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 02-16-2017	
CHK BY:		DATE:	



APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020

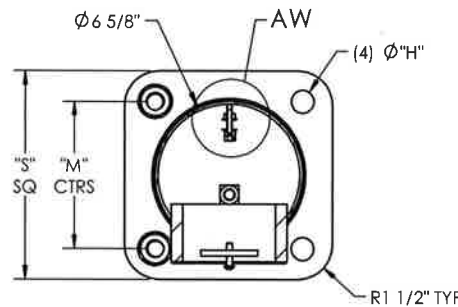
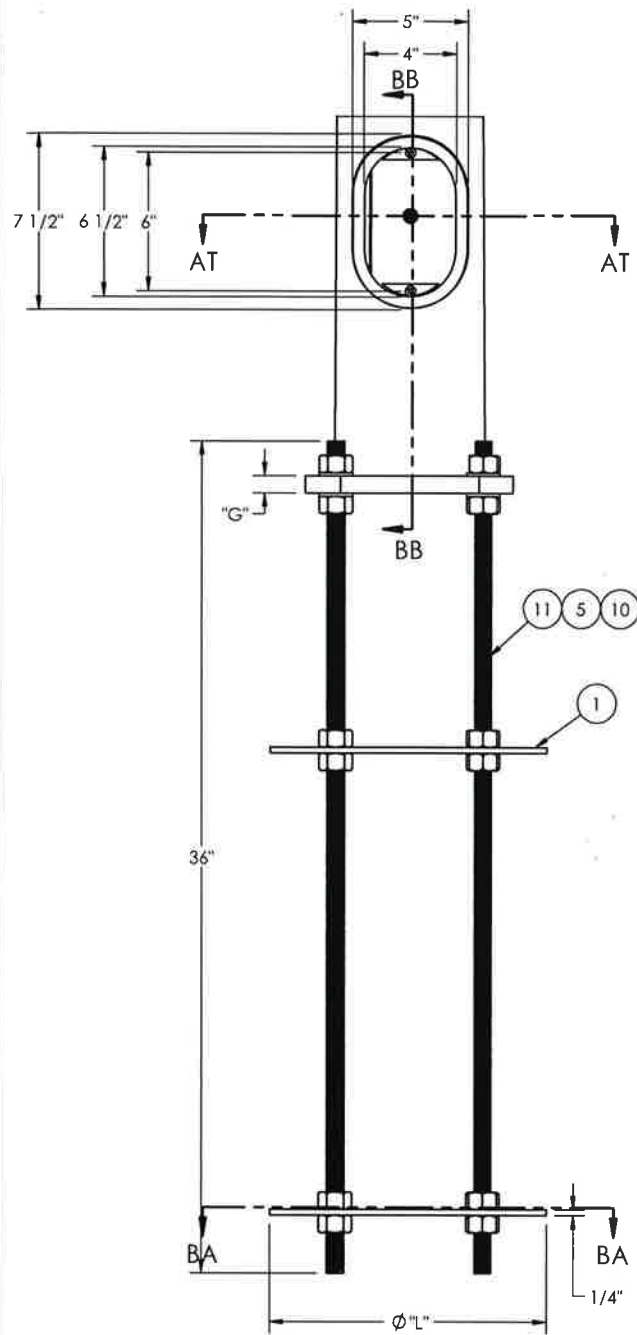
NOTE: FOR NOTE AT WELD SYMBOL TAIL SEE WELDING PROCEDURE SPECIFICATION

REVISIONS			
REV.	DESCRIPTION	DATE	DRFT
H	UPDATED WELD NOTE, UPDATED PER COMMENTS	6/12/2020	RK
G	UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/12/2020	RK
F	ADDED 3/8" DIA GALV HANG HOLE IN TENON	1/22/2020	RK

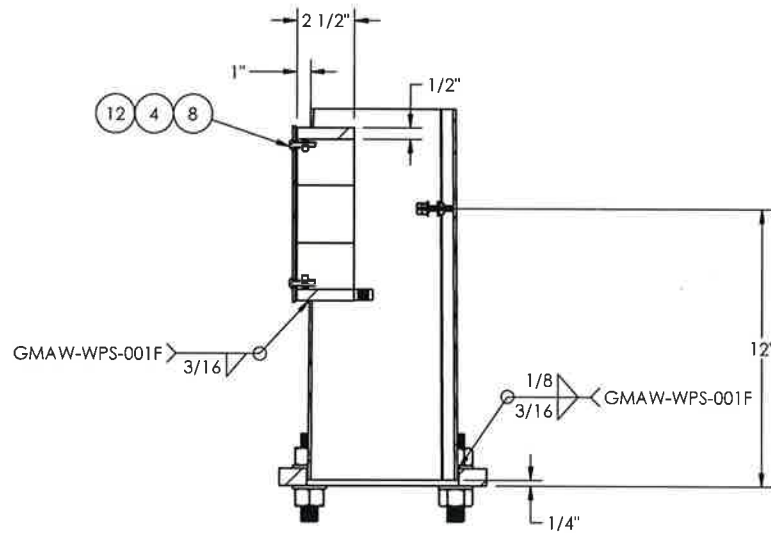


8-18-20 (EXPIRES 12-18-21)

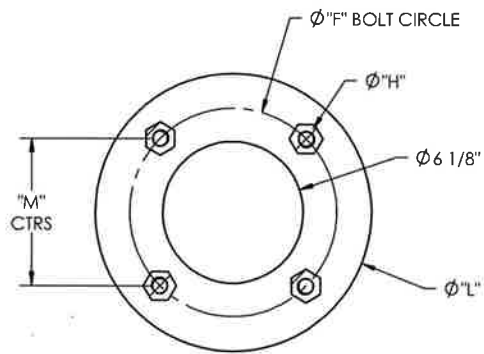
ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	BASE RD 0.25 x 12"	2	X	
2	WLDMT POLE PED "A"x"B"x"C"x"D"	1		X
3	I.D. TAG - WA	1	X	
4	COVER HH M16C 4 1/4X6 3/4 2 BOLT	1		X
5	NUT HVY HX 3-4-10NC DH GV	24		
6	NUTHX1-4-20SS	3	X	
7	RIVET POP 3/16X1/2X3/8 HD SS	2		
8	SCRW HX SK BT HD 1-4-20NC X 1 SS	2		
9	WASHER FLAT 1/4 SS 5/8 OD ASME B18.22.1 SS	2	X	
10	WASHER FLAT 3/4 GV	8		
11	ANCHOR BOLT 3/4X36 LG (FULLY THREADED)	4		
12	GASKET HH M16	1	X	



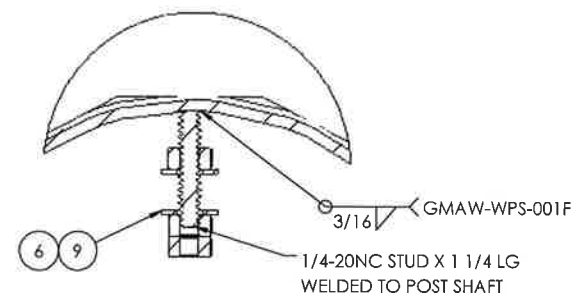
SECTION AT-AT
SCALE 1 : 8



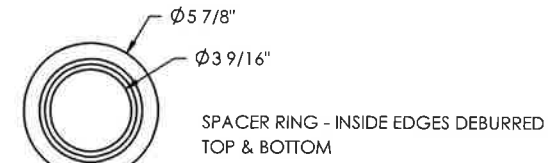
SECTION BB-BB
SCALE 1 : 8



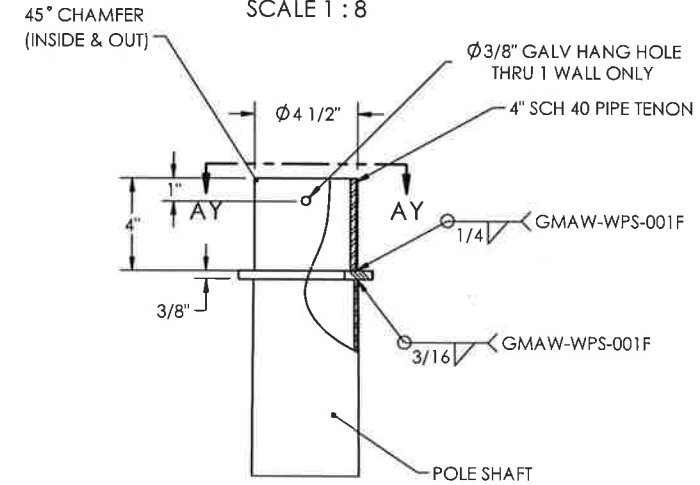
SECTION BA-BA
SCALE 1 : 8



DETAIL AW
SCALE 1 : 2



SECTION AY-AY
SCALE 1 : 8




POLE TOP TENON DETAIL

APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
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 WSDOT Bridge & Structures Office
 By SB Date 9/4/2020

MILLERBERND		622 6TH ST. SO. WINSTED, MN 55395	
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74514	-	WA	2 OF 2
DESCRIPTION: SUB POLE PED RD - FIXED BASE			
EST. WEIGHT:		DRAWING NO:	
		74514-WA-PED-FB	
PROJECT NAME: STATE OF WASHINGTON PED POLES			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 02-16-2017	
CHK BY:		DATE:	



8-18-20 (EXPIRES 12-18-21)

POLE DATA - PED POLE - PUSH BUTTON										
MMC #	QTY	POLE TYPE	BASE DETAIL					ANCHOR BOLT		
			SQUARE "S" (IN)	BOLT CIRCLE "F" (IN)	BOLT CENTERS "M" (IN)	THICKNESS "G" (IN)	HOLE/SLOT "H" (IN)	DIA "J" (IN) (FULLY THREADED)	LENGTH "K" (IN)	ANCHOR PLATE O.D. "L" (IN)
WA-PED-PBB-5		PPB	7"	6"	4 1/4"	1/2	5/8	1/2	18	8" 

MATERIAL SPECIFICATIONS

POST: ASTM A572 GR55
 BASE PLATE: ASTM A709 GR 50
 MAST ARM: N/A
 MOUNTING PLATE: N/A
 HARDWARE FINISH: ASTM F2329
 CONNECTION BOLTS:
 CONNECTION NUTS:
 CONNECTION WASHERS:
 ANCHOR BOLTS: ASTM F1554 GR55
 ANCHOR BOLT NUTS: ASTM A563 GR DH
 ANCHOR BOLT WASHER: ASTM F436
 WELDING ELBOW: N/A
 PIPE: ASTM A53 GR B OR ASTM A500 GR B

DESIGN CRITERIA

2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS.

WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS
 VORTEX SHED: N/A
 FATIGUE CAT: N/A
 NATURAL WIND GUST: N/A
 LUMINAIRE: N/A
 LUMINAIRE WEIGHT: N/A
 SIGN: N/A
 SIGN WEIGHT: N/A

WELD SPECIFICATION

THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS. EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER; 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS. < 6MM (0.25 IN) MT ≥ 6MM (0.25 IN) UT
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WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND 2015 AASHTO WELD INSPECTION SECTION 14.4.4.8

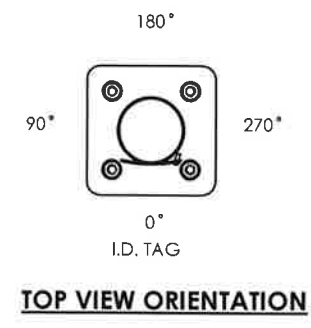
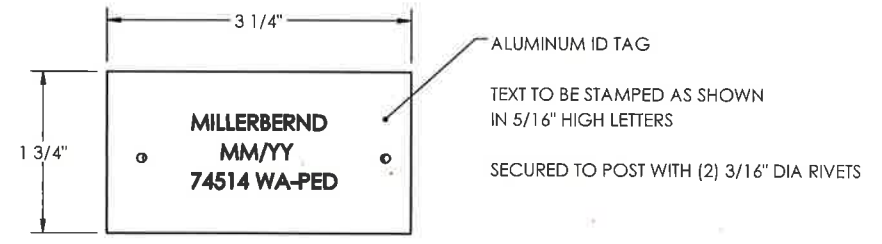
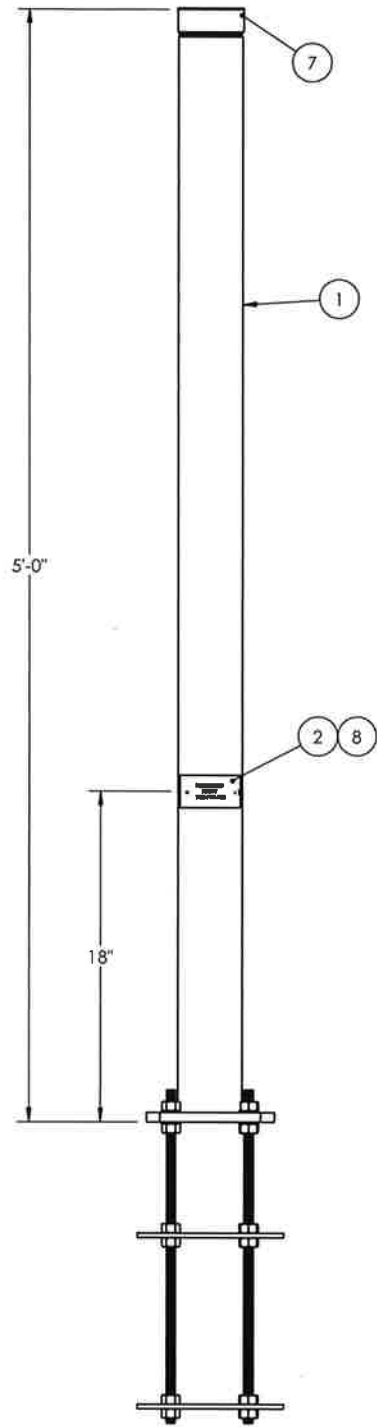
STRUCTURE FINISH SPECIFICATION

GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123
 FINISH COAT: -
 COLOR: -
 FEDERAL OR RAL SPEC.: -
 WEIGHT W/GALV.: -
 WEIGHT W/GALV. & PAINT: -
 SURFACE AREA: -
 GAL. OF PAINT: -

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74514	-	WA	1 OF 2
DESCRIPTION:			
SUB POLE PED PUSH BUTTON			
EST. WEIGHT:		DRAWING NO:	
		74514-WA-PED-PPB	
PROJECT NAME:			
STATE OF WASHINGTON PED POLES			
PROJECT LOCATION:			
WA			
DWN BY: REBEKAH		DATE: 02-16-2017	
CHK BY:		DATE:	



APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020

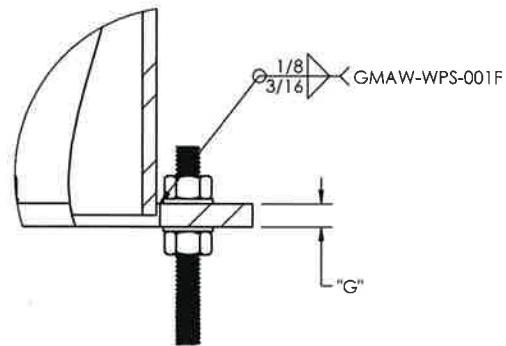
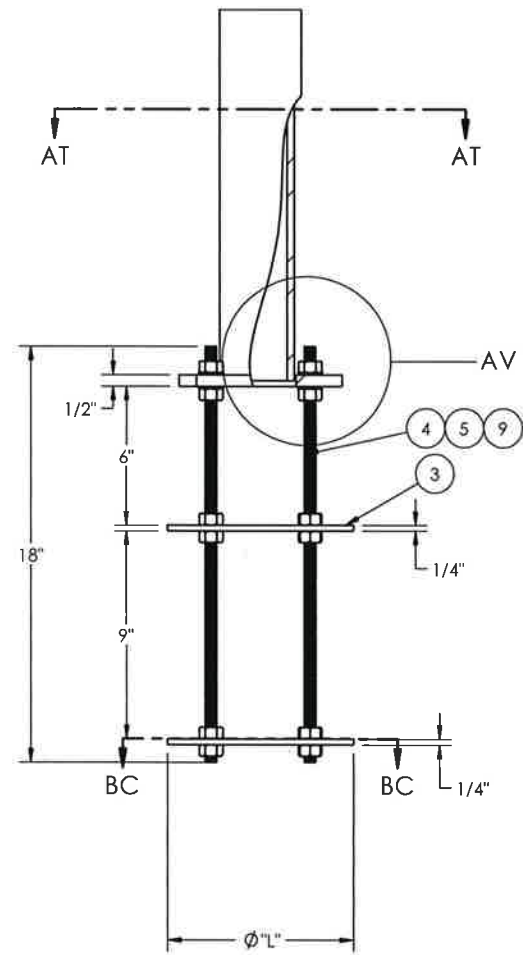
NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION

ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	WLDMT POLE PED PIPE 3 1/2x5'0 (3" SCH 40)	1		X
2	I.D. TAG - WA	1	X	
3	BASE RD 1/4" x 8"	2		X
4	ANCHOR BOLT 1/2X18" LG (FULLY THREADED)	4		
5	NUT HVY HX 1-2-13NC A563 GV (DH)	24		
6	NUTHX1-4-20SS	3		
7	CAP THD 3" (3 1/2" OD)	1		X
8	RIVET POP 3/16X1/2X3/8 HD SS	2	X	
9	WASHER FLAT 1/2 GV	8		
10	WASHER FLAT 1/4 SS 5/8 OD ASME B18.22.1 SS	2		

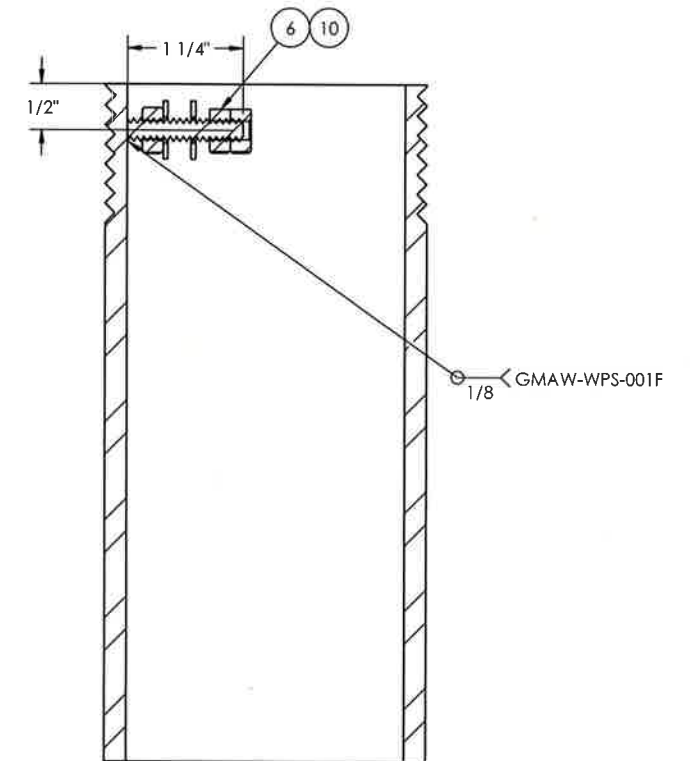
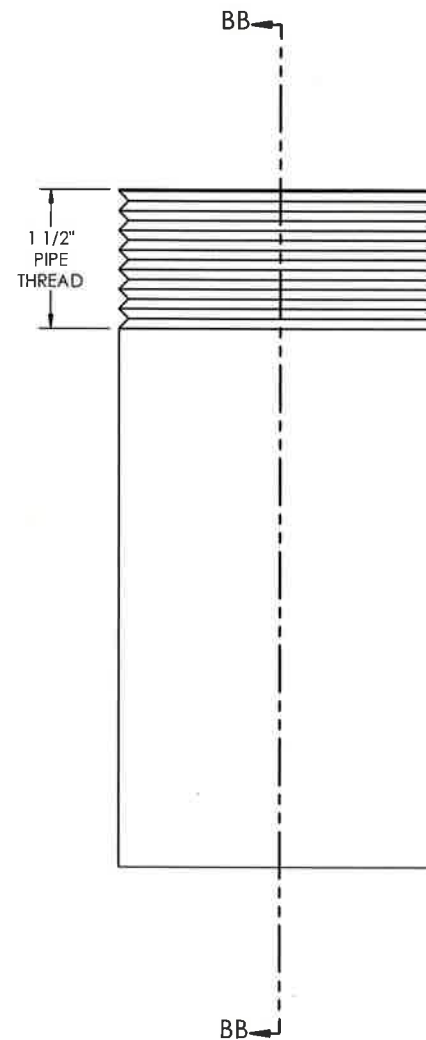


8-18-20 (EXPIRES 12-18-21)

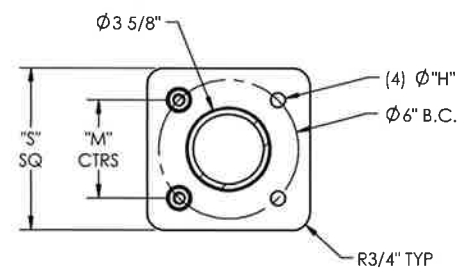
REVISIONS			
REV.	DESCRIPTION	DATE	DRFT
H	UPDATED WELD NOTE	6/12/2020	RK
G	UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/12/2020	RK
F	UPDATED A.BOLTS ON SHT 2 TO REFELCT 18", CLARIFIED STRAIGHT THREADS FOR PIPE	1/22/2020	RK



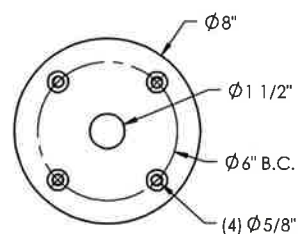
DETAIL AV
SCALE 1 : 4



SECTION BB-BB
SCALE 1 : 2



SECTION AT-AT
SCALE 1 : 8



SECTION BC-BC
SCALE 1 : 8

APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



8-18-20 (EXPIRES 12-18-21)

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74514	-	WA	2 OF 2
DESCRIPTION: SUB POLE PED PUSH BUTTON			
EST. WEIGHT:		DRAWING NO: 74514-WA-PED-PPB	
PROJECT NAME: STATE OF WASHINGTON PED POLES			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 02-16-2017	
CHK BY:		DATE:	

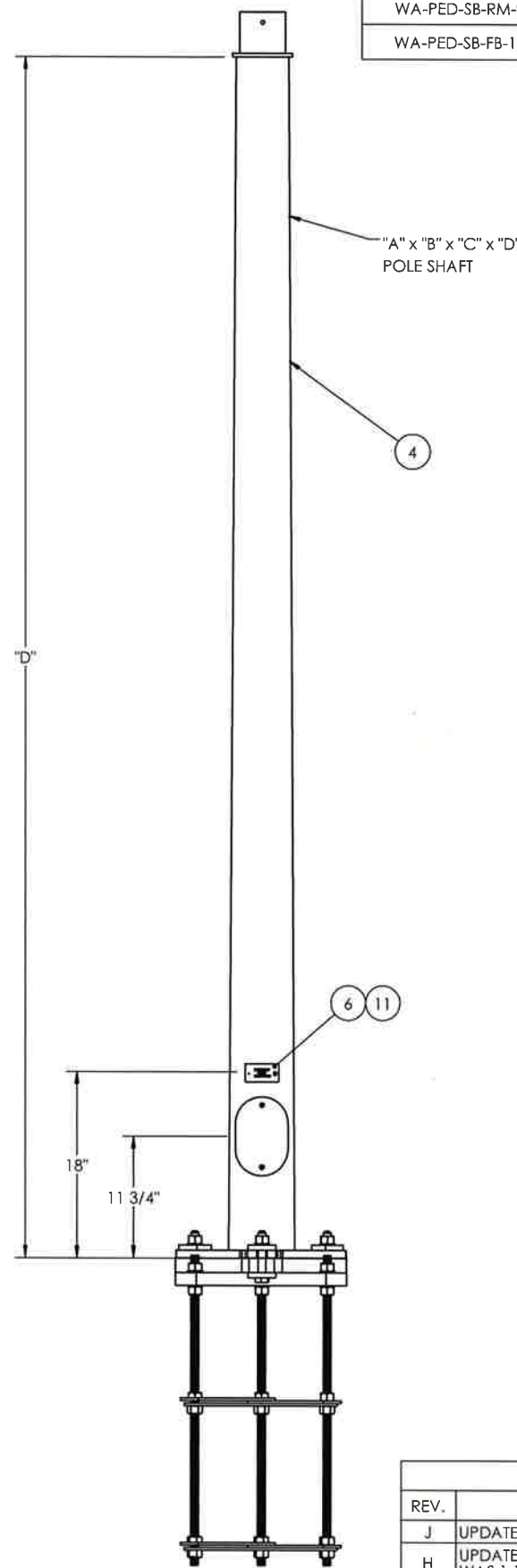
POLE DATA - PED POLE - BREAKAWAY										
MMC #	QTY	POLE TYPE	POLE TUBE				POLE BASE		ANCHOR BOLT	
			THICK (IN) "A"	BASE DIA (IN) "B"	TOP DIA (IN) "C"	LENGTH (FT) "D"	BASE PLATE	DIA	LENGTH	STRAP PLATE
WA-PED-SB-PS-78		PS	11 GA	6.5	5.43	7'-8"	3/4"	3/4" DIA - FULLY THREADED	30"	1/4" x 2" x 15"
WA-PED-SB-I-98		I			5.15	9'-8"				
WA-PED-SB-RM-98		RAMP METER			5.15	9'-8"				
WA-PED-SB-FB-138		FLASHING BEACON			4.59	13'-8"				

MATERIAL SPECIFICATIONS
 POST: ASTM A572 GR55
 BASE PLATE: ASTM A709 GR 50
 MAST ARM: N/A
 MOUNTING PLATE: N/A
 HARDWARE FINISH: ASTM F2329
 CONNECTION BOLTS: ASTM A449 OR F1554 GR 55 OR 105
 CONNECTION NUTS:
 CONNECTION WASHERS:
 ANCHOR BOLTS: ASTM F1554 GR55
 ANCHOR BOLT NUTS: ASTM A563 GR DH
 ANCHOR BOLT WASHER: ASTM F436
 KEEPER PLATE/COATING: ASTM A653 GR 33/G90

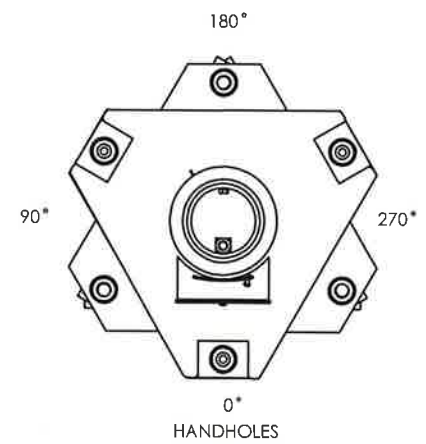
DESIGN CRITERIA
 2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS.
 WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS
 VORTEX SHED: N/A
 FATIGUE CAT: N/A
 NATURAL WIND GUST: N/A
 LUMINAIRE: N/A
 LUMINAIRE WEIGHT: N/A
 SIGN: N/A
 SIGN WEIGHT: N/A
 GALLOPING: N/A
 TRUCK GUST: N/A

WELD SPECIFICATION
 THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 8" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS. EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.
 WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS, < 6MM (0.25 IN) MT
 ≥ 6MM (0.25 IN) UT
 A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).
 WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND 2015 AASHTO WELD INSPECTION SECTION 14.4.4.8

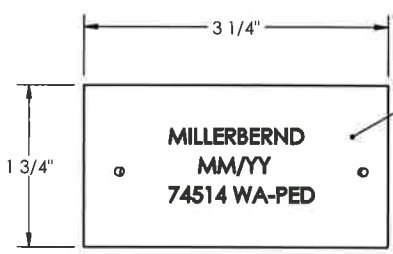
STRUCTURE FINISH SPECIFICATION
 GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123
 FINISH COAT: -
 COLOR: -
 FEDERAL OR RAL SPEC.: -
 WEIGHT W/GALV.: -
 WEIGHT W/GALV. & PAINT: -
 SURFACE AREA: -
 GAL. OF PAINT: -



NOTE: 11 GA SHAFT MATERIAL = .1196" THK



TOP VIEW ORIENTATION



ALUMINUM ID TAG
 TEXT TO BE STAMPED AS SHOWN IN 5/16" HIGH LETTERS
 SECURED TO POST WITH (2) 3/16" DIA RIVETS

NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION

APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-202

SLIP BASE

FIXED BASE



8-18-20 (EXPIRES 12-18-21)

ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	KEEPER PLATE TRI	1		X
2	TEMPLATE 2X1/4X15	6		X
3	WASHER PLATE A36 OR A709 GR 50 (1/2x2x2 3/4)	6		X
4	WLDMT POLE PED "A"x"B"x"C"x"D"	1		X
5	WLDMT BASE SLIP	1		X
6	I.D. TAG - WA	1	X	
7	COVER HH M16C 4 1/4X6 3/4 2 BOLT	1		X
8	BOLT HVYHXHD 3-4-10X 4-1-2 F3125 A325 TYPE 1 GV	3		
9	NUT HVY HX 3-4-10NC HD GV	21		
10	NUTHX1-4-20SS	3		
11	RIVET POP 3/16X1/2X3/8 HD SS	2	X	
12	SCRW HX SK BT HD 1-4-20NC X 1 SS	2		
13	WASHER FLAT 1/4 SS 5/8 OD ASME B18.22.1 SS	2		
14	WASHER FLAT 3/4 GV	9		
15	ANCHOR BOLT 3/4X30 LG (FULLY THREADED)	3		
16	GASKET HH M16	1	X	

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SALES ORDER NO.: 74514 QTY: - STATE: WA SHEET: 1 OF 2

DESCRIPTION: SUB POLE PED RD - SLIP BASE

EST. WEIGHT: DRAWING NO: 74514-WA-PED-SB

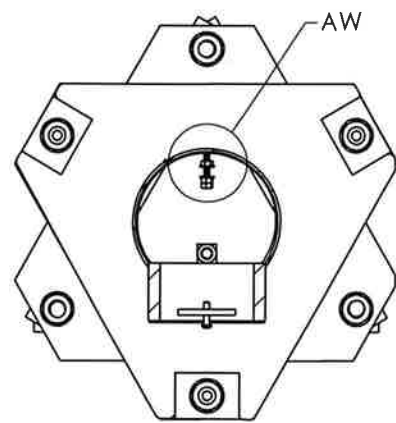
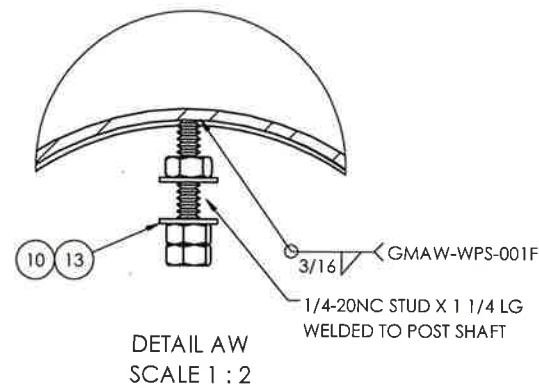
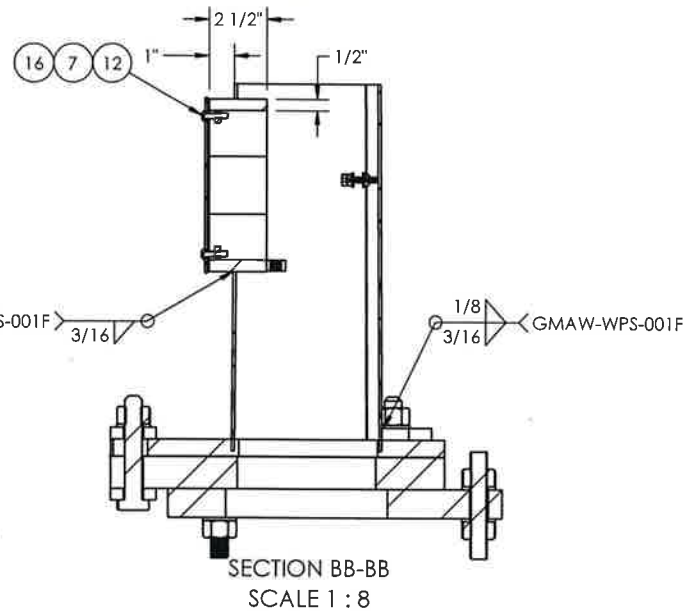
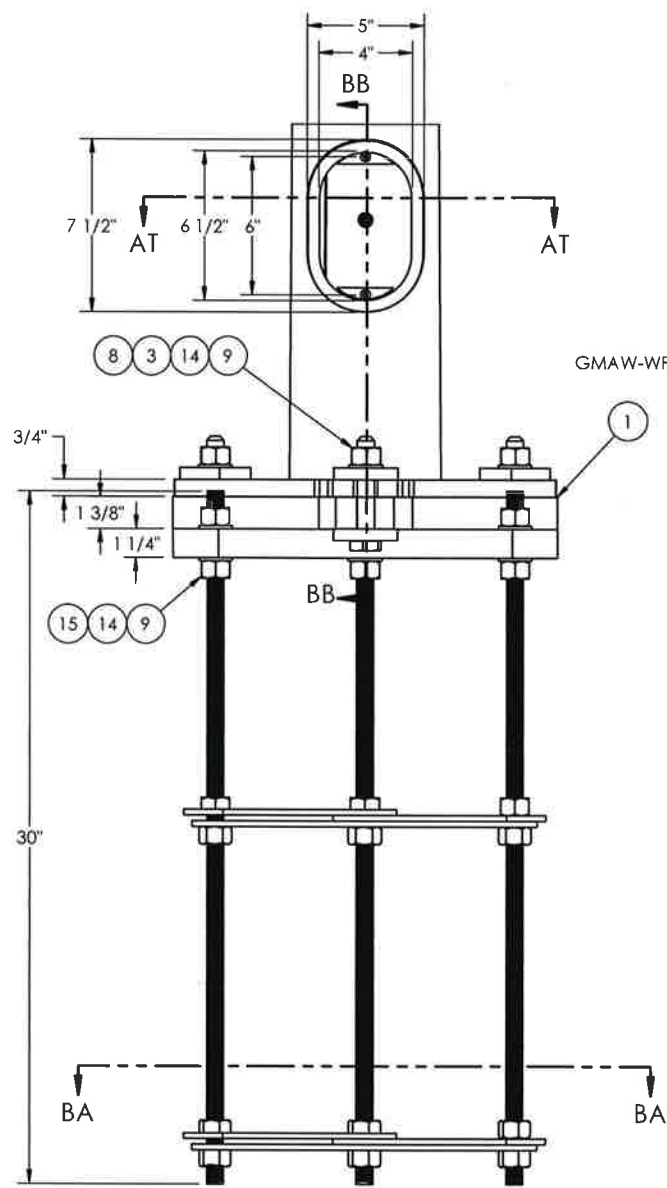
PROJECT NAME: STATE OF WASHINGTON PED POLES

PROJECT LOCATION: WA

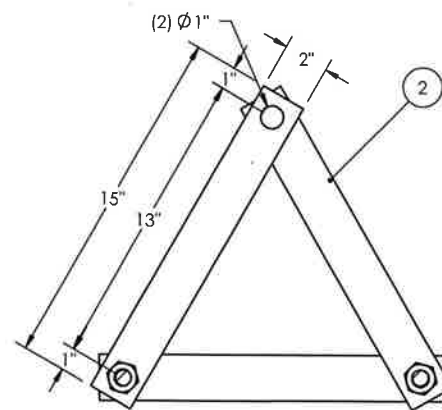
DWN BY: REBEKAH DATE: 02-16-2017

CHK BY: DATE:

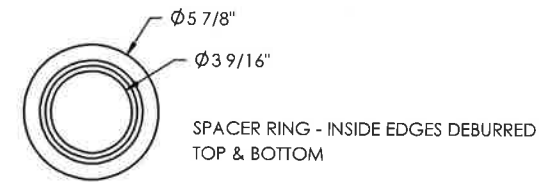
REVISIONS			
REV.	DESCRIPTION	DATE	DRFT
J	UPDATED WELD NOTE, UPDATE PER COMMENTS	6/12/2020	RK
H	UPDATED NOTES PER COMMENTS; BASE PLATE WAS 1 1/4"; UPDATED WPS TO MMC STANDARDS	5/12/2020	RK
G	ADDED 3/8" DIA GALV HANG HOLE IN TENON	1/22/2020	RK



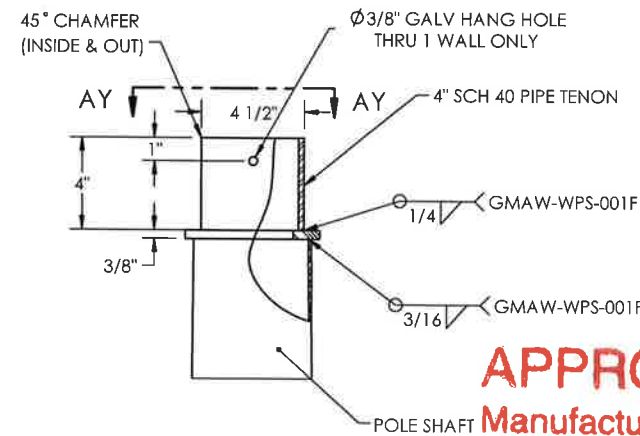
SECTION AT-AT
SCALE 1 : 8



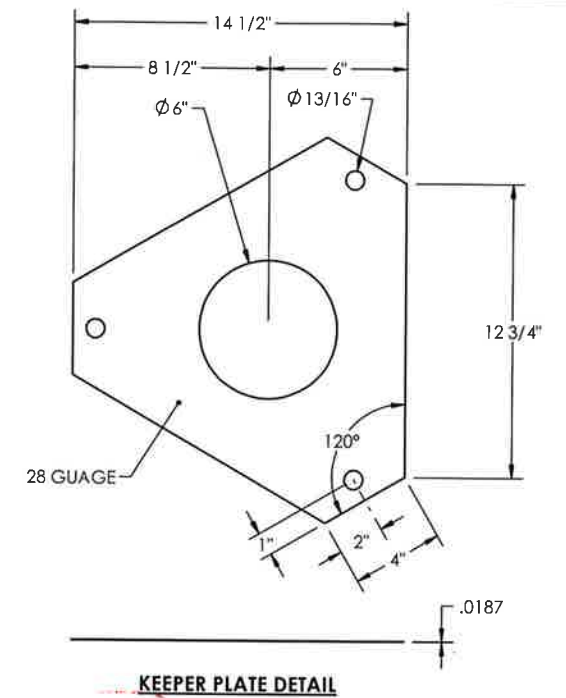
SECTION BA-BA
SCALE 1 : 8



SECTION AY-AY
SCALE 1 : 8



POLE TOP TENON DETAIL



KEEPER PLATE DETAIL

APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020

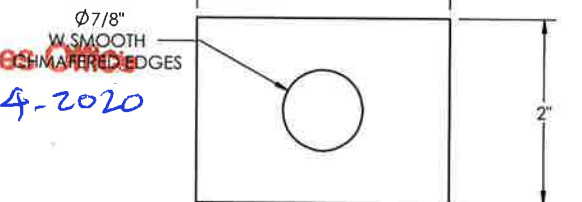
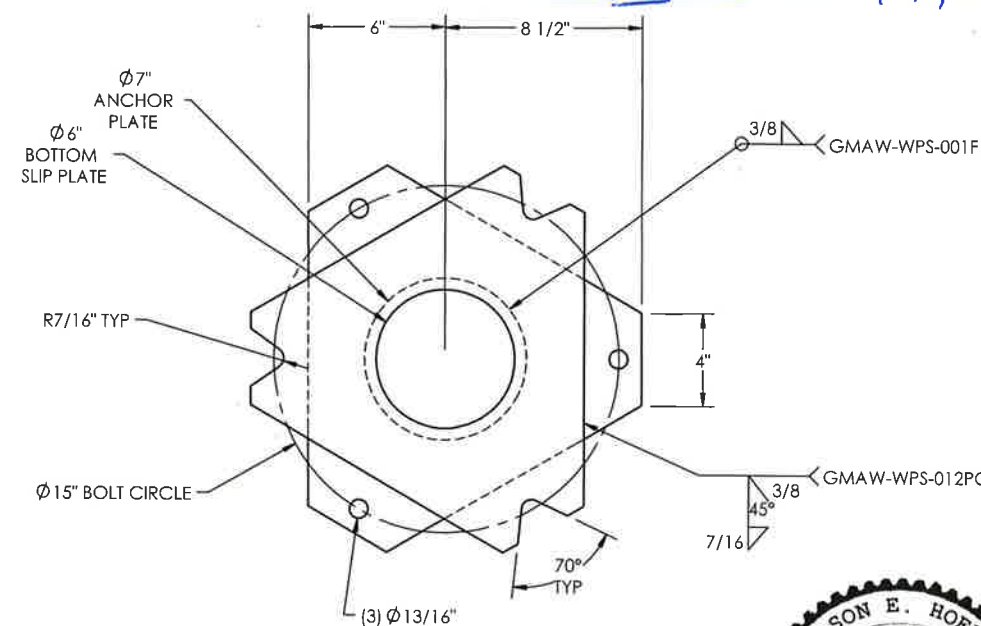


PLATE WASHER DETAIL



SLIP BASE AND ANCHOR PLATE WELDMENT DETAIL



8-18-20 (EXPIRES 12-18-21)

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74514	-	WA	2 OF 2
DESCRIPTION: SUB POLE PED RD - SLIP BASE			
EST. WEIGHT:		DRAWING NO: 74514-WA-PED-SB	
PROJECT NAME: STATE OF WASHINGTON PED POLES			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 02-16-2017	
CHK BY:		DATE:	

POLE HEIGHT (FT)	MMC #	QTY	POLE TUBE				BASE DETAIL				ANCHOR BOLT	
			THICK (IN) "A"	BASE O.D. (IN) "B"	TOP O.D. (IN) "C"	LENGTH (FT) "D"	SQUARE "S" (IN)	BOLT CIRCLE "F" (IN)	THICKNESS "G" (IN)	HOLE/SLOT "H" (IN)	ANCHOR BOLT DIA (IN)	LENGTH (IN)
15	WA-LC1-CAM15		3/16	11	8.9	15	25	25 1/2	1 1/4	1 3/8	1 1/4	52
	WA-LC1-CAM15-2HC											
20	WA-LC1-CAM20		3/16	11.8	9	20	25	25 1/2	1 1/4	1 3/8	1 1/4	52
	WA-LC1-CAM20-2HC											
30	WA-LC1-CAM30		3/16	13.2	9	30	25	25 1/2	1 1/4	1 3/8	1 1/4	52
	WA-LC1-CAM30-2HC											
40	WA-LC1-CAM40		1/4	14.6	9	40	25	25 1/2	1 1/4	1 3/8	1 1/4	52
	WA-LC1-CAM40-2HC											
50	WA-LC1-CAM50		5/16	17	10	50	25	25 1/2	1 1/4	1 3/8	1 1/4	52
	WA-LC1-CAM50-2HC											

LOAD CASE #1 LOADING:
 (1) CAMERA - 4.0 SQ FT @ 2'-0" ABOVE POLE TOP
 (1) DISH - 12" DIA @ POLE TOP
 (1) NEMA CABINET - 1.33 SQ FT @ 3'-8" FROM POLE TOP

MAXIMUM DEFLECTION SHALL NOT EXCEED
 0.7" IN 30 MPH WIND,
 OR 1.4" IN 70 MPH WIND

MATERIAL SPECIFICATIONS
POST: ASTM A572 GR55 BASE PLATE: ASTM A36 MAST ARM: ASTM A572 GR55 MOUNTING PLATE: ASTM A36 HARDWARE FINISH: ASTM F2329 CONNECTION BOLTS: ASTM F1554 GR105 CONNECTION NUTS: CONNECTION WASHERS: ANCHOR BOLTS: ANCHOR BOLT NUTS: ASTM A563 GR DH ANCHOR BOLT WASHER: ASTM F436 WELDING ELBOW: N/A PIPE: ASTM A53 GR B OR ASTM A500 GR B

DESIGN CRITERIA
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS.
WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS VORTEX SHED: N/A FATIGUE CAT: N/A NATURAL WIND GUST: N/A LUMINAIRE: N/A LUMINAIRE WEIGHT: N/A SIGN: N/A SIGN WEIGHT: N/A

WELD SPECIFICATION
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS. EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10' AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS. < 6MM (0.25 IN) MT ≥ 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).

STRUCTURE FINISH SPECIFICATION
GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123 FINISH COAT: COLOR: FEDERAL OR RAL SPEC.: WEIGHT W/GALV.: WEIGHT W/GALV. & PAINT: SURFACE AREA: GAL. OF PAINT:
SALES ORDER NO.: 74577 QTY: - STATE: WA SHEET: 1 OF 2

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DESCRIPTION: SUB POLE CAMERA RD LC1		DRAWING NO: 74577-WA-LC1	
PROJECT NAME: STATE OF WASHINGTON CAMERA POLES - LOAD CASE #1			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 1/31/17	
CHK BY:		DATE:	

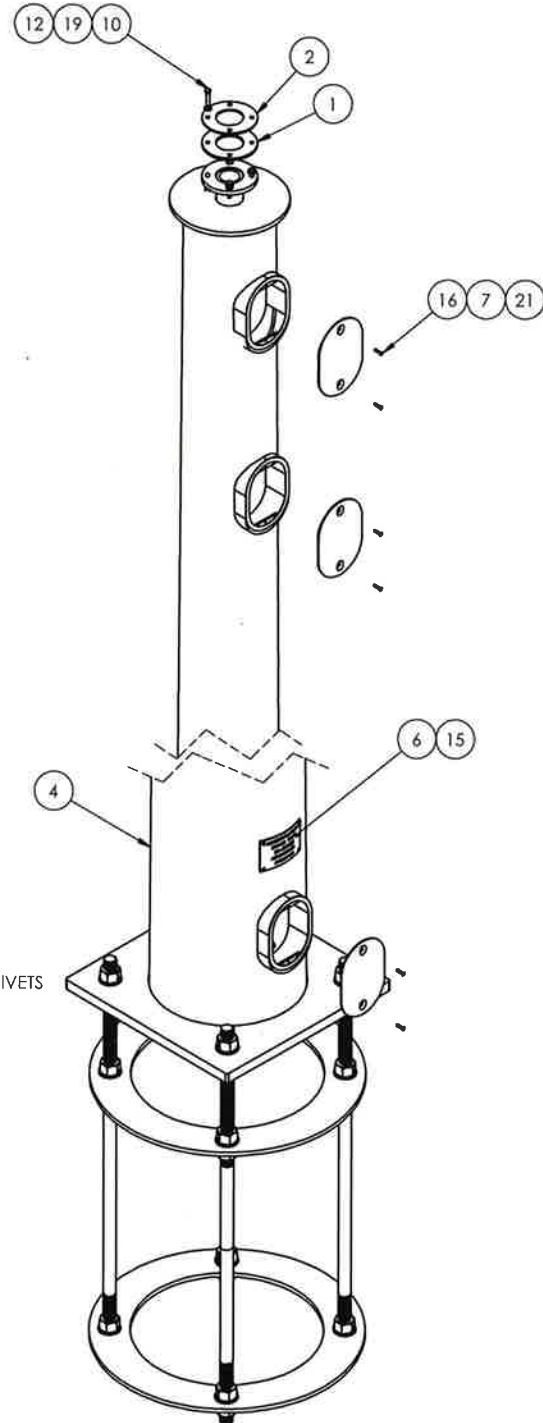
APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



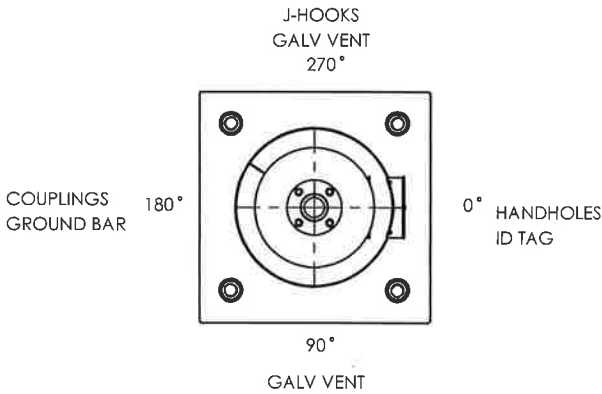
8-18-20 (EXPIRES 12-18-21)

NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION

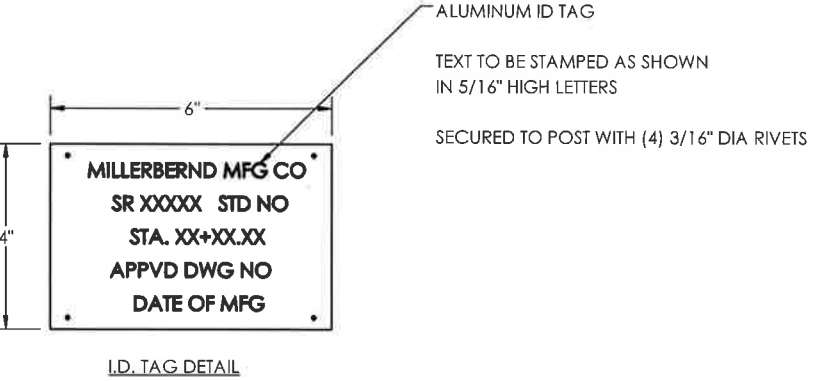
ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	NEOPRENE GASKET CAMERA PLATE ASSY	1		
2	CAMERA PLATE ASSY TOP	1		X
3	BASE RD 0.5 x 30"	2		X
4	WLDMT POLE CAMERA "A" X "B" X "C" X "D"	1		X
5	GROUND MTG PLATE	1	X	X
6	I.D. TAG - WA	1	X	
7	COVER HH M34M 5x8 2 BOLT	3		X
8	BOLT HX HD 1-2-13NC X 1" F593C SS	2	X	
9	BOLT HX HD 1/4-20NC X 1/2 F593C SS	2		
10	BOLT HX HD 3/8-16NC X 1-3/4 F593C SS	4		
11	NUT HVY HX 1-1/4-7NC A563 GV(DH)	24		
12	NUT HX NYLON INSERT LOCK 3/8-16 SS	4		
13	NUT SQ 1-2-13 SS	1		
14	PLUG-THD-PL-2 PVC	2	X	
15	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
16	SCRW HX SK BT HD 1-4-20NC X 1 SS	6		
17	WASHER FLAT 1-1/4 GV	24		
18	WASH F.56 IDX1.375ODX.091 THK BRASS COMM. BRASS	4	X	
19	WASHER FLAT 3/8 SS 7/8 OD	4		
20	ANCHOR BOLT 1 1/4-7X52" LG	4		
21	GASKET HH M34	3	X	



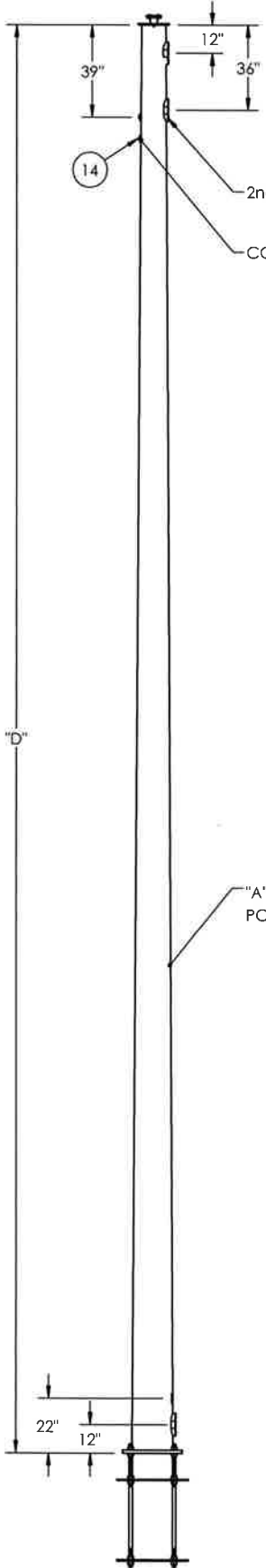
MUST SPECIFY 2ND HAND HOLE AND COUPLINGS AT TIME OF ORDER
 USE MMC # WITH -2HC



TOP VIEW ORIENTATION



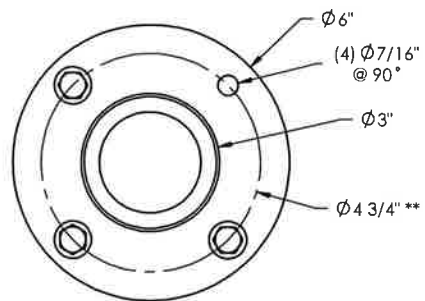
REVISIONS			
REV.	DESCRIPTION	DATE	DRFT
H	UPDATED WELD NOTE, UPDATED PER COMMENTS	6/12/2020	RK
G	UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/8/2020	RK
F	DESIGN CRITERIA, LATEST WAS "2017"	8/8/2017	RK



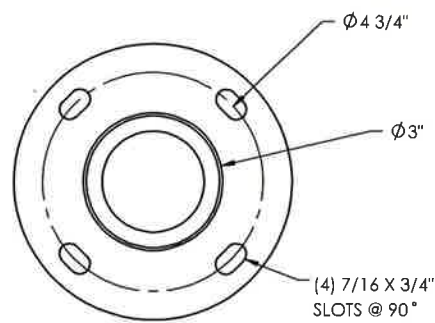
2nd HH (OPTIONAL)
 COUPLINGS (OPTIONAL)

"A" x "B" x "C" x "D"
 POLE SHAFT

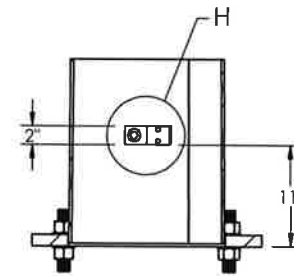
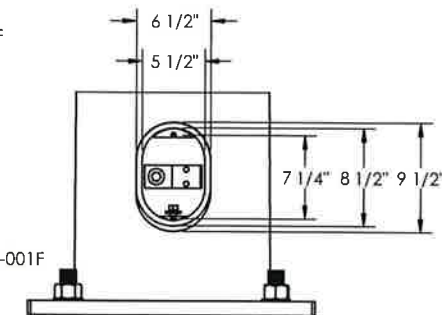
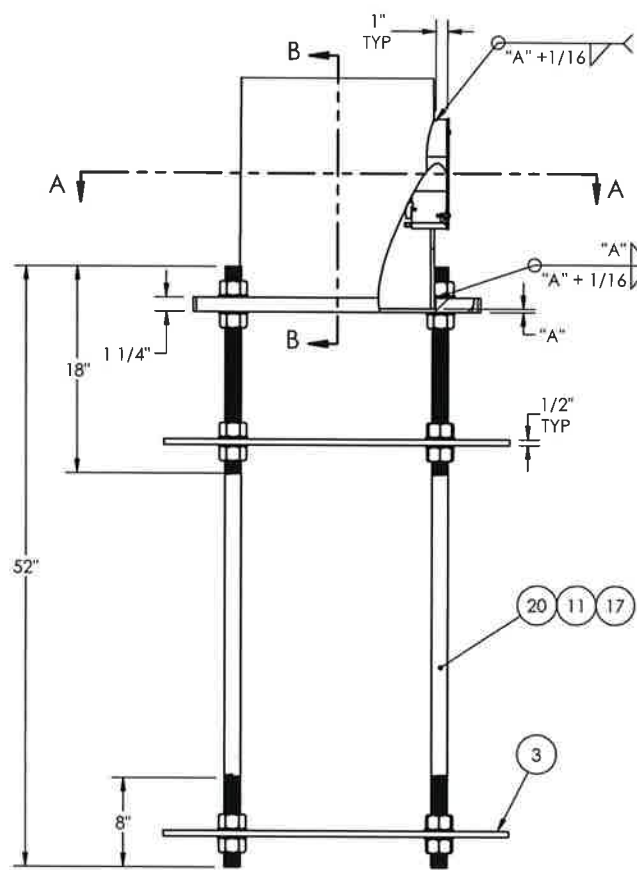
ALUMINUM ID TAG
 TEXT TO BE STAMPED AS SHOWN
 IN 5/16" HIGH LETTERS
 SECURED TO POST WITH (4) 3/16" DIA RIVETS



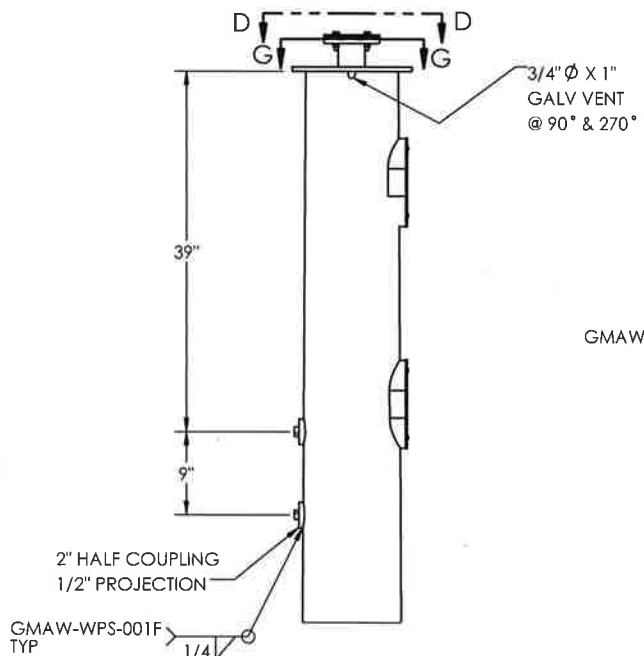
SECTION D-D
SCALE 1 : 4



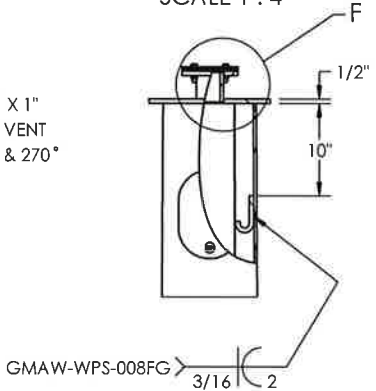
SECTION G-G
SCALE 1 : 4



SECTION B-B
SCALE 1 : 20

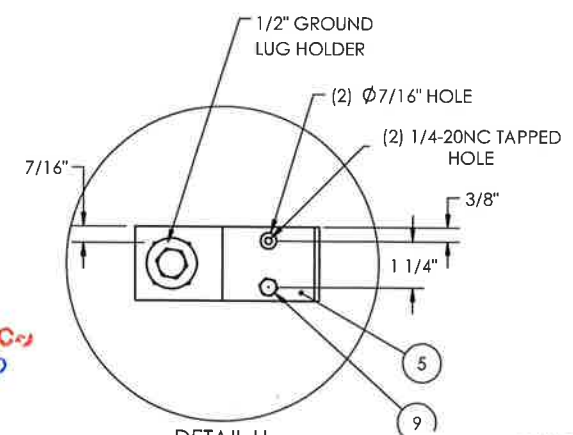


DETAIL F
SCALE 1 : 5



****VERIFY BOLT CIRCLE AND BOLT DIA PRIOR TO FABRICATION****

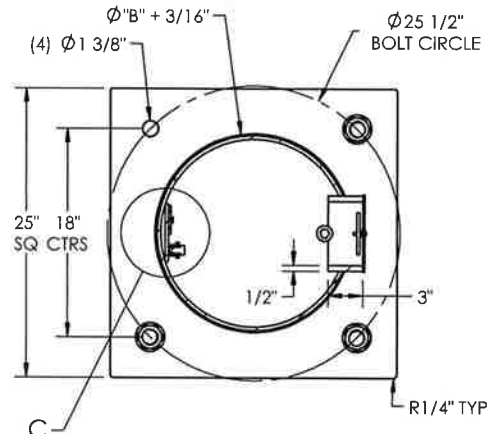
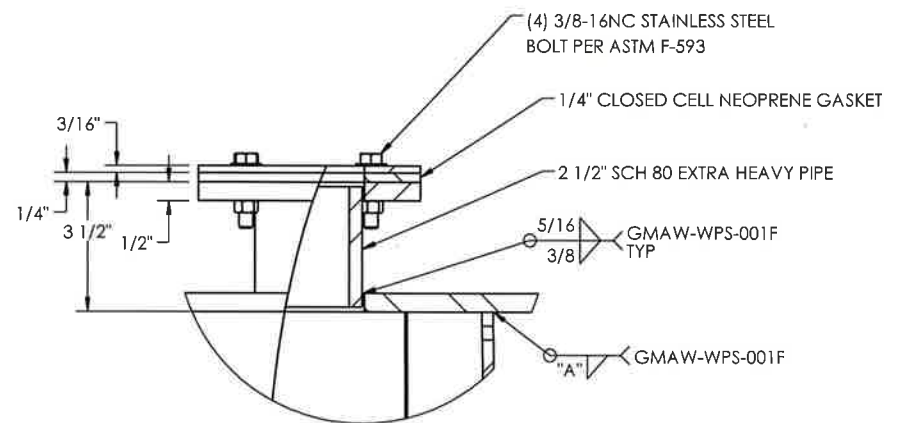
APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



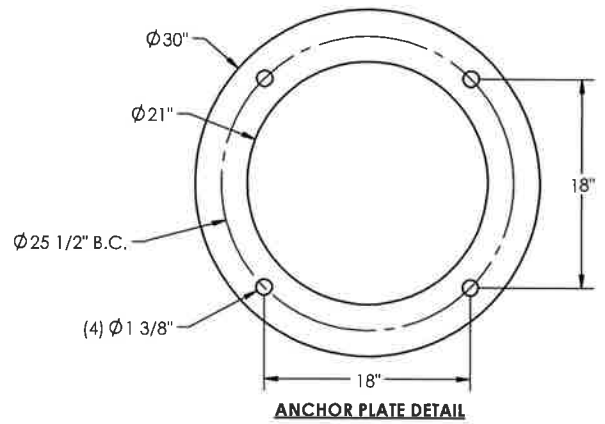
DETAIL H
SCALE 1 : 5



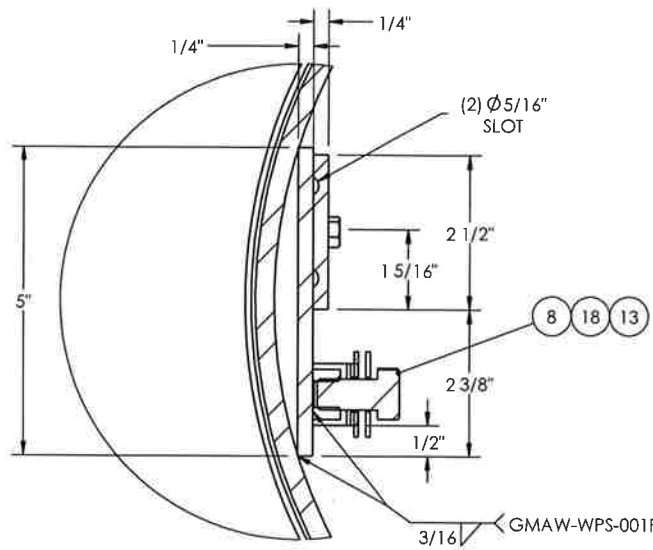
8-18-20 (EXPIRES 12-18-21)



SECTION A-A
SCALE 1 : 16

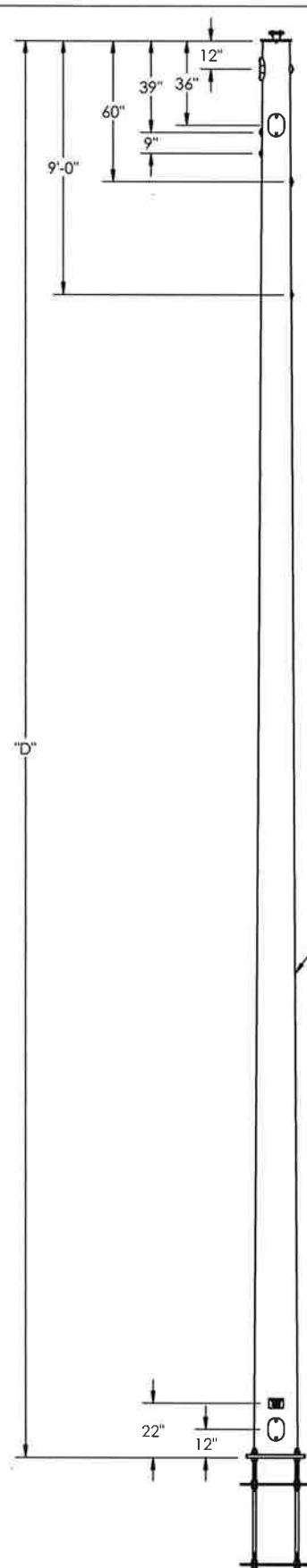


ANCHOR PLATE DETAIL

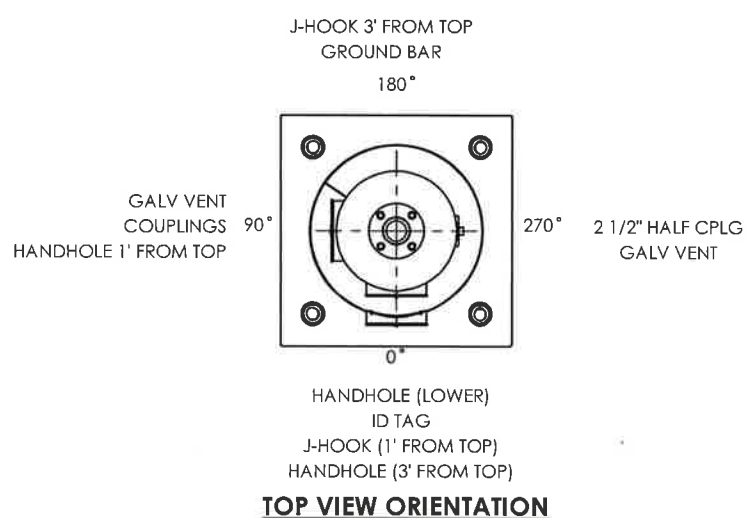


DETAIL C
SCALE 1 : 3

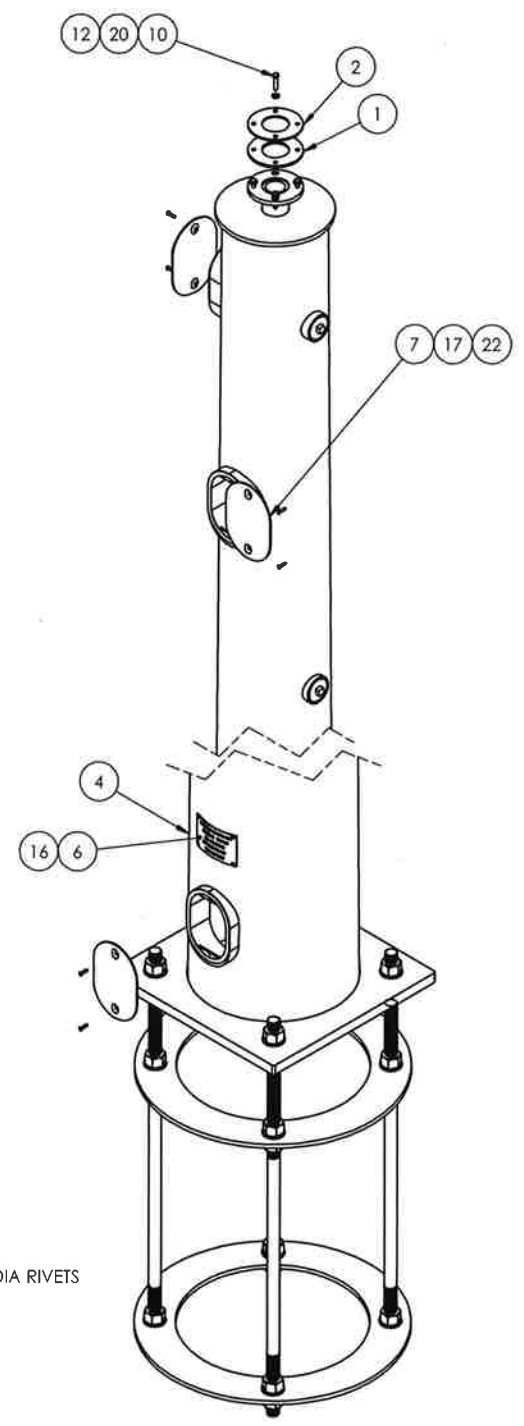
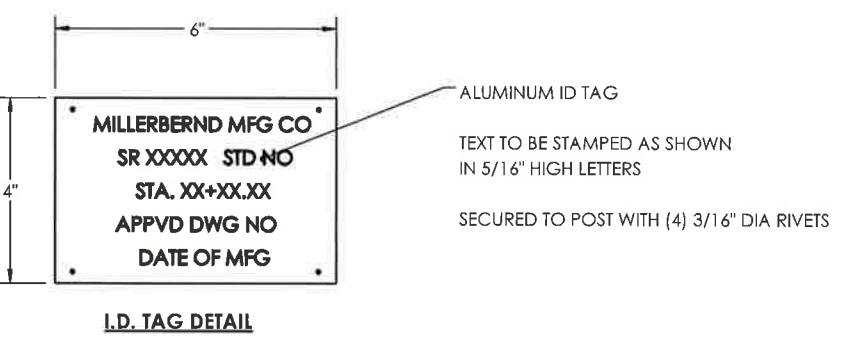
MILLERBERND		622 6TH ST. SO. WINSTED, MN 55395	
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74577	-	WA	2 OF 2
DESCRIPTION: SUB POLE CAMERA RD LC1			
EST. WEIGHT:	DRAWING NO: 74577-WA-LC1		
PROJECT NAME: STATE OF WASHINGTON CAMERA POLES - LOAD CASE #1			
PROJECT LOCATION: WA			
PROJECT NO.:	CONTROL/CONTRACT NO.:		
DWN BY: REBEKAH	DATE: 1/31/17		
CHK BY:	DATE:		



POLE DATA - LOAD CASE #2 - GROUND MOUNT												
POLE HEIGHT (FT)	MMC #	QTY	POLE TUBE				BASE DETAIL			ANCHOR BOLT		
			THICK (IN) "A"	BASE O.D. (IN) "B"	TOP O.D. (IN) "C"	LENGTH (FT) "D"	SQUARE "S" (IN)	BOLT CIRCLE "F" (IN)	THICKNESS "G" (IN)	HOLE/SLOT "H" (IN)	ANCHOR BOLT DIA (IN)	LENGTH (IN)
15	WA-LC2-CAM15		3/16	11	8.9	15	25	25 1/2	1 1/4	1 3/8	1 1/4	52
20	WA-LC2-CAM20		3/16	11.8	9	20						
30	WA-LC2-CAM30		3/16	13.2	9	30						
40	WA-LC2-CAM40		1/4	15.5	9.9	40						
50	WA-LC2-CAM50		5/16	18.5	11.5	50						



"A" x "B" x "C" x "D"
POLE SHAFT



LOAD CASE #2 LOADING:
 (1) CAMERA - 4.0 SQ FT @ 2'-0" ABOVE POLE TOP
 (2) CAMERA - 0.54 SQ FT @ 1'-0" & 2'-0" FROM POLE TOP
 (2) NEMA CABINETS INSTALLED BACK TO BACK
 - 1.33 SQ FT @ 3'-8" FROM POLE TOP
 (2) RADIO EQUIPMENT - 2.25 SQ FT @ 2'-0" & 9'-0" FROM POLE TOP

MAXIMUM DEFLECTION SHALL NOT EXCEED
 0.7" IN 30 MPH WIND,
 OR 1.4" IN 70 MPH WIND

APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



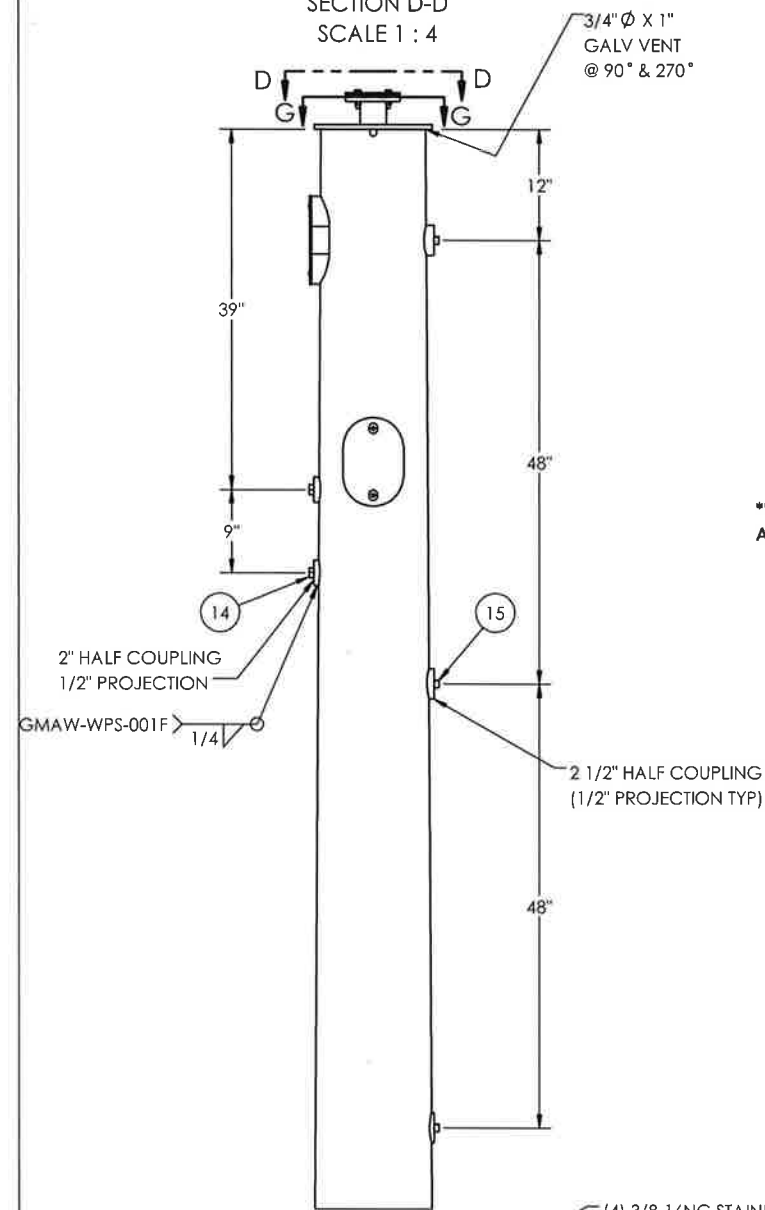
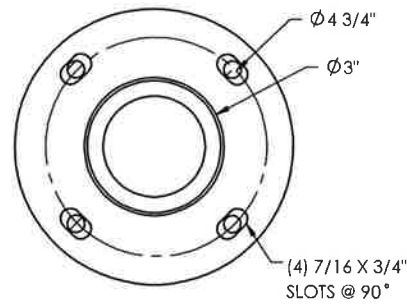
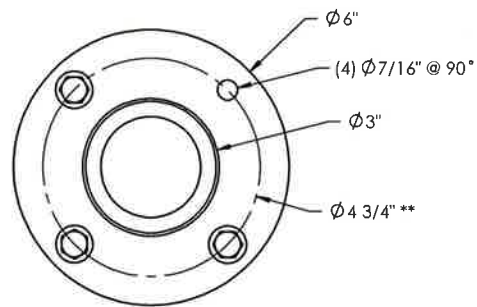
8-18-20 (EXPIRES 12-18-21)

NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION

MATERIAL SPECIFICATIONS			
POST: ASTM A572 GR55 BASE PLATE: ASTM A36 MAST ARM: ASTM A572 GR55 MOUNTING PLATE: ASTM A36 HARDWARE FINISH: ASTM F2329 CONNECTION BOLTS: ASTM A1554 GR105 CONNECTION NUTS: CONNECTION WASHERS: ANCHOR BOLTS: ANCHOR BOLT NUTS: ASTM A563 GR DH ANCHOR BOLT WASHER: ASTM F436 WELDING ELBOW: N/A PIPE: ASTM A53 GR B OR ASTM A500 GR B			
DESIGN CRITERIA			
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS. WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS VORTEX SHED: N/A FATIGUE CAT: N/A NATURAL WIND GUST: N/A LUMINAIRE: N/A LUMINAIRE WEIGHT: N/A SIGN: N/A SIGN WEIGHT: N/A			
WELD SPECIFICATION			
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS, EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES; FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.			
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS. < 6MM (0.25 IN) MT ≥ 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).			
WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND 2015 AASHTO WELD INSPECTION SECTION 14.4.4.8			
STRUCTURE FINISH SPECIFICATION			
GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123 FINISH COAT: - COLOR: - FEDERAL OR RAL SPEC.: - WEIGHT W/GALV.: - WEIGHT W/GALV.&PAINT: SURFACE AREA: GAL. OF PAINT:			
		622 6TH ST. SO. WINSTED, MN 55395	
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74577	-	WA	1 OF 2
DESCRIPTION: SUB POLE CAMERA RD LC2			
EST. WEIGHT:		DRAWING NO:	
		74577-WA-LC2	
PROJECT NAME: STATE OF WASHINGTON CAMERA POLES - LOAD CASE #2			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 2/2/17	
CHK BY:		DATE:	

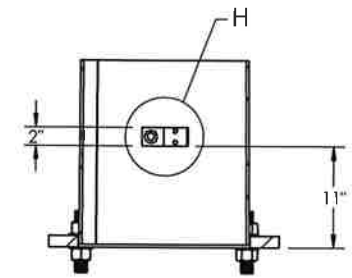
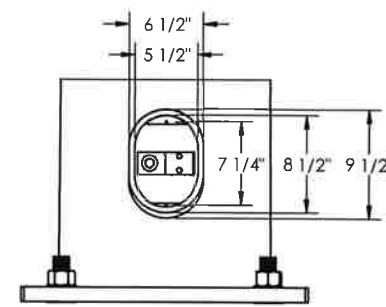
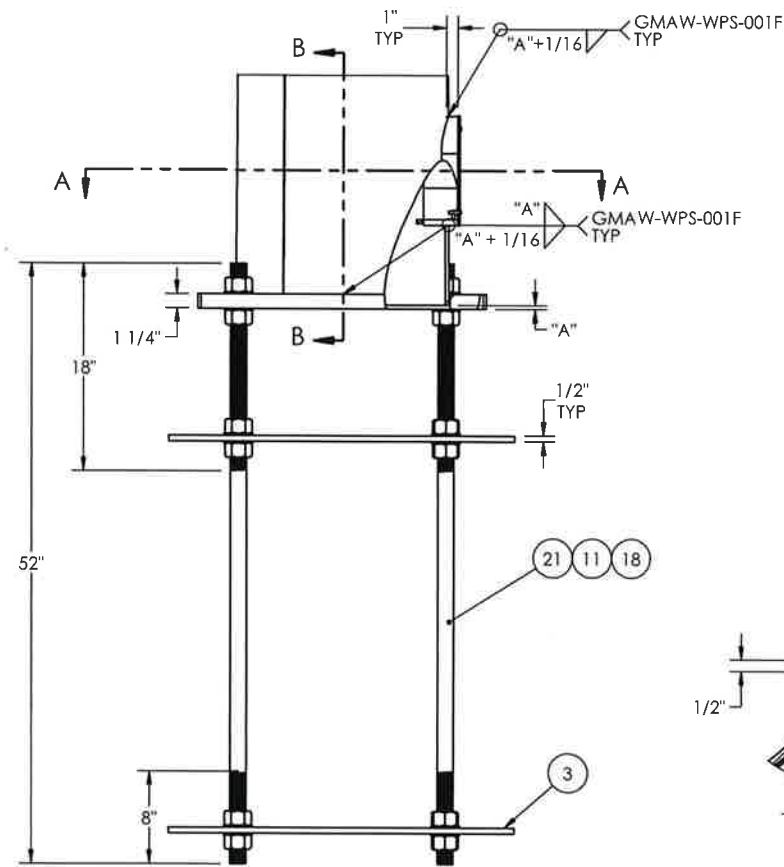
ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	NEOPRENE GASKET CAMERA PLATE ASSY	1		
2	CAMERA PLATE ASSY TOP	1		X
3	BASE RD 0.5 x 30"	2		X
4	WLDMT POLE CAMERA "A" X "B" X "C" X "D"	1		X
5	GROUND MTG PLATE	1	X	X
6	I.D. TAG - WA	1	X	
7	COVER HH M34M 5x8 2 BOLT	3		X
8	BOLT HX HD 1-2-13NC X 1" F593C SS	1		
9	BOLT HX HD 1/4-20NC X 1/2 F593C SS	2	X	
10	BOLT HX HD 3-8-16NC X 1-3-4 F593C SS	4		
11	NUT HVY HX 1-1-4-7NC A563 GV(DH)	24		
12	NUT HX NYLON INSERT LOCK 3-8-16 SS	4		
13	NUT SQ 1-2-13 SS	1		
14	PLUG-THD-PL-2 PVC	2	X	
15	PLUG-THD-PL-2-1-2 PVC	3	X	
16	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
17	SCRW HX SK BT HD 1-4-20NC X 1 SS	6		
18	WASHER FLAT 1-1/4 GV	24		
19	WASH F.56 IDX1.375ODX.091 THK BRASS COMM. BRASS	2	X	
20	WASHER FLAT 3/8 SS 7/8 OD	4		
21	ANCHOR BOLT 1 1/4-7X52" LG	4		
22	GASKET HH M34	3	X	

REVISIONS			
REV.	DESCRIPTION	DATE	DRFT
H	UPDATED WELD NOTE, UPDATED PER COMMENTS	6/12/2020	RK
G	UPDATED NOTES PER COMMENTS; UPDATED WFS TO MMC STANDARDS	5/8/2020	RK
F	DESIGN CRITERIA, LATEST WAS "2017"	8/8/2017	RK

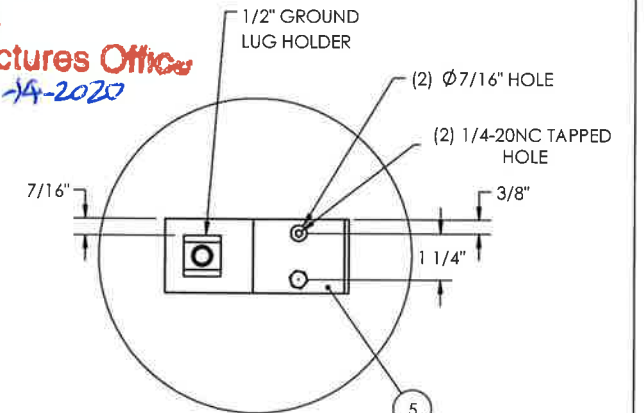
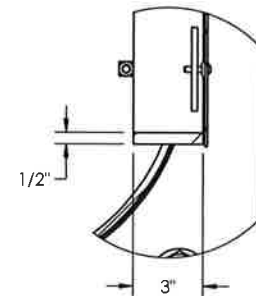


3/4" ϕ X 1" GALV VENT @ 90° & 270°

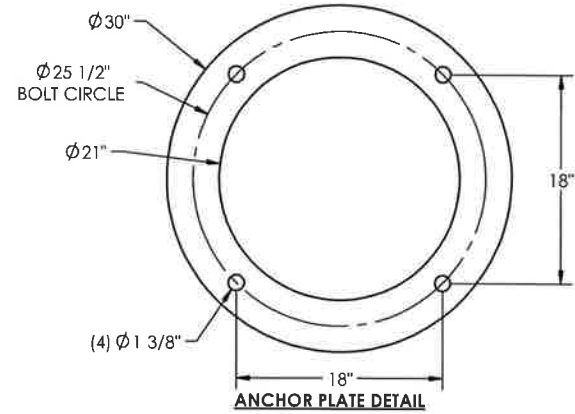
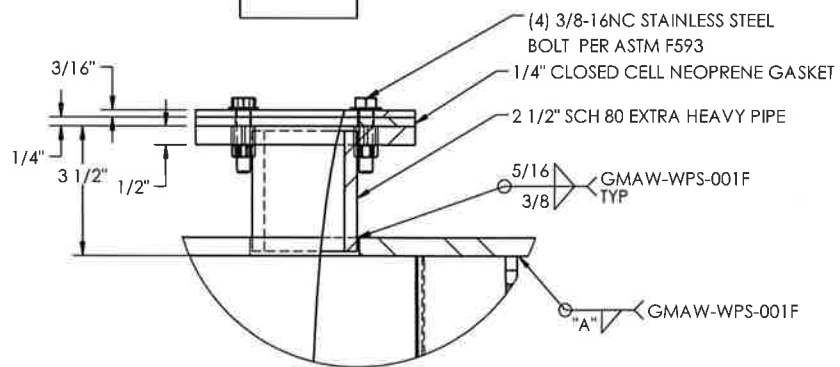
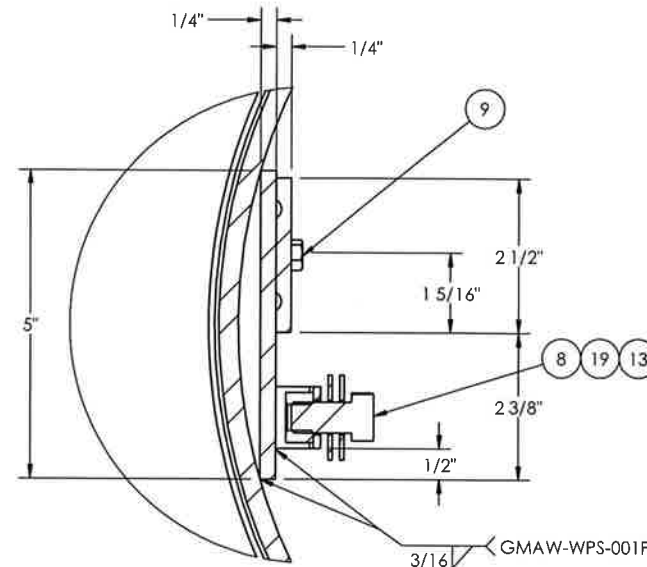
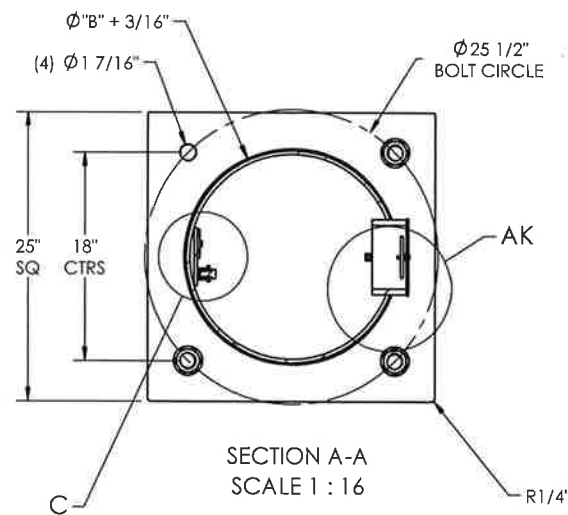
****VERIFY BOLT CIRCLE AND BOLT DIA PRIOR TO FABRICATION****



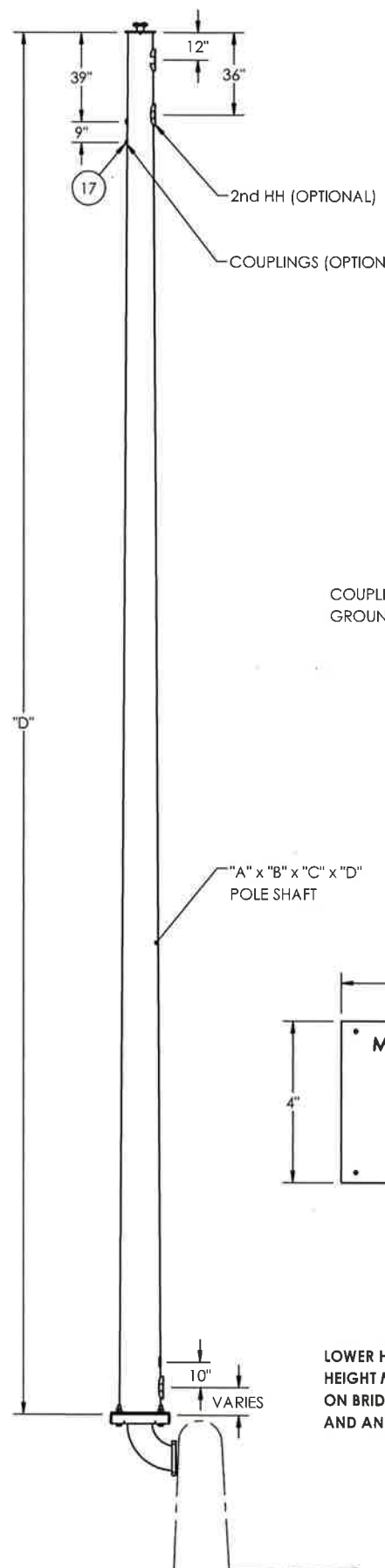
APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



8-18-20 (EXPIRES 12-18-21)



MILLERBERND		622 6TH ST. SO. WINSTED, MN 55395	
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74577	-	WA	2 OF 2
DESCRIPTION: SUB POLE CAMERA RD LC2			
EST. WEIGHT:	DRAWING NO: 74577-WA-LC2		
PROJECT NAME: STATE OF WASHINGTON CAMERA POLES - LOAD CASE #2			
PROJECT LOCATION: WA			
PROJECT NO.:	CONTROL/CONTRACT NO.:		
	-		
DWN BY: REBEKAH	DATE: 2/2/17		
CHK BY:	DATE:		



POLE HEIGHT (FT)	MMC #	QTY	POLE TUBE				BASE DETAIL				CONNECTING BOLT DIA (IN)
			THICK (IN) "A"	BASE O.D. (IN) "B"	TOP O.D. (IN) "C"	LENGTH (FT) "D"	SQUARE "S" (IN)	BOLT CIRCLE "F" (IN)	THICKNESS "G" (IN)	HOLE/SLOT "H" (IN)	
15	WA-LC3-CAM15		3/16	11	8.9	15	25	25 1/2	1 1/4	1 3/8	1 1/4
20	WA-LC3-CAM20		3/16	11.8	9	20					
30	WA-LC3-CAM30		3/16	13.2	9	30					
40	WA-LC3-CAM40		1/4	14.6	9	40					
50	WA-LC3-CAM50		5/16	17.75	10.75	50					

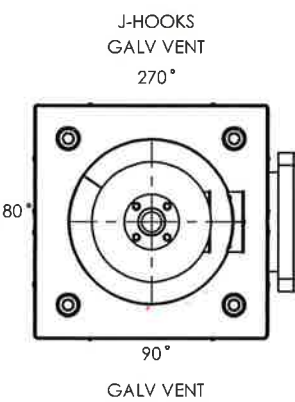
LOAD CASE #1 LOADING:
 (1) CAMERA - 4.0 SQ FT @ 2'-0" ABOVE POLE TOP
 (1) DISH - 12" DIA @ POLE TOP
 (1) NEMA CABINET - 1.33 SQ FT @ 3'-8" FROM POLE TOP

MAXIMUM DEFLECTION SHALL NOT EXCEED
 0.7" IN 30 MPH WIND,
 OR 1.4" IN 70 MPH WIND

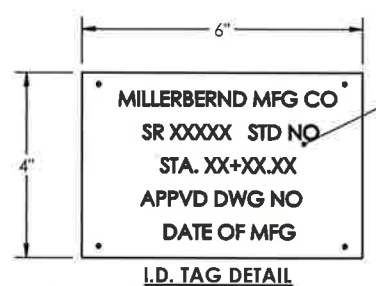
MATERIAL SPECIFICATIONS
POST: ASTM A572 GR55 BASE PLATE: ASTM A36 MAST ARM: ASTM A572 GR55 MOUNTING PLATE: ASTM A36 HARDWARE FINISH: ASTM F2329 CONNECTION BOLTS: ASTM A449 OR F1554 GR105 CONNECTION NUTS: CONNECTION WASHERS: ANCHOR BOLTS: ANCHOR BOLT NUTS: ASTM A563 GR DH ANCHOR BOLT WASHER: ASTM F436 WELDING ELBOW: ASTM A234 GR WPB, FY = 35KSI PIPE: ASTM A53 GR B OR ASTM A500 GR B

MUST SPECIFY 2ND HAND HOLE AND COUPLINGS AT TIME OF ORDER
 MUST SPECIFY LOWER HANDHOLE MOUNTING HEIGHT AT TIME OF ORDER
 MUST SPECIFY SLOPE OF ELBOW AT TIME OF ORDER
 FIELD MEASURE BARRIER BACK SLOPE PRIOR TO MANUFACTURING ELBOW

MMC #	LOWER HH HGT	BARRIER BACK SLOPE ANGLE	2ND CPLG & HH REQUIRED

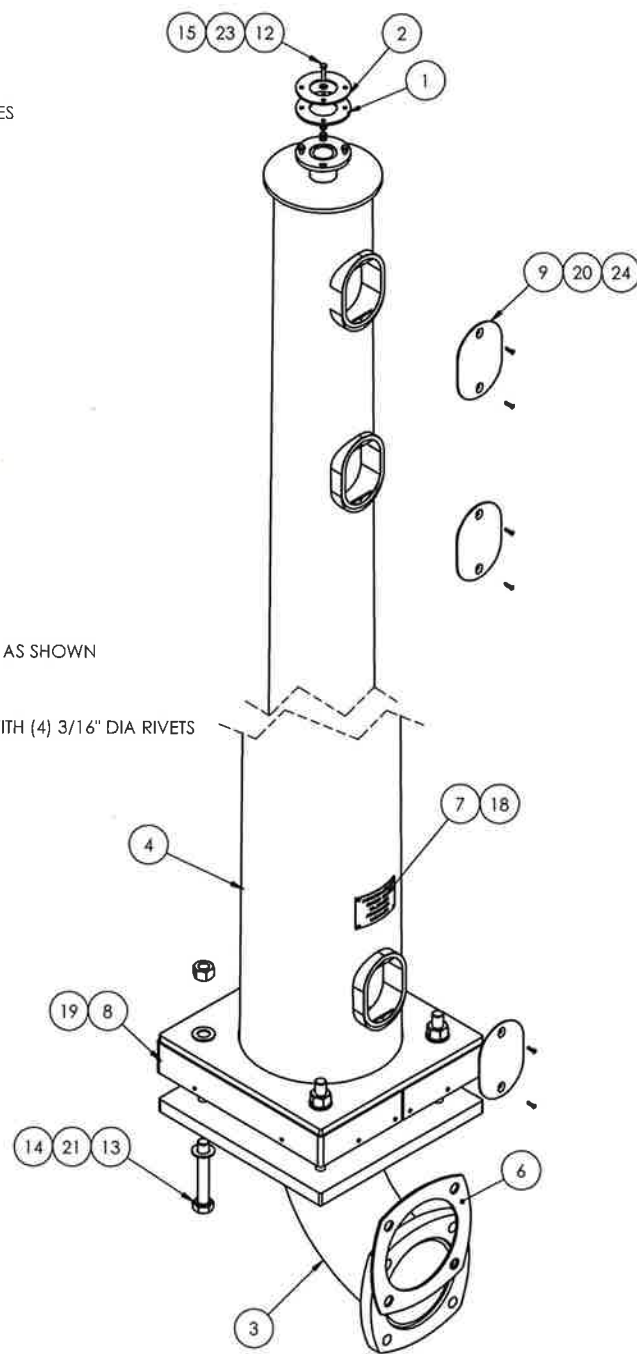


TOP VIEW ORIENTATION



ALUMINUM ID TAG
 TEXT TO BE STAMPED AS SHOWN
 5/16" HIGH LETTERS
 SECURED TO POST WITH (4) 3/16" DIA RIVETS

LOWER HANDHOLE MOUNTING HEIGHT MUST BE SPECIFIED BASED ON BRIDGE BARRIER ELEVATION AND ANY OTHER VERTICAL RAILINGS



APPROVED
 Manufacturer's Pole Plan
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 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



8-18-20 (EXPIRES 12-18-21)

NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION

DESIGN CRITERIA
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS.
WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS VORTEX SHED: N/A FATIGUE CAT: N/A NATURAL WIND GUST: N/A LUMINAIRE: N/A LUMINAIRE WEIGHT: N/A SIGN: N/A SIGN WEIGHT: N/A

WELD SPECIFICATION
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS, EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.

STRUCTURE FINISH SPECIFICATION
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS. < 6MM (0.25 IN) MT ≥ 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT). WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND 2015 AASHTO WELD INSPECTION SECTION 14.4.4.8

ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	NEOPRENE GASKET CAMERA PLATE ASSY	1		
2	CAMERA PLATE ASSY TOP	1		X
3	WLDMNT BRIDGE ELBOW	1		X
4	WLDMT POLE CAMERA "A" X "B" X "C" X "D"	1		
5	GROUND MTG PLATE	1	X	X
6	PAD FABREEKA 1/4	1		
7	I.D. TAG - WA	1	X	
8	SKIRT HALF 3/16 x 4"	2		X
9	COVER HH M34M 5x8 2 BOLT	3		X
10	BOLT HX HD 1-2-13NC X 1" F593C SS	1		
11	BOLT HX HD 1/4-20NC X 1/2 F593C SS	2	X	
12	BOLT HX HD 3-8-16NC X 1-3-4 F593C SS	4		
13	BOLT HVY HX HD 1 1/4-7NC X 8 A449	4		
14	NUT HVY HX 1-1-4-7NC A563 GV(DH)	8		
15	NUT HX NYLON INSERT LOCK 3-8-16 SS	4		
16	NUT SQ 1-2-13 SS	1		
17	PLUG-THD-PL-2 PVC	2	X	
18	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
19	SCRWF10-20X1-2SS	12		
20	SCRW HX SK BT HD 1-4-20NC X 1 SS	6		
21	WASHER FLAT 1-1/4 GV	12		
22	WASH F.56 IDX1.375ODX.091 THK BRASS COMM. BRASS	2	X	
23	WASHER FLAT 3/8 SS 7/8 OD	4		
24	GASKET HH M34	3	X	

SALES ORDER NO.:	QTY:	STATE:	SHEET
74577	-	WA	1 OF 3

DESCRIPTION: SUB POLE CAMERA RD LC3

EST. WEIGHT: DRAWING NO: 74577-WA-LC3

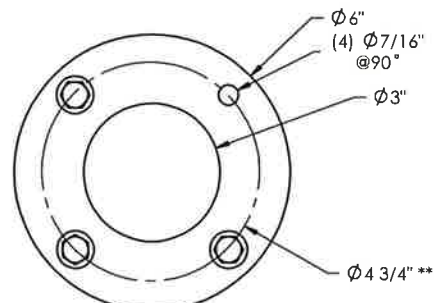
PROJECT NAME: STATE OF WASHINGTON CAMERA POLES - LOAD CASE #3

PROJECT LOCATION: WA

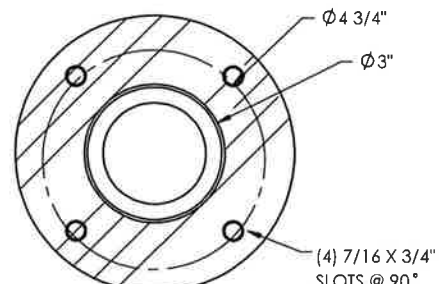
DWN BY: REBEKAH DATE: 2/3/17

CHK BY: DATE:

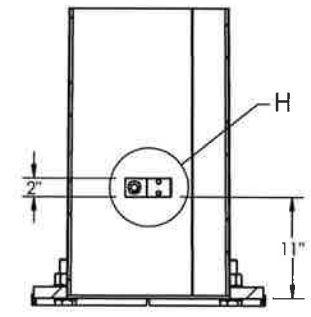
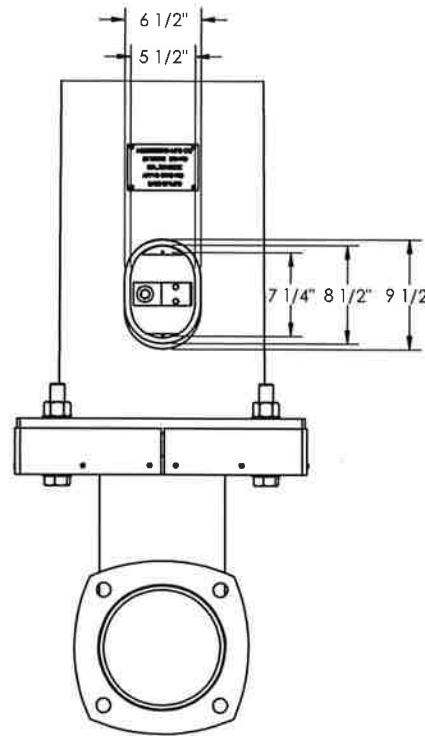
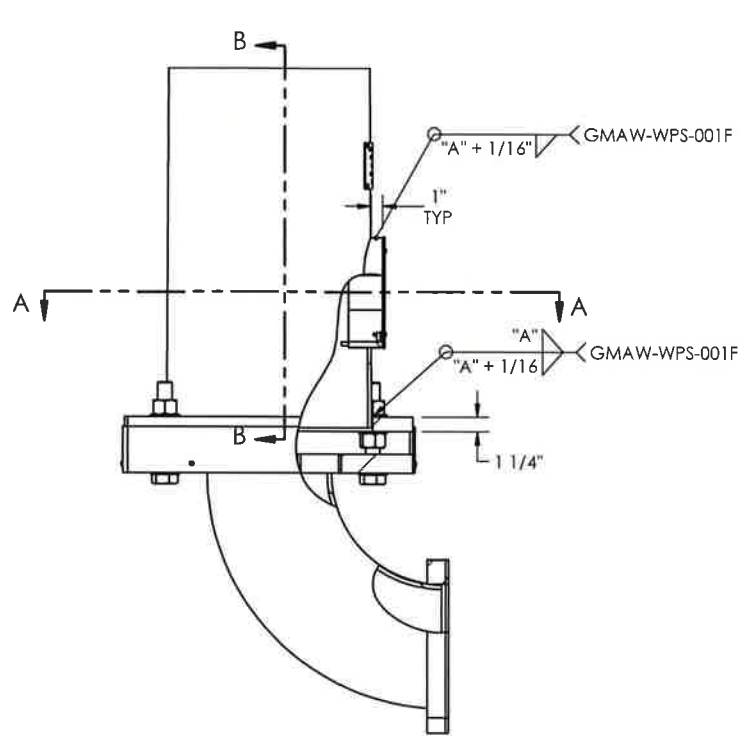
REV.	DESCRIPTION	DATE	DRFT
H	UPDATED WELD NOTE, UPDATED PER COMMENTS	6/12/2020	RK
G	REMOVED PLATE WASHER, UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/8/2020	RK
F	DESIGN CRITERIA, LATEST WAS "2017"; CONNECTION BOLT WAS 8" LG	8/8/2017	RK



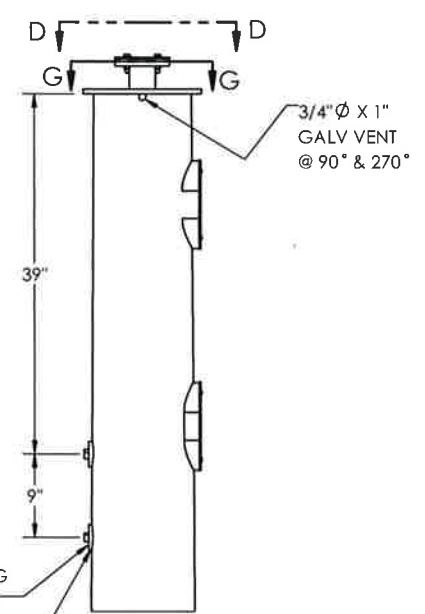
SECTION D-D
SCALE 1 : 4



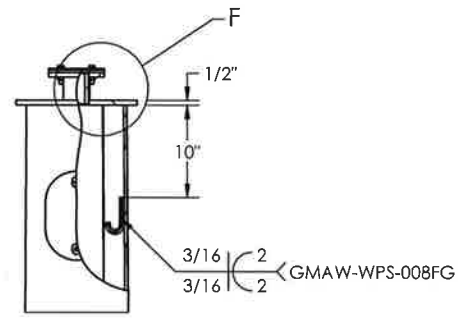
SECTION G-G
SCALE 1 : 4



SECTION B-B
SCALE 1 : 20

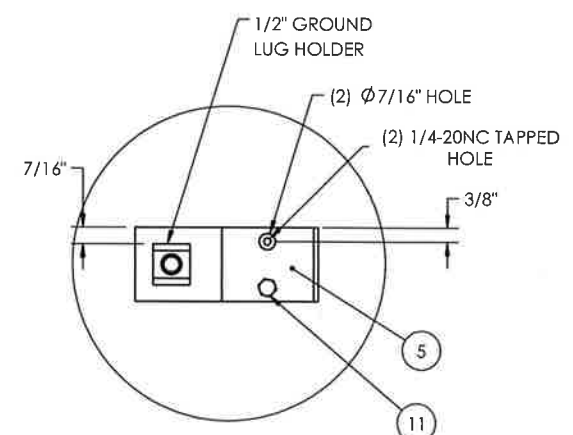


DETAIL F
SCALE 1 : 5

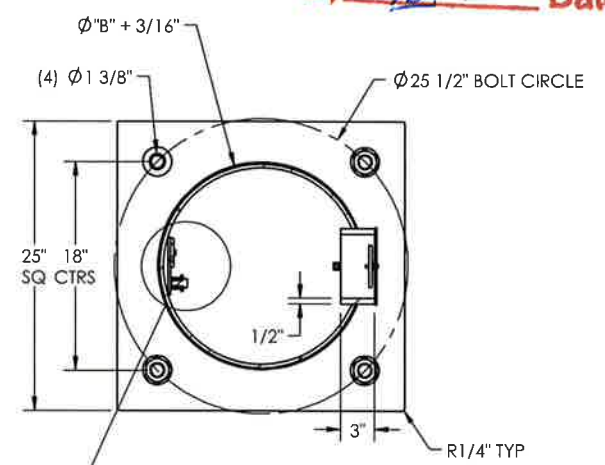
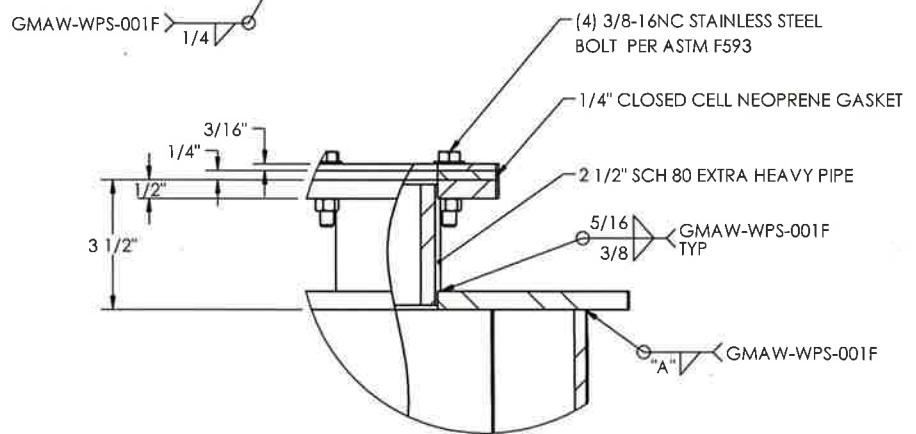


****VERIFY BOLT CIRCLE AND BOLT DIA PRIOR TO FABRICATION****

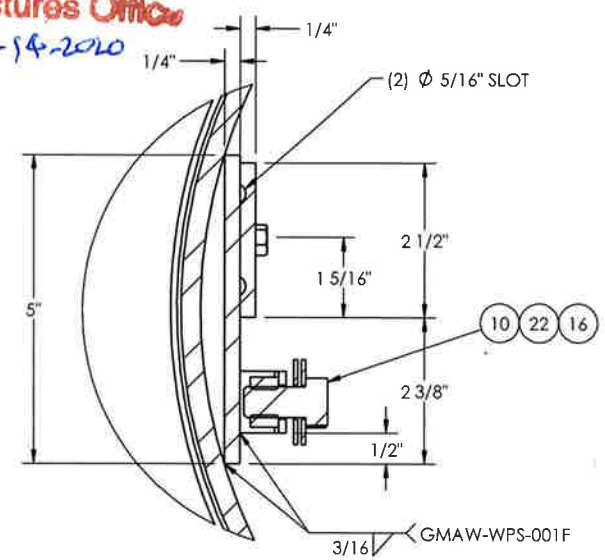
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 Manufacturer's Pole Plan
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 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



DETAIL H
SCALE 1 : 5

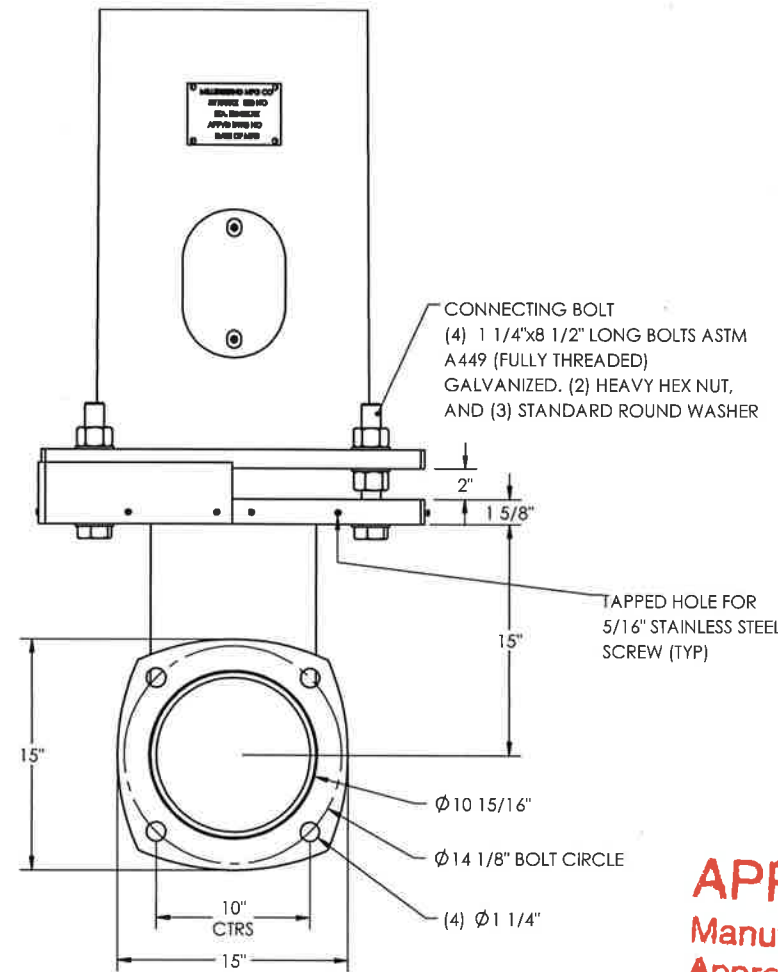
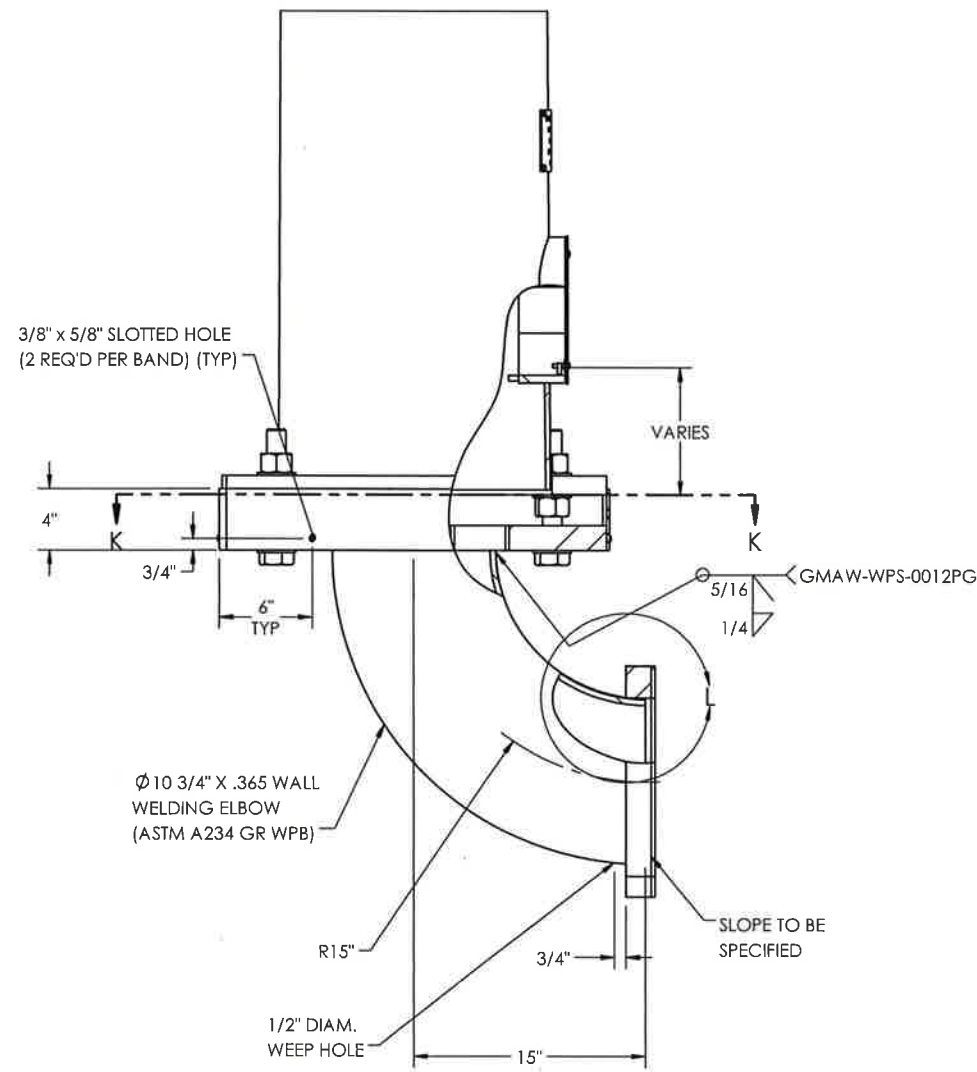


SECTION A-A
SCALE 1 : 16



DETAIL C
SCALE 1 : 3

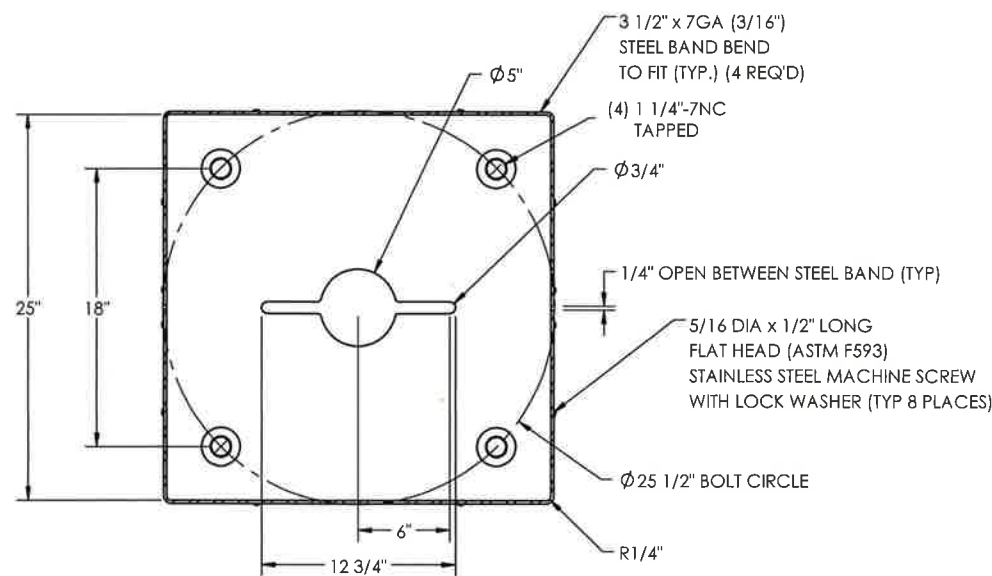
MILLERBERND		622 6TH ST. SO. WINSTED, MN 55395	
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74577	-	WA	2 OF 3
DESCRIPTION: SUB POLE CAMERA RD LC3			
EST. WEIGHT:	DRAWING NO: 74577-WA-LC3		
PROJECT NAME: STATE OF WASHINGTON CAMERA POLES - LOAD CASE #3			
PROJECT LOCATION: WA			
PROJECT NO.:	CONTROL/CONTRACT NO.:		
DWN BY: REBEKAH	DATE: 2/3/17		
CHK BY:	DATE:		



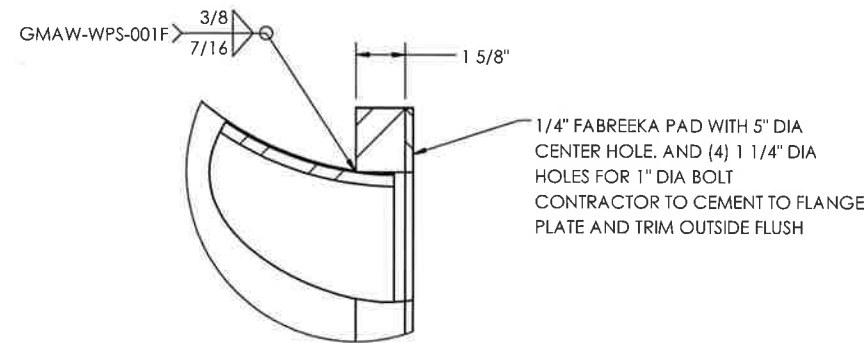
APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By SB Date 9-14-2020



8-18-20 (EXPIRES 12-18-21)



SECTION K-K
 SCALE 1 : 12



DETAIL L
 SCALE 1 : 6

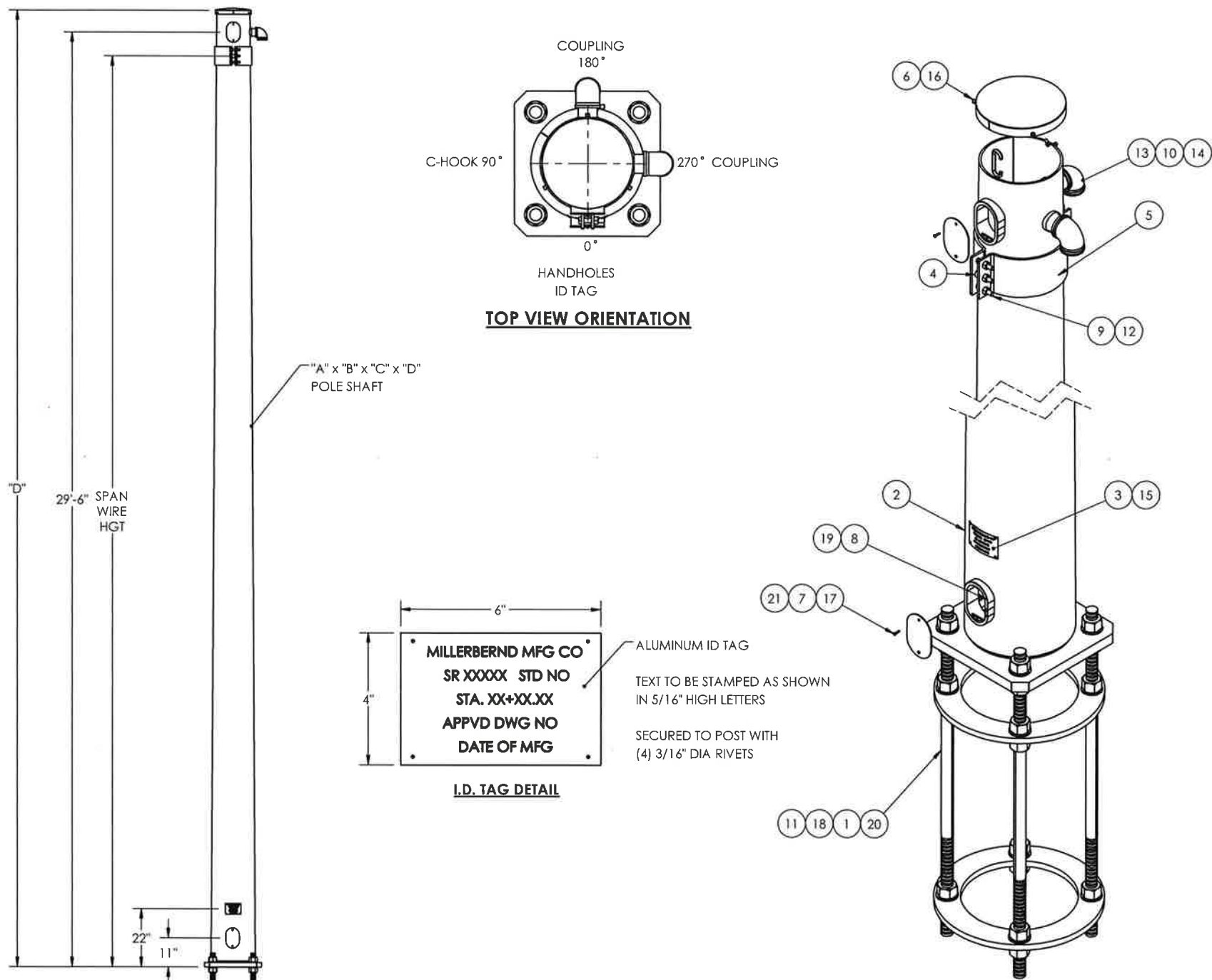
MILLERBERND		622 6TH ST. SO. WINSTED, MN 55395	
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74577	-	WA	3 OF 3
DESCRIPTION: SUB POLE CAMERA RD LC3			
EST. WEIGHT:		DRAWING NO.:	
		74577-WA-LC3	
PROJECT NAME: STATE OF WASHINGTON CAMERA POLES - LOAD CASE #3			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 2/3/17	
CHK BY:		DATE:	

POLE DATA - STRAIN POLE - TYPE IV															
MMC #	SPAN WIRE HGT	QTY	POLE CLASS	POLE TUBE				BASE DETAIL				ANCHOR BOLT			
				THICK (IN) "A"	BASE O.D. (IN) "B"	TOP O.D. (IN) "C"	LENGTH (FT) "D"	SQUARE "S" (IN)	BOLT CIRCLE "F" (IN)	BOLT CENTERS "M" (IN)	THICKNESS "G" (IN)	HOLE/SLOT "H" (IN)	DIA "J" (IN)	LENGTH "K" (IN)	ANCHOR PLATE O.D. "L" (IN)
WA-SP-IV-1900			1900#	1/4	11	6.8	30	15	15	10 5/8"	1 1/2	1 1/2	1 1/4	60	19
WA-SP-IV-2700			2700#		12.5	8.3		17	17	12"		21			
WA-SP-IV-3700			3700#		14	9.8		19	19	13 7/16"		23			
WA-SP-IV-4800			4800#	5/16	14	9.8	30	20	20	14 1/8"	1 3/4	2	1 3/4	60	24
WA-SP-IV-5600			5600#		15	10.8		20	20	14 1/8"		24			
WA-SP-IV-6300			6300#		16	11.8		22	22	15 9/16"		26			
WA-SP-IV-7200			7200#		17	12.8		22	22	15 9/16"		26			

MATERIAL SPECIFICATIONS
POST: ASTM A572 GR55 BASE PLATE: ASTM A709 GR 50 MAST ARM: N/A MOUNTING PLATE: N/A HARDWARE FINISH: ASTM F2329 CABLE CLAMP CONNECTING BOLT: ASTM F3125 GR A325 CABLE CLAMP CONNECTION NUTS: ASTM F563 GR DH CABLE CLAMP CONNECTION LOCK WASHER: ASTM F436 ANCHOR BOLTS: ASTM F1554 GR105 ANCHOR BOLT NUTS: ASTM A563 GR DH ANCHOR BOLT WASHER: ASTM F436 WELDING ELBOW: PIPE: ASTM A53 GR B OR ASTM A500 GR B

DESIGN CRITERIA
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS. WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS VORTEX SHED: N/A FATIGUE CAT: N/A NATURAL WIND GUST: N/A LUMINAIRE: N/A LUMINAIRE WEIGHT: N/A SIGN: N/A SIGN WEIGHT: N/A

WELD SPECIFICATION
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS. EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION. WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS. < 6MM (0.25 IN) MT ≥ 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT). WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND 2015 ASSHTO WELD INSPECTION SECTION 14.4.4.8

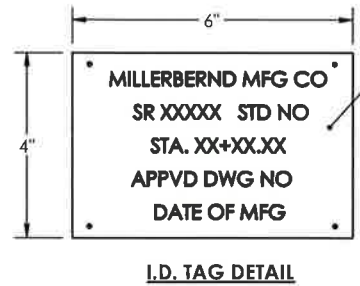


APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Listing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



8-18-20 (EXPIRES 12-18-21)

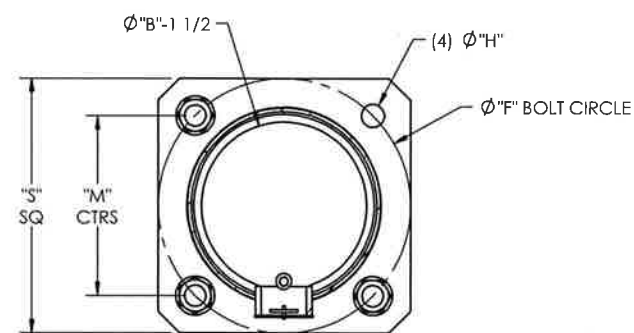
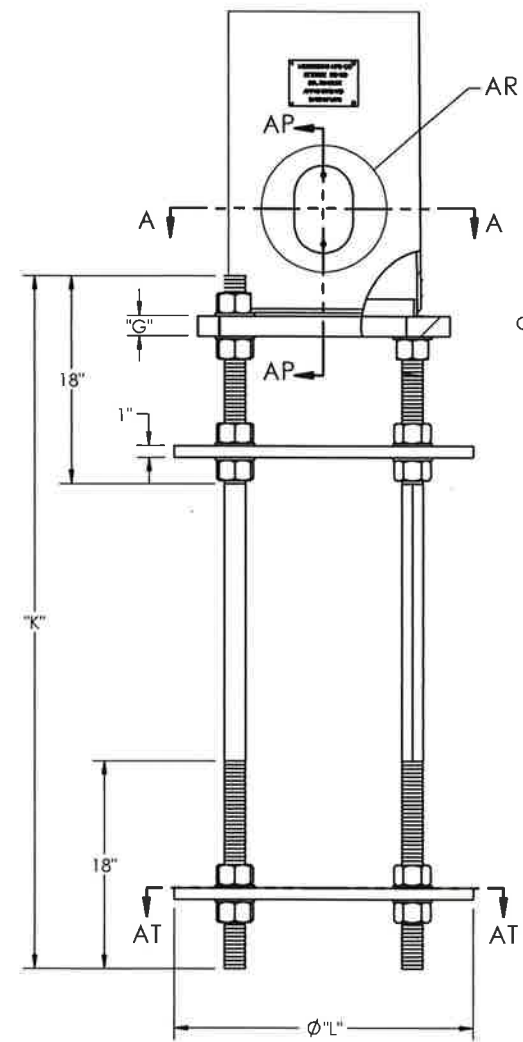
NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION



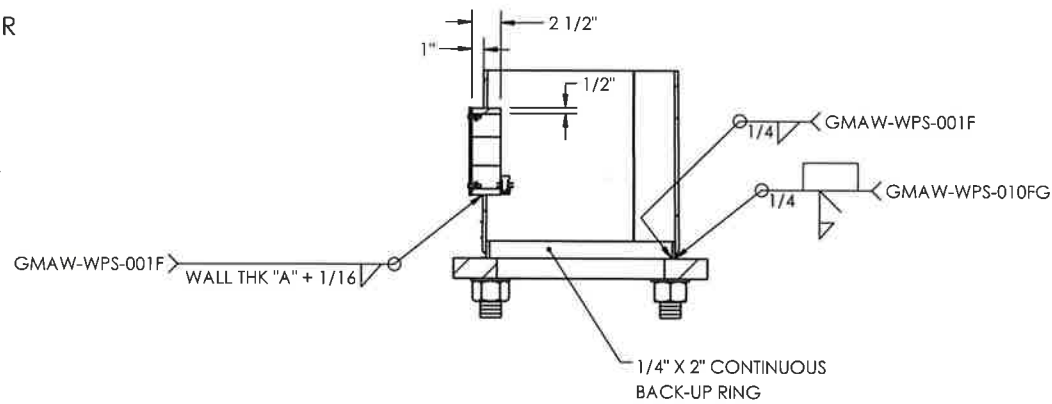
REVISIONS			
REV.	DESCRIPTION	DATE	DRFT
H	3700# WAS 1/4 X 15 X 10.8, UPDATED WELD NOTE, UPDATED PER COMMENTS	6/12/2020	RK
G	UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/12/2020	RK
F	REVIEWED FOR GALV HANGING, VENTING REQUIREMENTS - NO CHANGES	2/26/2020	RK

ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	BASE RD 1 x "L"	2		X
2	WLDMT POLE STRAIN "A" x "B" x "C" x "D"	1		X
3	I.D. TAG - WA	1		X
4	PIPE A500-B-001-NV (1" SCH 80) 1" LONG	1		
5	SPAN WIRE CLAMP HALF	2		X
6	WLDMT CAP VENT 3 SET SCREW	1		X
7	COVER HH M16C 4 1/4X6 3/4 2 BOLT	2		X
8	BOLT HX HD 1-2-13NC X 1" F593C SS	1	X	
9	BOLT HVYHXHD 5-8-11X3-1-2L F3125 A325 TYPE 1 GV	5		
10	2 1/2" CHASE NIPPLE	2		
11	NUT HVY HX "J" A563 GR DH	24		
12	NUT HVY HX 5-8-11 NC A563 GV(DH)	5		
13	ELBOW 90 DEG 2 1/2"	2		X
14	PIPE NIPPLE THRD BOTH ENDS	2		X
15	RIVET POP 3/16X1/2X3/8 HD SS	4		X
16	SCRW HX SK HD 3-8-16NC X 1 SS	3		
17	SCRW HX SK BT HD 1-4-20NC X 1 SS	4		
18	WASHER FLAT "J" F436 GV	24		
19	WASH F.56 IDX1.375ODX.091 THK BRASS COMM. BRASS	2	X	
20	Ø"J" X "K" LG ANCHOR BOLT	4		
21	GASKET HH M16	2	X	

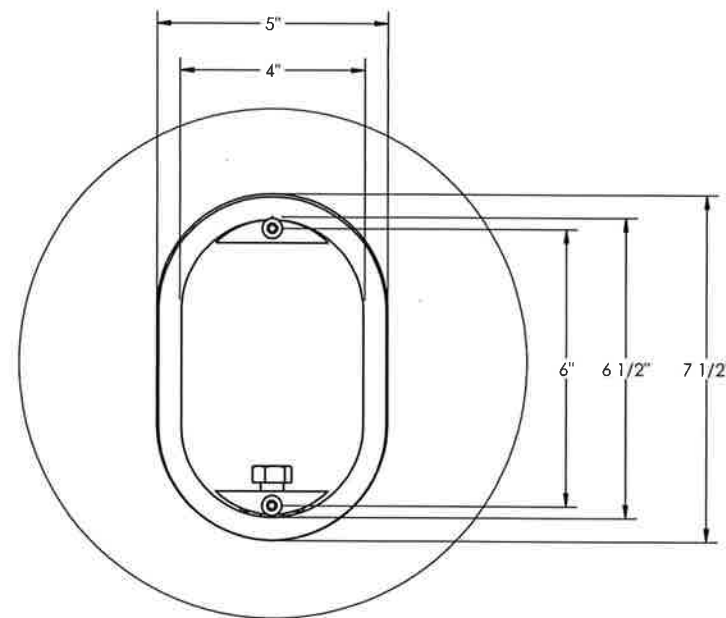
STRUCTURE FINISH SPECIFICATION			
GALV. OR PRIME COAT: HOT DIPPED GALV, PER ASTM A123 FINISH COAT: - COLOR: - FEDERAL OR RAL SPEC.: - WEIGHT W/GALV.: - WEIGHT W/GALV.&PAINT: - SURFACE AREA: - GAL. OF PAINT: -			
MILLERBERND 622 6TH ST. SO. WINSTED, MN 55395		THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION AND IS THE PROPERTY OF MILLERBERND MFG AND MAY NOT BE COPIED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM MILLERBERND MFG	
SALES ORDER NO.:	QTY:	STATE:	SHEET
74554	-	WA	1 OF 2
DESCRIPTION: SUB STRAIN POLES TYPE IV			
EST. WEIGHT:		DRAWING NO: 74554-WA-SP-IV	
PROJECT NAME: STATE OF WASHINGTON STRAIN POLES - TYPE IV			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 2/3/17	
CHK BY:		DATE:	



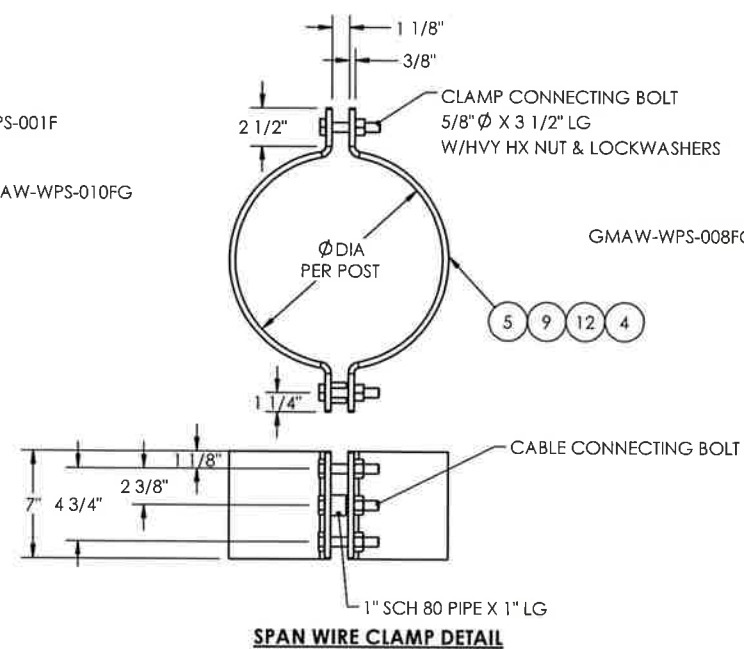
SECTION A-A
SCALE 1 : 16



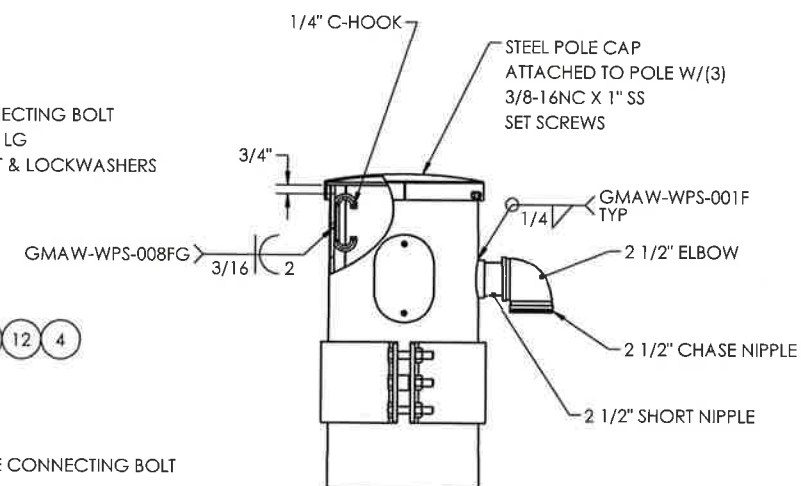
SECTION AP-AP
SCALE 1 : 16



DETAIL AR
SCALE 1 : 4



SPAN WIRE CLAMP DETAIL



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 Manufacturer's Pole Plan
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 By GB Date 9-14-2020



8-18-20 (EXPIRES 12-18-21)

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74554	-	WA	2 OF 2
DESCRIPTION: SUB STRAIN POLES TYPE IV			
EST. WEIGHT:		DRAWING NO.:	
		74554-WA-SP-IV	
PROJECT NAME: STATE OF WASHINGTON STRAIN POLES - TYPE IV			
PROJECT LOCATION: WA			
PROJECT NO.:		CONTROL/CONTRACT NO.:	
DWN BY: REBEKAH		DATE: 2/3/17	
CHK BY:		DATE:	

POLE DATA - STRAIN POLE - TYPE V


MMC #	SPAN WIRE HGT	"Z" MTG HT	QTY	POLE CLASS	POLE TUBE				BASE DETAIL			ANCHOR BOLT			
					THICK (IN) "A"	BASE O.D. (IN) "B"	TOP O.D. (IN) "C"	LENGTH (FT) "D"	SQUARE "S" (IN)	BOLT CIRCLE "F" (IN)	BOLT CENTERS "M" (IN)	THICKNESS "G" (IN)	HOLES/SLOT "H" (IN)	DIA "J" (IN)	LENGTH "K" (IN)
WA-SP-V-1900				1900#	1/4	11	6.8	30	15	15	10 5/8"	1 1/2	1 1/2	1 1/4	19
WA-SP-V-2700			2700#	12.5		8.3	17		17	12"	21				
WA-SP-V-3700			3700#	14	9.8	19	19		13 7/16"	23					
WA-SP-V-4800			4800#	14	9.8	20	20		14 1/8"	24					
WA-SP-V-5600			5600#	15	10.8										
WA-SP-V-6300			6300#	16	11.8	22	22		15 9/16"	26					
WA-SP-V-7200			7200#	17	12.8										

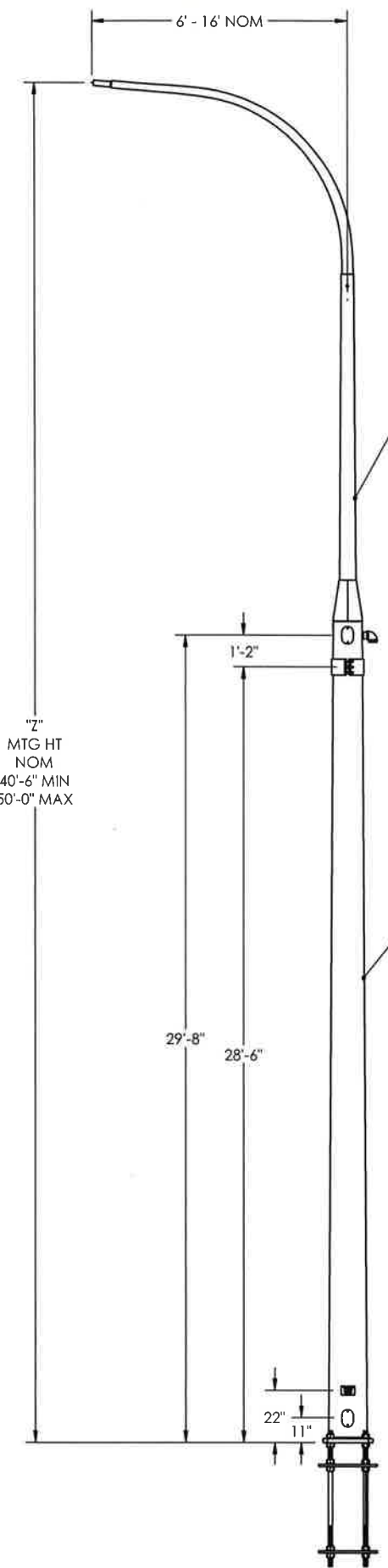
MATERIAL SPECIFICATIONS
POST: ASTM A572 GR50 BASE PLATE: ASTM A709 GR 50 MAST ARM: N/A MOUNTING PLATE: N/A HARDWARE FINISH: ASTM F2329 CABLE CLAMP CONNECTION BOLTS: ASTM F3125 GR A325 CABLE CLAMP CONNECTION NUTS: ASTM F563 GR DH CABLE CLAMP CONNECTION LOCKWASHERS: ASTM F436 ANCHOR BOLTS: ASTM F1554 GR105 ANCHOR BOLT NUTS: ASTM A563 GR DH ANCHOR BOLT WASHER: ASTM F436 WELDING ELBOW: PIPE: ASTM A53 GR B OR ASTM A500 GR B

DESIGN CRITERIA
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS. WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS VORTEX SHED: N/A FATIGUE CAT: N/A NATURAL WIND GUST: N/A LUMINAIRE: N/A LUMINAIRE WEIGHT: N/A SIGN: N/A SIGN WEIGHT: N/A

WELD SPECIFICATION
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS. EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION. WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS. < 6MM (0.25 IN) MT ≥ 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT). WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND 2015 AASHTO WELD INSPECTION SECTION 14.4.4.8

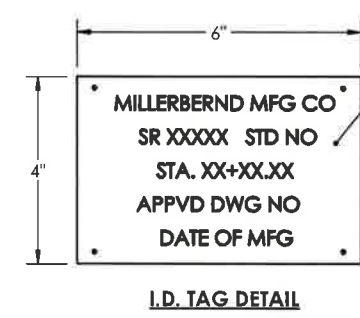
STRUCTURE FINISH SPECIFICATION
GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123 FINISH COAT: - COLOR: - FEDERAL OR RAL SPEC.: - WEIGHT W/GALV.: - WEIGHT W/GALV. & PAINT: - SURFACE AREA: - GAL. OF PAINT: -

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74554	-	WA	1 OF 3
DESCRIPTION: SUB STRAIN POLES TYPE V			
EST. WEIGHT:		DRAWING NO:	
		74554-WA-SP-V	
PROJECT NAME: STATE OF WASHINGTON STRAIN POLES - TYPE V			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 2/3/17	
CHK BY:		DATE:	



3/16 WALL EXTENSION SHAFT
 LENGTH VARIES TO ACCOMMODATE
 FINAL LUM MTG HGT "N"
 TO BE SPECIFIED BY CUSTOMER
 EXTENSION TO BE ROUND TAPERED SHAFT
 TAPER = .14 IN / FT

"A" x "B" x "C" x "D"
 POLE SHAFT

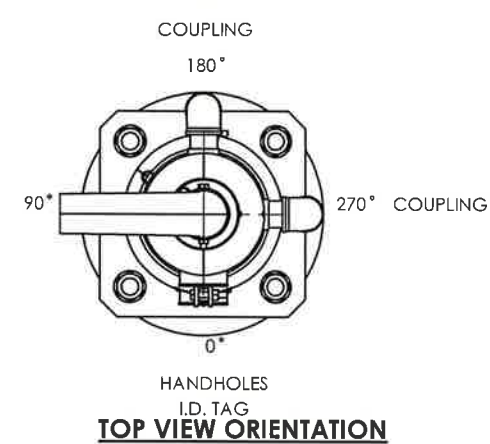


ALUMINUM ID TAG
 TEXT TO BE STAMPED AS SHOWN IN 5/16" HIGH LETTERS
 SECURED TO POST WITH (4) 3/16" DIA RIVETS

APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By SB Date 9-14-2020

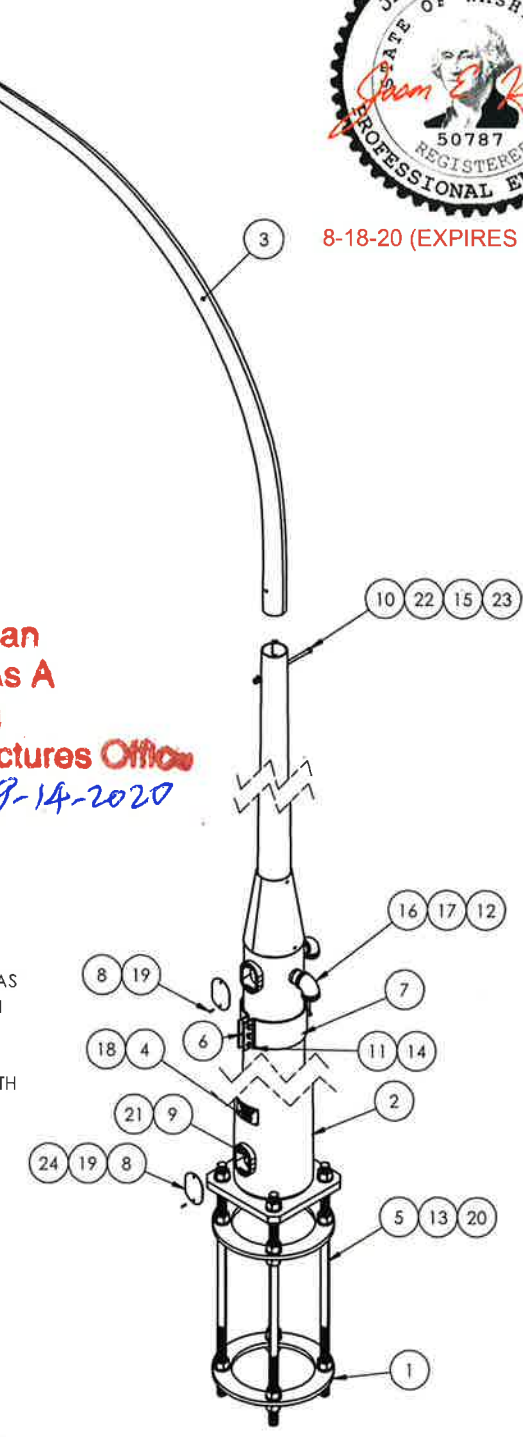


8-18-20 (EXPIRES 12-18-21)



NOTE: GALV HANG PIPES WILL BE WELDED EXTERNALLY AS REQUIRED BASED ON ORDER REQUIREMENTS, REMOVED AND REPAIRED PER ASTM A870 AS REQUIRED

NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION

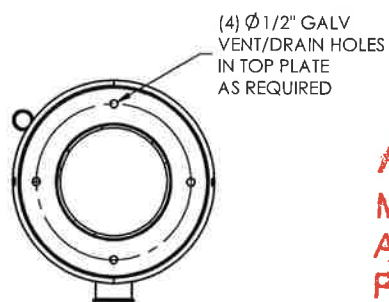
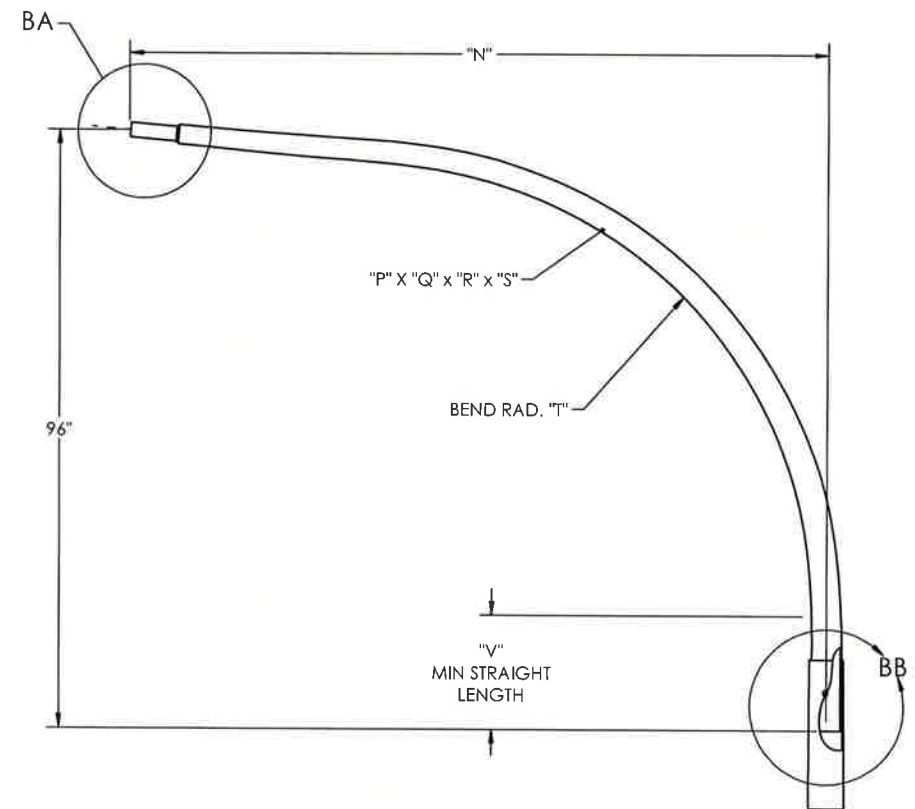
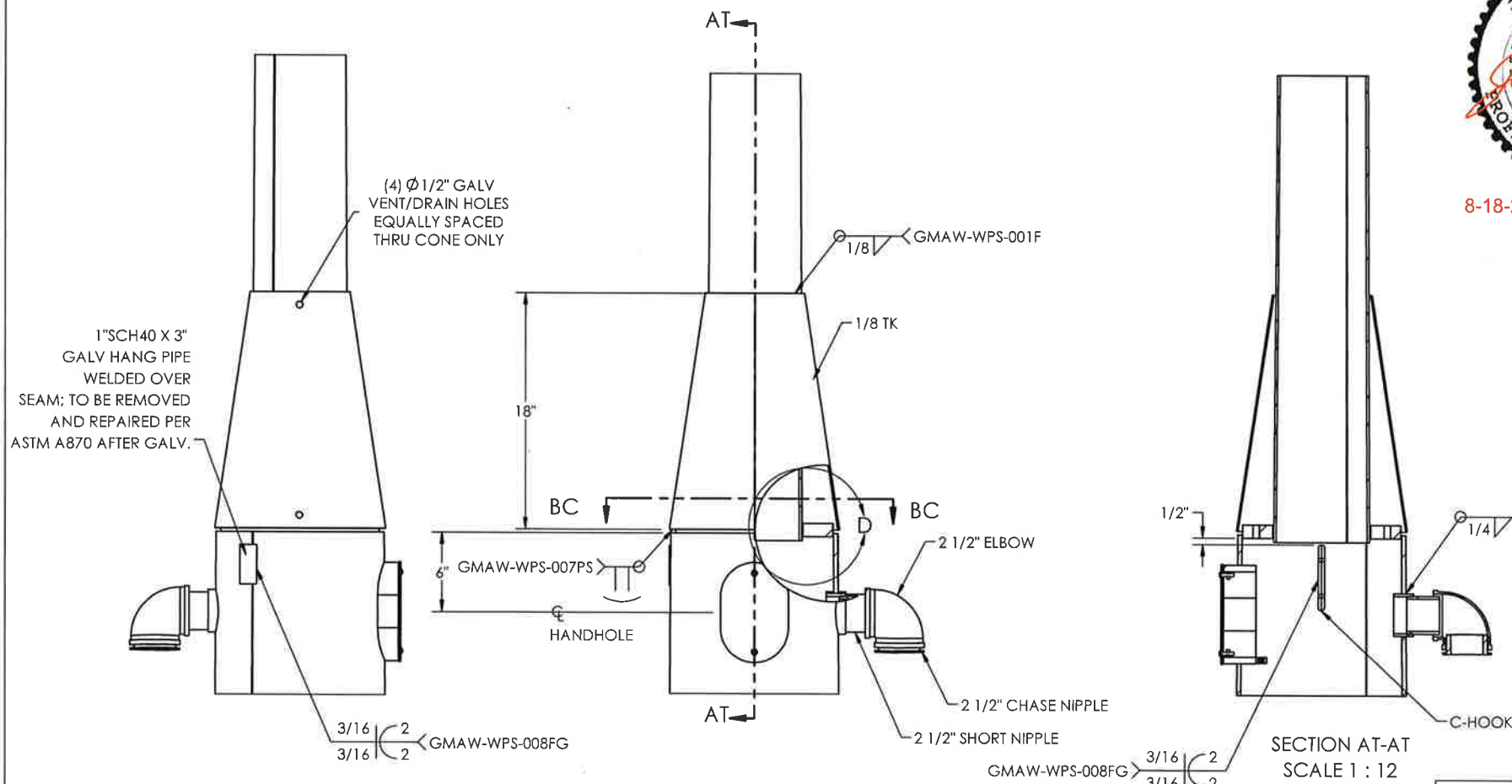


ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	BASE RD 1 x "L"	2		X
2	WLDMT POLE STRAIN "A" x "B" x "C" x "D"	1		X
3	WLDMT ARM DAVIT RD	1		X
4	I.D. TAG - WA	1	X	
5	Ø"J" x "K" LG ANCHOR BOLT	4		
6	PIPE A500-B-001-NV (1" SCH 80) 1" LONG	1		X
7	SPAN WIRE HALF CLAMP	2		X
8	COVER HH M16C 4 1/4X6 3/4 2 BOLT	2		X
9	BOLT HX HD 1-2-13NC X 1" F593C SS	1	X	
10	BOLT HX HD 5-8-11NC X 6-1-2 A307 GV	1		
11	BOLT HVYHXHD 5-8-11X3-1-2L F3125 A325 TYPE 1 GV	5		
12	2 1/2" CHASE NIPPLE	2		X
13	NUT HVY HX "J" A194 GV(2H)	24		
14	NUT HVY HX 5-8-11NC A563 GV(DH)	5		
15	NUT HX 5-8-11NC SS	1		
16	ELBOW 90 DEG 2 1/2"	2		X
17	PIPE NIPPLE THRD BOTH ENDS	2		X
18	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
19	SCRW HX SK BT HD 1-4-20NC X 1 SS	4		
20	WASHER FLAT "J" GV	24		
21	WASH F.56 IDX1.375ODX.091 THK BRASS COMM. BRASS	2	X	
22	WASHER FLAT 5/8 ASTM F436	2		
23	WASHLOCK5-8 ASTM A563 GR DH	1		
24	GASKET HH M16	2	X	

REV.	DESCRIPTION	DATE	DRFT
J	SHT 2 -WPS UPDATED FOR CONE TO POLE WELD	7/27/2020	RK
H	3700# WAS 1/4 X 1.5 X 10.8, UPDATED WELD NOTE, UPDATED PER COMMENTS	6/12/2020	RK
G	UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/12/2020	RK



8-18-20 (EXPIRES 12-18-21)

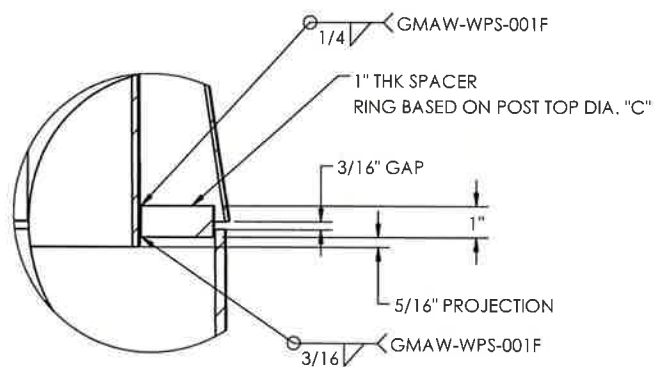


SECTION BC-BC
SCALE 1 : 12

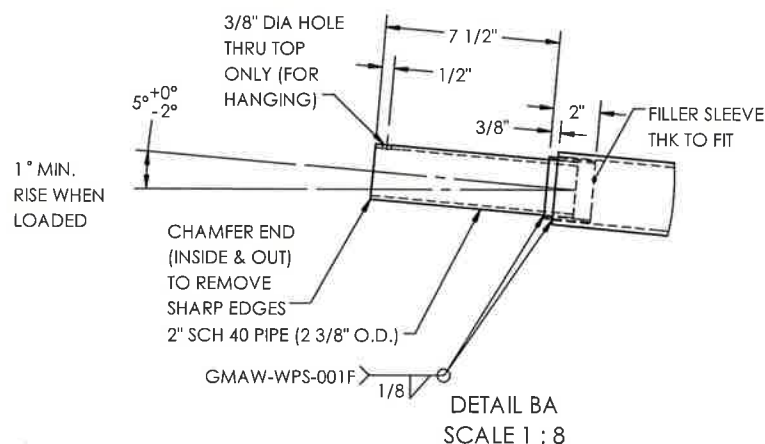
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 Manufacturer's Pole Plan
 Approved For Listing As A
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 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020

DAVIT LUMINAIRE DATA								
MMC #	QTY	SPAN (FT) "N"	TK (IN) "P"	BASE OD (IN) "Q"	END OD (IN) "R"	LENGTH (FT) "S"	BEND RAD (FT) "T"	MIN STRAIGHT (IN) "V"
		6'	11 GA	6.0	4.41	11'-4"	6'-0"	21.38"
		8'	11 GA	6.0	4.23	12'-8"		21.31"
		10'	11 GA	6.0	3.95	14'-6"		19.19"
		12'	11 GA	6.0	3.66	16'-9"		22.25"
		14'	11 GA	6.0	4.69	18'-2"		14.93"
		16'	11 GA	6.0	3.2	20'-0"		12.87"

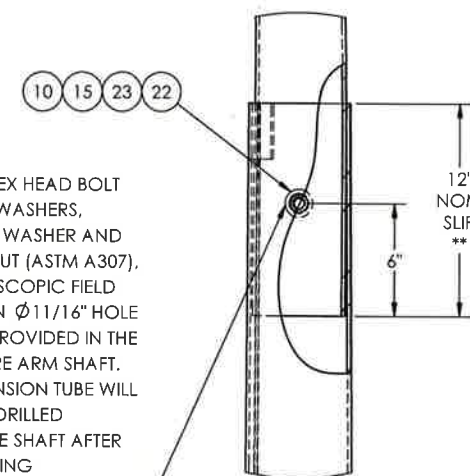
NOTE: 11GA = .1196"



DETAIL D
SCALE 1 : 6



DETAIL BA
SCALE 1 : 8



DETAIL BB
SCALE 1 : 10

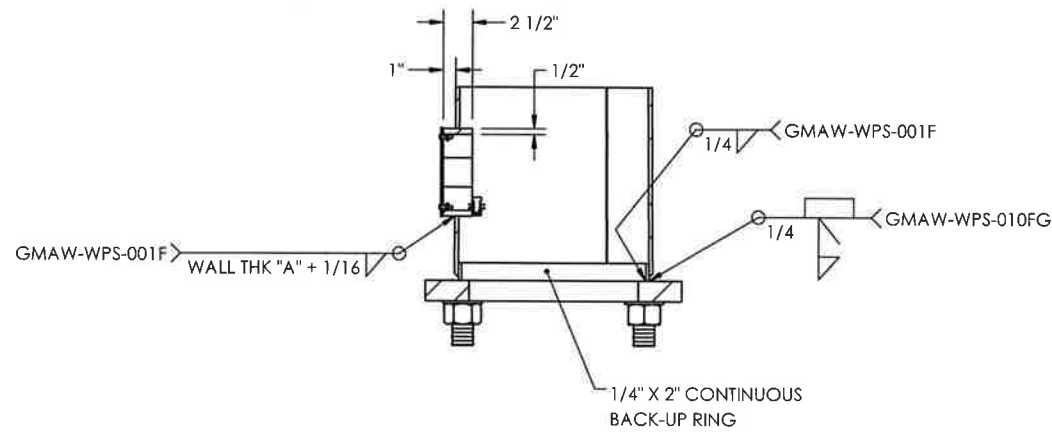
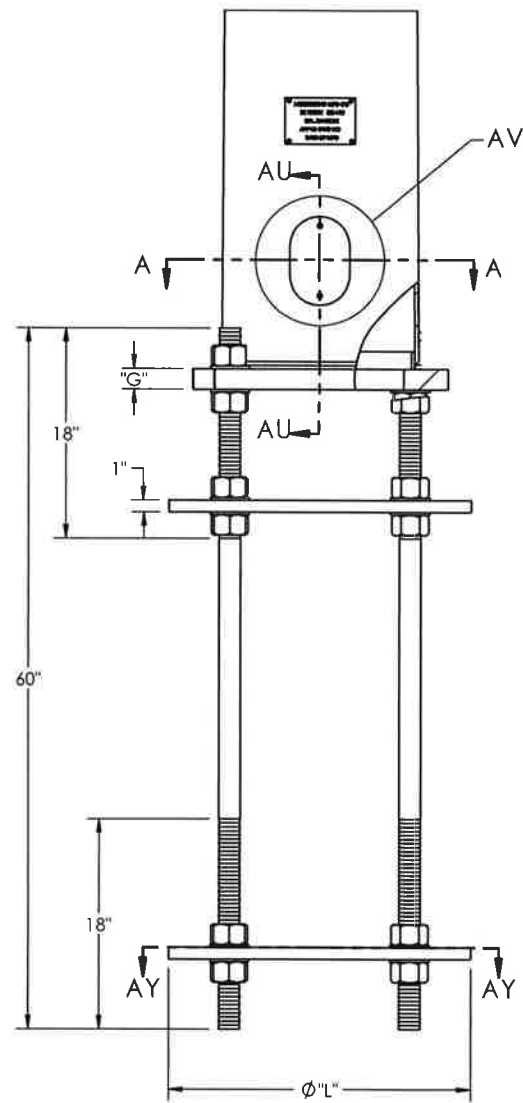
5/8" Ø HEX HEAD BOLT WITH (2) WASHERS, (1) LOCK WASHER AND (1) HEX NUT (ASTM A307), FOR TELESCOPIC FIELD JOINT. AN Ø 11/16" HOLE WILL BE PROVIDED IN THE LUMINAIRE ARM SHAFT. THE EXTENSION TUBE WILL BE FIELD DRILLED IN FEMALE SHAFT AFTER POSITIONING OF THE ARM

** THE TOP DAVIT ATM SECTION WILL SLIP FIT OVER BOTTOM POLE SECTION. OVERLAP MATING SURFACE SHALL BE SMOOTH AND FREE OF BURS, DENTS OR LUMPS OF ZINC

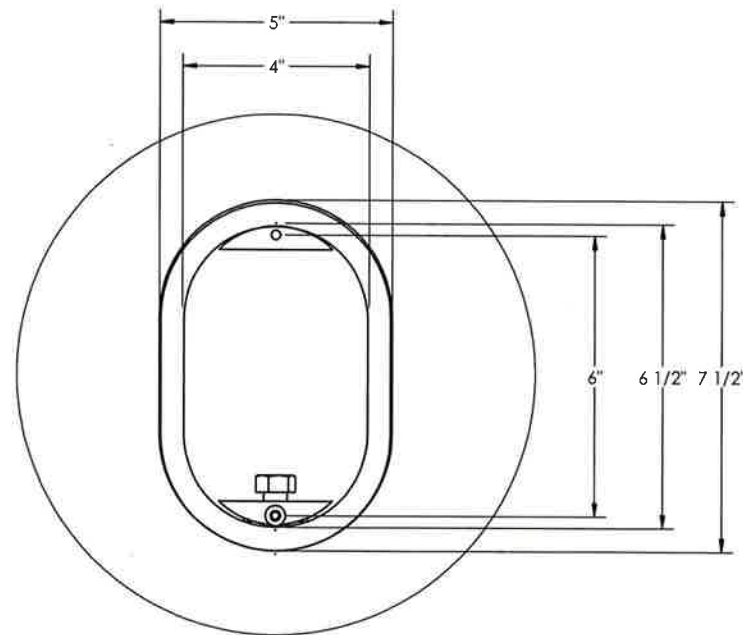
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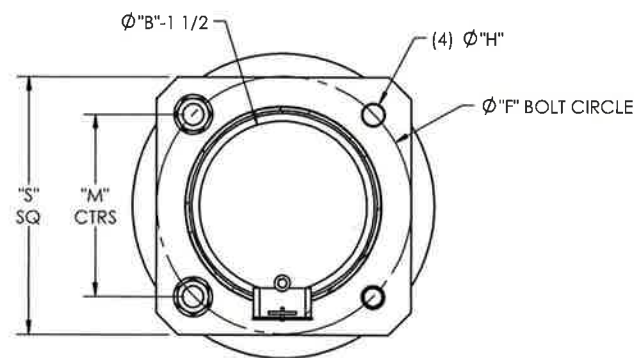
SALES ORDER NO.: 74554	QTY: -	STATE: WA	SHEET 2 OF 3
DESCRIPTION: SUB STRAIN POLES TYPE V			
EST. WEIGHT:	DRAWING NO.: 74554-WA-SP-V		
PROJECT NAME: STATE OF WASHINGTON STRAIN POLES - TYPE V			
PROJECT LOCATION: WA			
DWN BY: REBEKAH	DATE: 2/3/17		
CHK BY:	DATE:		



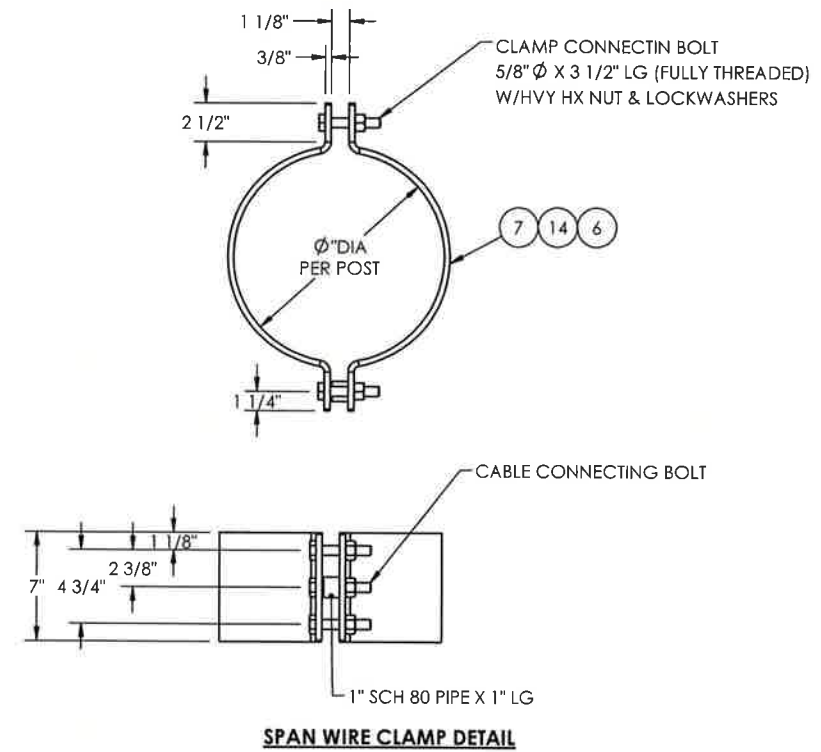
SECTION AU-AU
SCALE 1 : 16



DETAIL AV
SCALE 1 : 4



SECTION A-A
SCALE 1 : 16

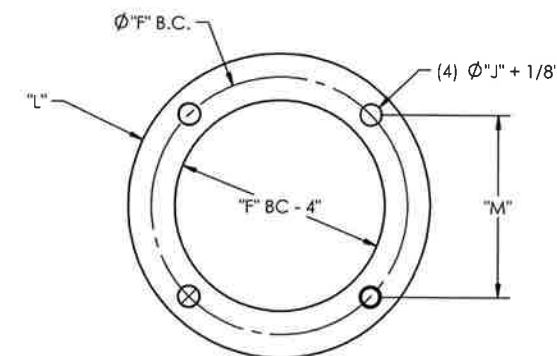


SPAN WIRE CLAMP DETAIL

APPROVED
 Manufacturer's Pole Plan
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 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



8-18-20 (EXPIRES 12-18-21)

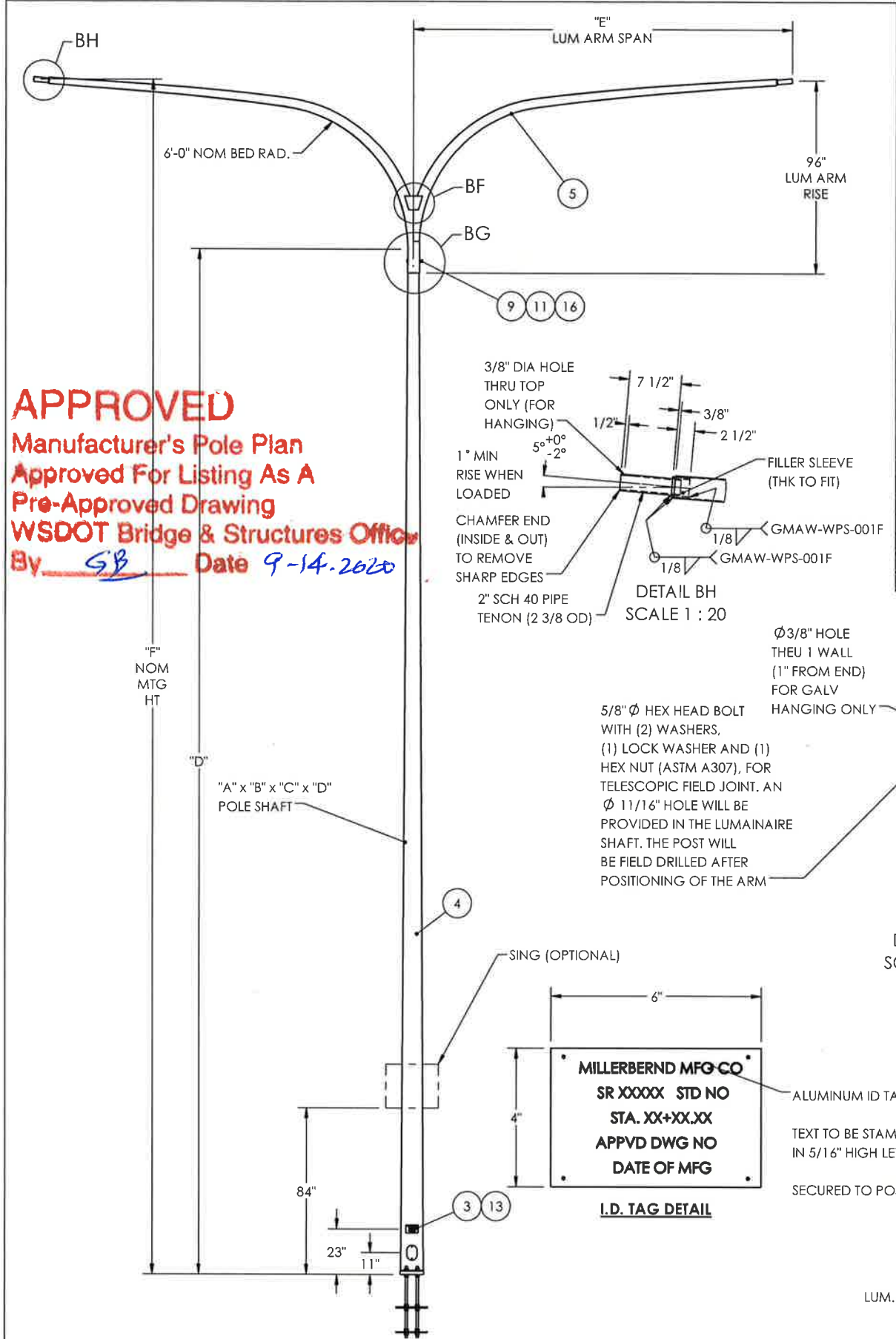


SECTION AY-AY
SCALE 1 : 16

ANCHOR PLATE DETAIL

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74554	-	WA	3 OF 3
DESCRIPTION: SUB STRAIN POLES TYPE V			
EST. WEIGHT:	DRAWING NO: 74554-WA-SP-V		
PROJECT NAME: STATE OF WASHINGTON STRAIN POLES - TYPE V			
PROJECT LOCATION: WA			
PROJECT NO.:	CONTROL/CONTRACT NO.:		
DWN BY: REBEKAH	DATE: 2/3/17		
CHK BY:	DATE:		

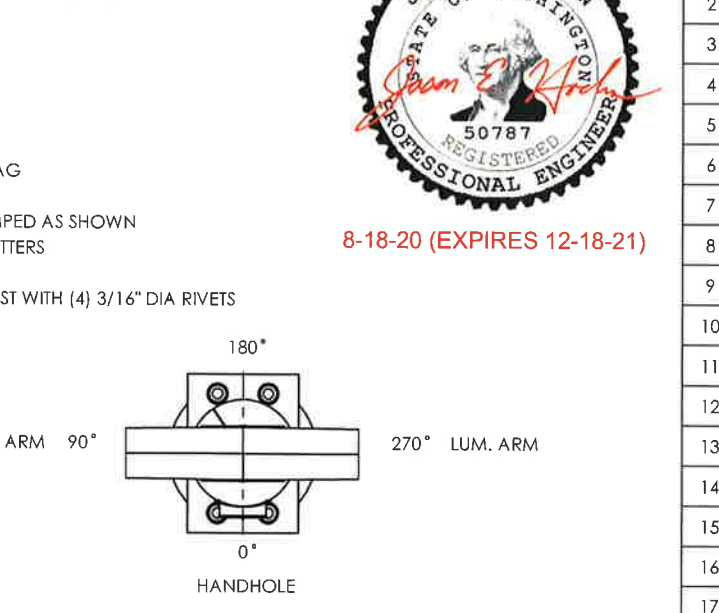
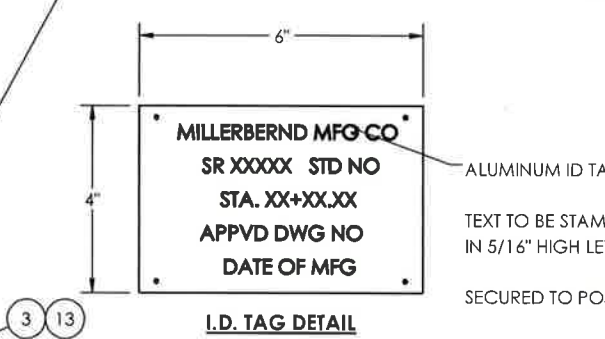
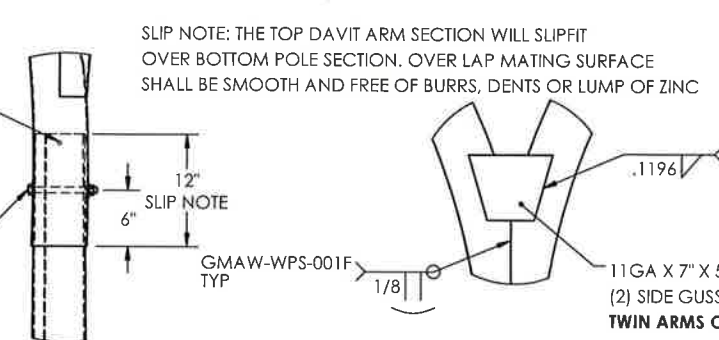
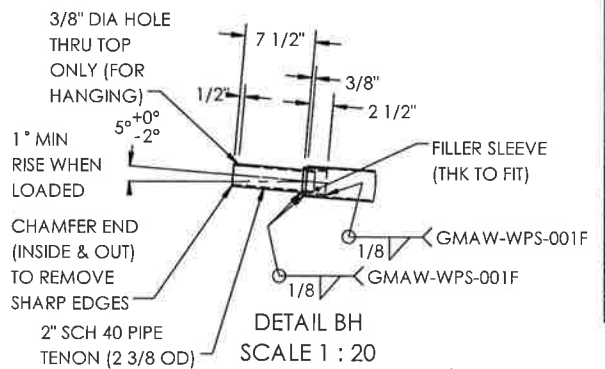
APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
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 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020



REVISIONS			
REV.	DESCRIPTION	DATE	DRFT
H	SHEET WAS NOTED AS 2 OF 2	7/20/2020	RK
G	UPDATED WELD NOTE UPDATED PER COMMENTS	6/12/2020	RK
F	UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/12/2020	RK

NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION

POLE DATA - LIGHT POLE - TYPE 1 - BARRIER BASE POLE									
MMC #	QTY	POLE TUBE				ANCHOR BOLT DIA "H"	LUMINAIRE ARM		
		THICK (IN) "A"	BASE OUTER DIA (IN) "B"	TOP OUTER DIA (IN) "C"	LENGTH (FT) "D"		"E" SPAN	"F" MTG HT	
WA-LP1-BB-6S/6T-30							6'-0"		
WA-LP1-BB-8S/8T-30							8'-0"		
WA-LP1-BB-10S/10T-30							10'-0"		
WA-LP1-BB-12S/12T-30			8.72	5.5	23'-0"	1"	12'-0"	30'-0"	
WA-LP1-BB-14S/14T-30							14'-0"		
WA-LP1-BB-16S/16T-30							16'-0"		
WA-LP1-BB-6S/6T-35							6'-0"		
WA-LP1-BB-8S/8T-35							8'-0"		
WA-LP1-BB-10S/10T-35							10'-0"		
WA-LP1-BB-12S/12T-35			9.42	5.5	28'-0"	1"	12'-0"	35'-0"	
WA-LP1-BB-14S/14T-35							14'-0"		
WA-LP1-BB-16S/16T-35							16'-0"		
WA-LP1-BB-6S/6T-40							6'-0"		
WA-LP1-BB-8S/8T-40							8'-0"		
WA-LP1-BB-10S/10T-40							10'-0"		
WA-LP1-BB-12S/12T-40			10.12	5.5	33'-0"	1"	12'-0"	40'-0"	
WA-LP1-BB-14S/14T-40							14'-0"		
WA-LP1-BB-16S/16T-40							16'-0"		
WA-LP1-BB-6S/6T-50							6'-0"		
WA-LP1-BB-8S/8T-50							8'-0"		
WA-LP1-BB-10S/10T-50							10'-0"		
WA-LP1-BB-12S/12T-50			11.52	5.5	43'-0"	1 1/8"	12'-0"	50'-0"	
WA-LP1-BB-14S/14T-50							14'-0"		
WA-LP1-BB-16S/16T-50							16'-0"		



2015 AASHTO DEVIATION NOTES:

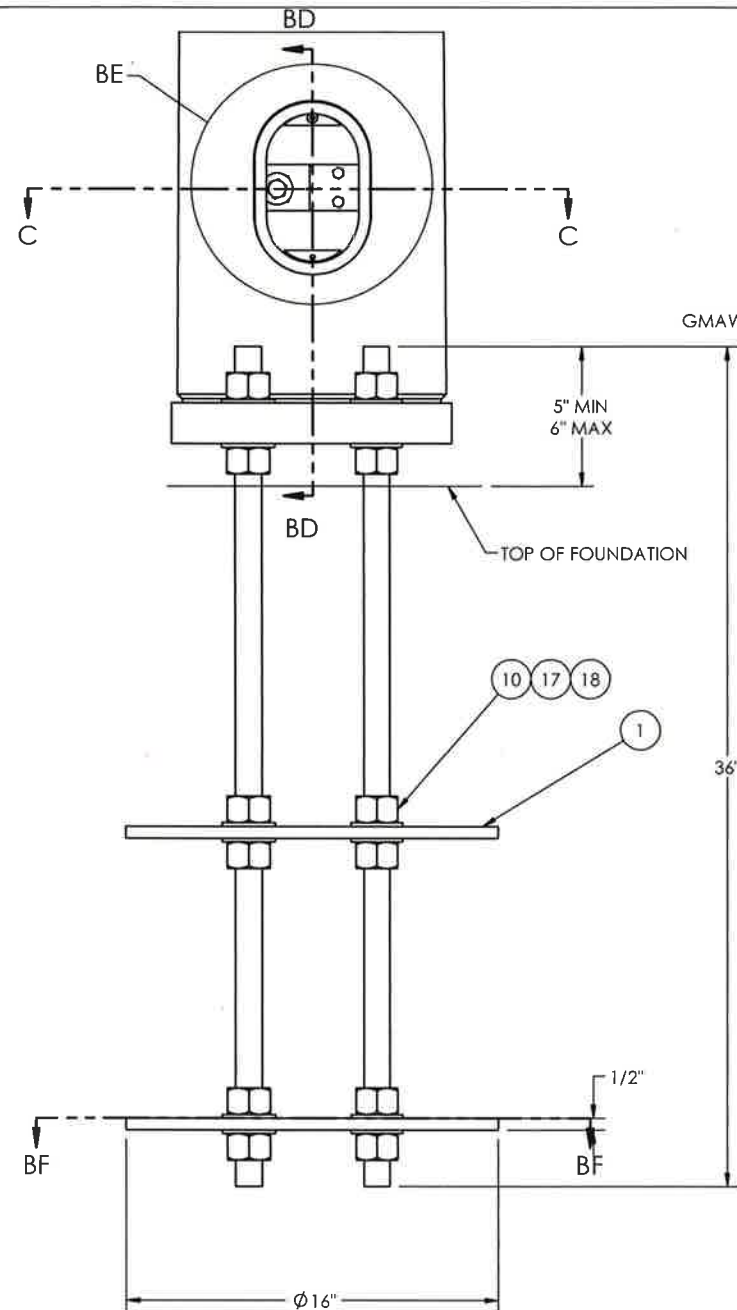
- SECTION 5.6.6 FOR HANDHOLE CLEAR DISTANCE AND 40% OF POLE WIDTH REQUIREMENT. STRESSES ARE REVIEWED AT EACH HANDHOLE FOR STRUCTURE ADEQUACY.
- PER AASHTO 2013 SECTION 5.17.4.3 - BEDDING STRESSES IN INDIVIDUAL BOLT CAN BE IGNORED IF THE STANDOFF DISTANCE BETWEEN THE TOP OF THE FOUNDATION AND BOTTOM OF THE LEVELING NUT IS LESS THAN ON BOLT DIAMETER.



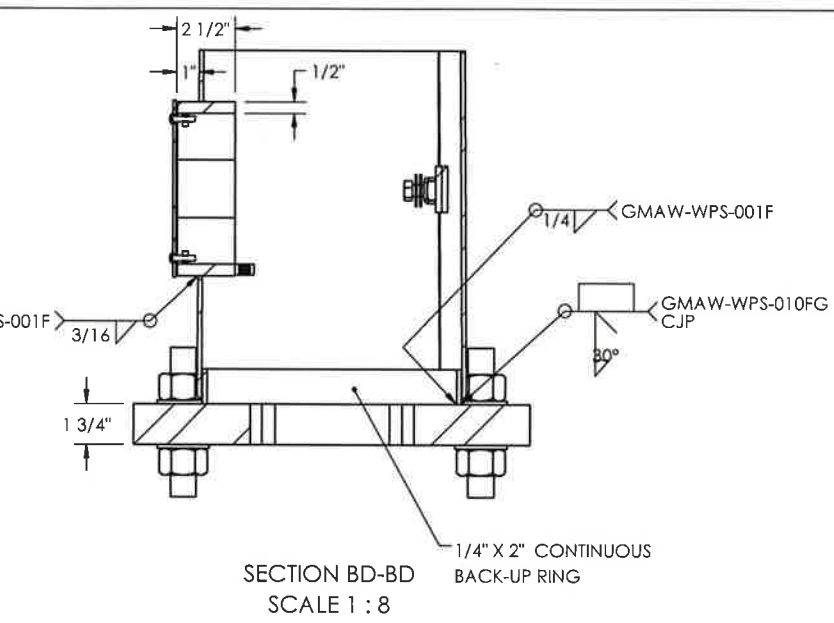
8-18-20 (EXPIRES 12-18-21)

MATERIAL SPECIFICATIONS			
POST: ASTM A572 GR55 BASE PLATE: ASTM A709 GR 50 MAST ARM: N/A MOUNTING PLATE: N/A HARDWARE FINISH: ASTM F2329 CONNECTION BOLTS: CONNECTION NUTS: CONNECTION WASHERS: ANCHOR BOLTS: ASTM F1554 GR105 ANCHOR BOLT NUTS: ASTM A563 GR DH ANCHOR BOLT WASHER: ASTM F436 WELDING ELBOW: F436 PIPE: ASTM A53 GR B OR ASTM A500 GR B			
DESIGN CRITERIA			
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS. WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS VORTEX SHED: N/A FATIGUE CAT: N/A NATURAL WIND GUST: N/A LUMINAIRE: 3.3 SQ FT EPA LUMINAIRE WEIGHT: 50 LBS SIGN: 20 SQ FT @ 7' FROM BASE SIGN WEIGHT: 65 LBS			
WELD SPECIFICATION			
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS. EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.			
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS. < 6MM (0.25 IN) MT ≥ 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).			
WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND ASSHTO 2015 WELD INSPECTION SECTION 14.4.4.8			
STRUCTURE FINISH SPECIFICATION			
GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123 FINISH COAT: - COLOR: - FEDERAL OR RAL SPEC.: - WEIGHT W/GALV.: - WEIGHT W/GALV. & PAINT: - SURFACE AREA: - GAL. OF PAINT: -			
		622 6TH ST. SO. WINSTED, MN 55395	
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74515	-	WA	1 OF 2
DESCRIPTION:			
SUB LIGHT POLES TYPE 1			
EST. WEIGHT:		DRAWING NO.:	
		74515-WA-LP1-BB	
PROJECT NAME:			
STATE OF WASHINGTON LIGHT POLES - TYPE 1			
PROJECT LOCATION:			
WA			
DWN BY: REBEKAH		DATE: 2/3/17	
CHK BY:		DATE:	

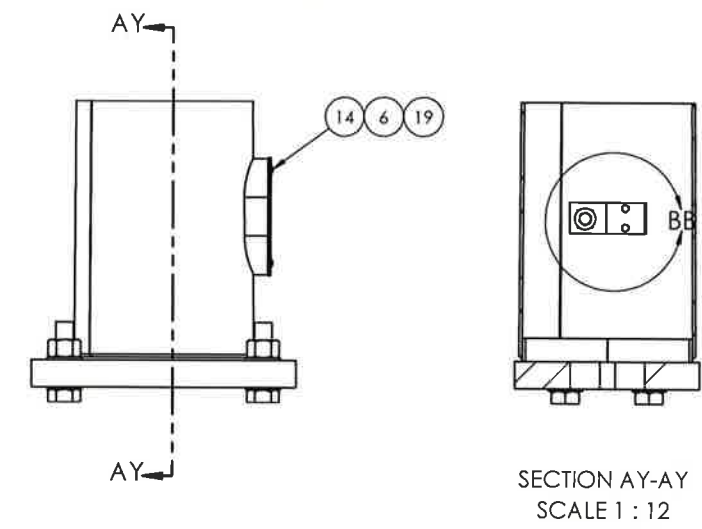
ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	BASE RD 1/2X16	2		X
2	GROUND MTG PLATE	2	X	X
3	I.D. TAG - WA	1	X	
4	WLSMT POLE LIGHT "A" x "B" x "C" x "D"	1		X
5	WLDMT ARM TWIN (SINGLE NOT SHOWN)	1		X
6	COVER HH M16C 4 1/4X6 3/4 2 BOLT	1		X
7	BOLT HX HD 1-2-13NC X 1" F593C SS	1	X	
8	BOLT HX HD 1/4-20NC X 1/2 F593C SS	2		
9	BOLT HX HD 5-8-11 NC X 7 A307 GV	1		
10	NUT HVY HX "H" A563 DH GV	24		
11	NUT HX 5-8-11 INC ASTM A563 GR DH	1		
12	NUT SQ 1-2-13 SS	1		
13	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
14	SCRW HX SK BT HD 1-4-20NC X 1 SS	2		
15	WASH F.56 IDX1.375ODX.091 THK BRASS COMM. BRASS	2	X	
16	WASHER FLAT 5/8 ASTM F436	2		
17	WASHER WIDE FLAT "H" GV	24		
18	ANCHOR BOLT "H"X36 LG ALL THREAD	4		
19	GASKET HH M16	1	X	



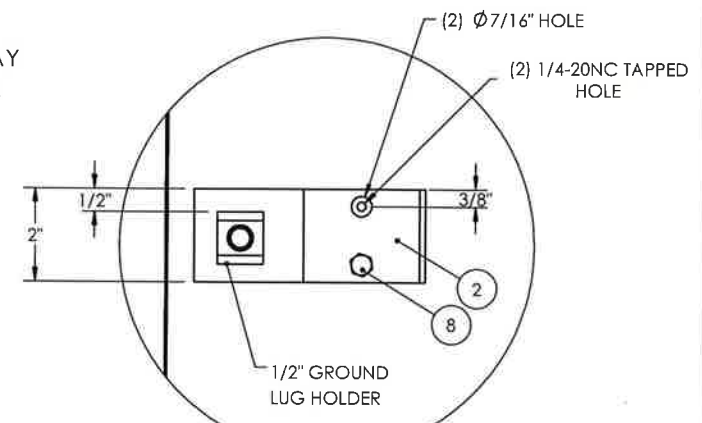
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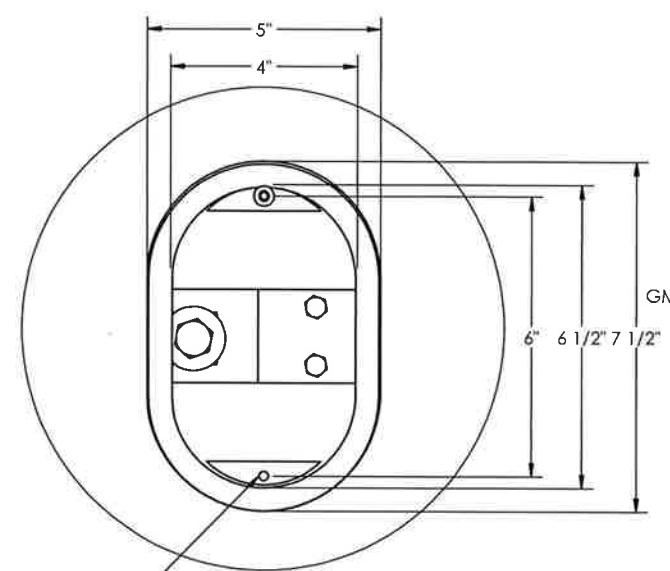
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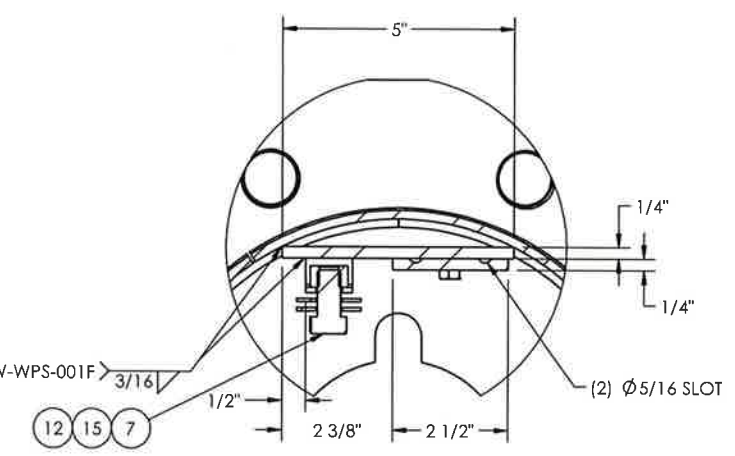
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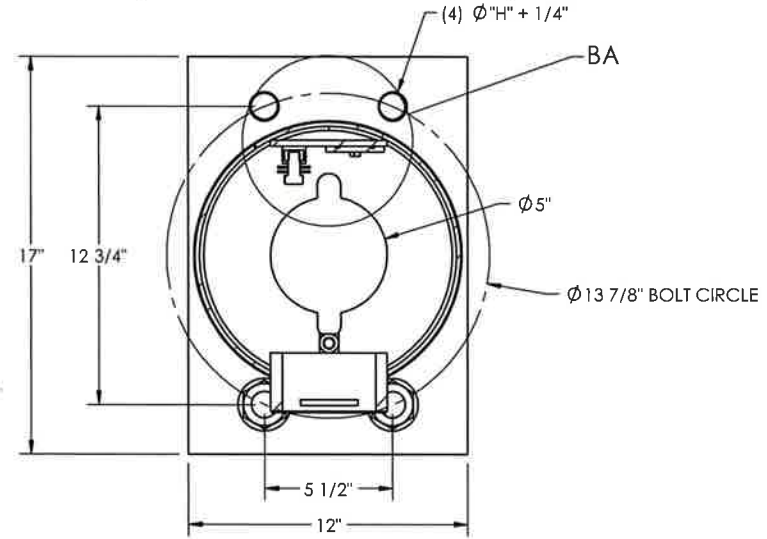
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SCALE 1 : 4



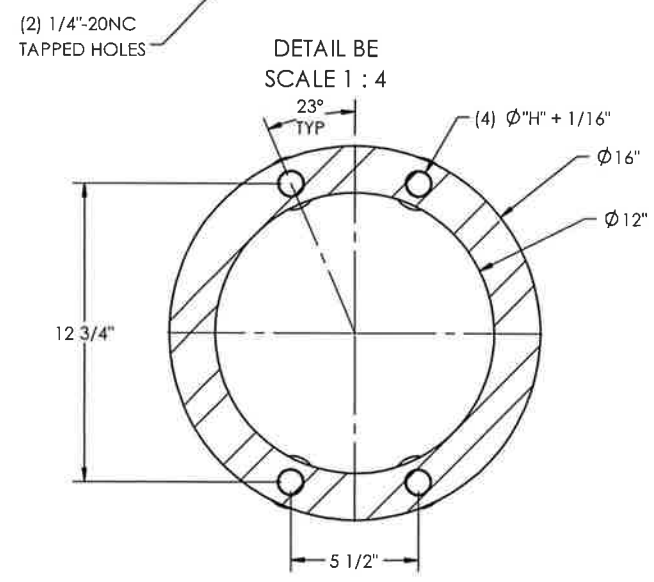
DETAIL BE
SCALE 1 : 4



DETAIL BA
SCALE 1 : 4



SECTION C-C
SCALE 1 : 8



ANCHOR PLATE DETAIL

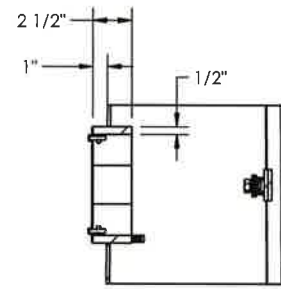
SECTION BF-BF
SCALE 1 : 8

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 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 9-14-2020

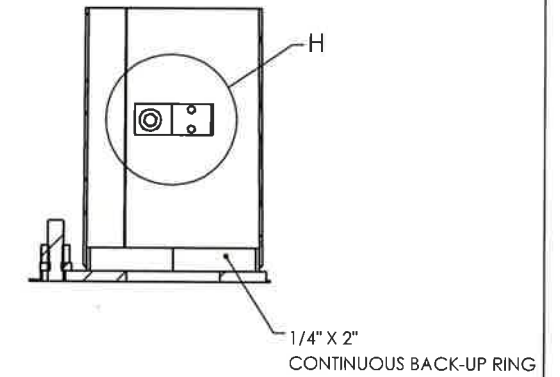
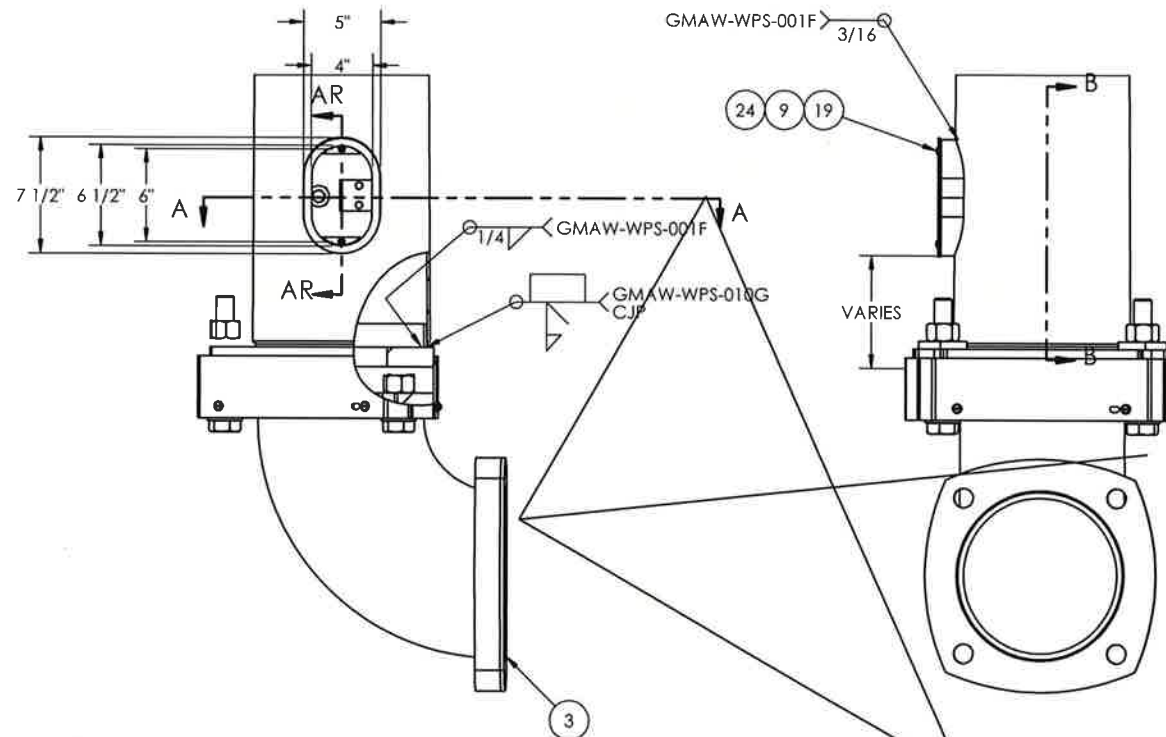


8-18-20 (EXPIRES 12-18-21)

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SALES ORDER NO.:	QTY:	STATE:	SHEET
74515	-	WA	2 OF 2
DESCRIPTION: SUB LIGHT POLES TYPE 1			
EST. WEIGHT:	DRAWING NO: 74515-WA-LP1-BB		
PROJECT NAME: STATE OF WASHINGTON LIGHT POLES - TYPE 1			
PROJECT LOCATION: WA			
PROJECT NO.:	CONTROL/CONTRACT NO.:		
DWN BY: REBEKAH	DATE: 2/3/17		
CHK BY:	DATE:		

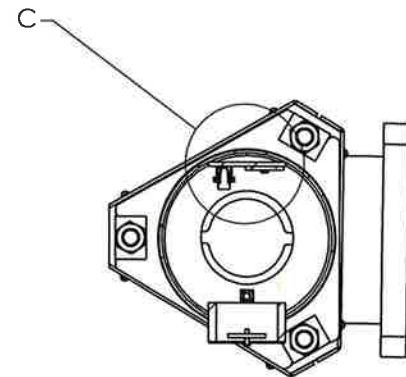


SECTION AR-AR
SCALE 1 : 12

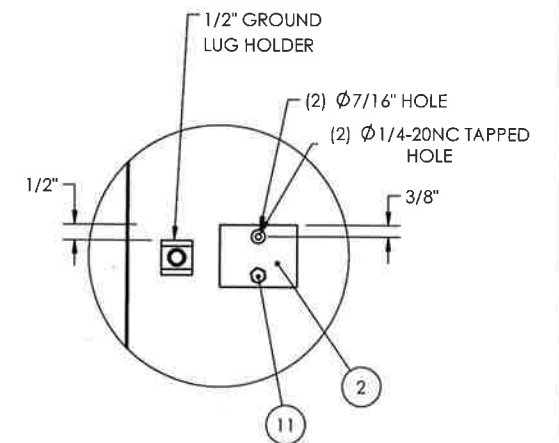


SECTION B-B
SCALE 1 : 12

1/4" THK X 15", SQUARE "FABREEKA" FABRIC PAD WITH 5" DIA CENTER HOLE AND (4) 1 1/4" DIA BOLT HOLES FOR 1" DIA BOLTS. CONTRACTOR TO CEMENT TO FLANGE PLATE AND TRIM OUTSIDE EDGES FLUSH

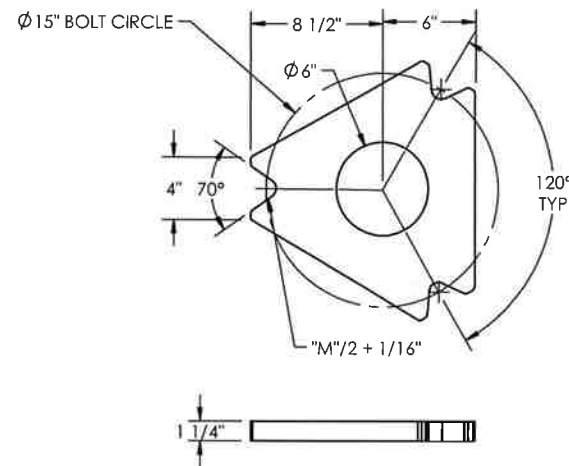


SECTION A-A
SCALE 1 : 12

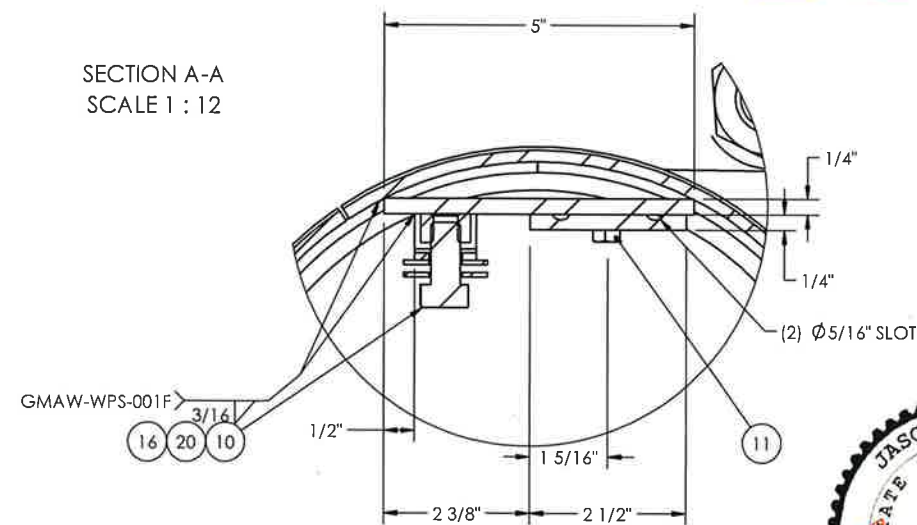


DETAIL H
SCALE 1 : 6

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By GB Date 9-14-2020



POST BASE PLATE DETAIL

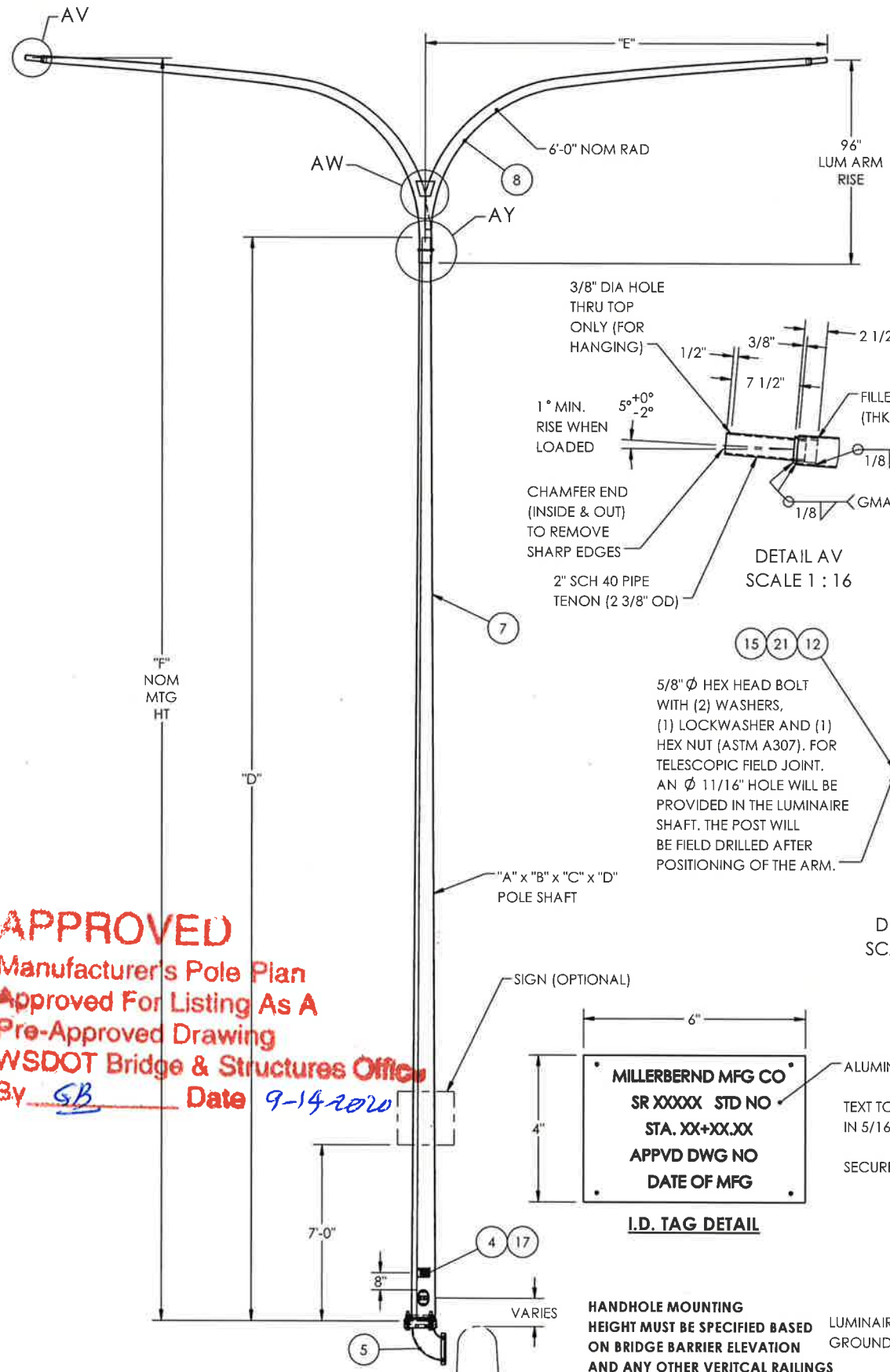


DETAIL C
SCALE 1 : 3



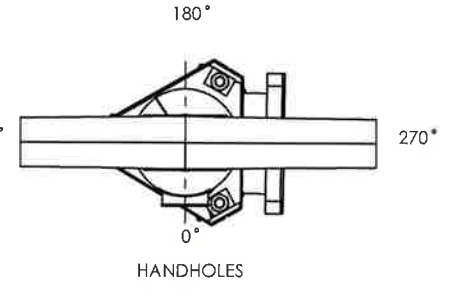
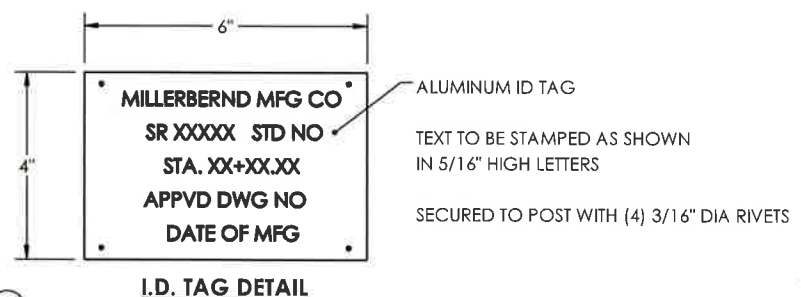
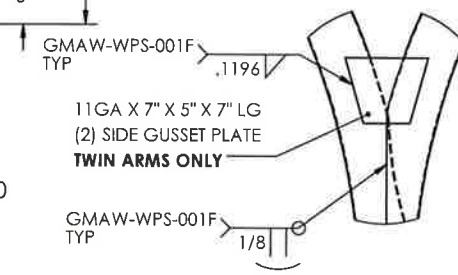
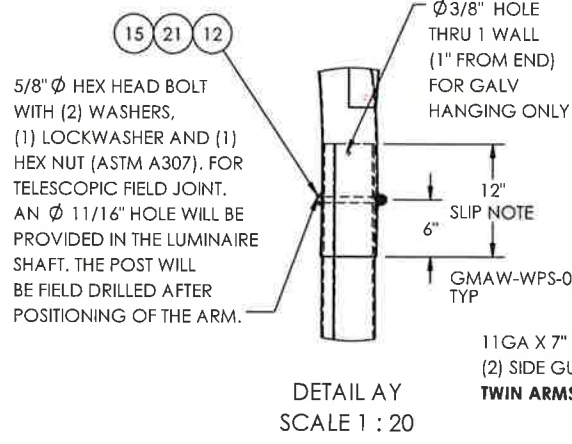
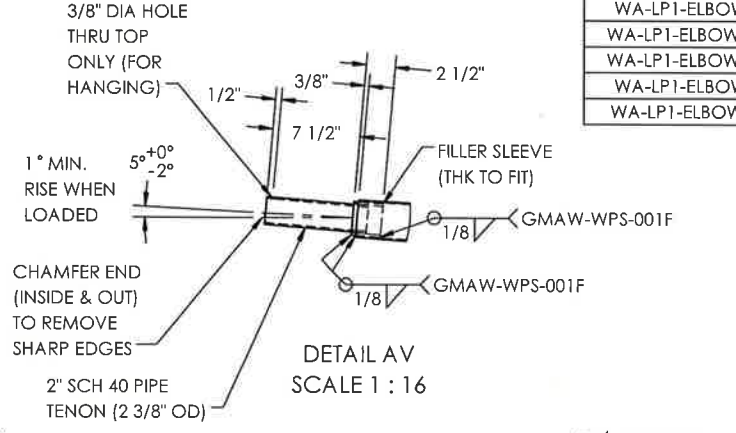
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74515	-	WA	2 OF 3
DESCRIPTION: SUB POLE LIGHT RD TYPE 1 - ELBOW			
EST. WEIGHT:		DRAWING NO:	
		74515-WA-LP1-ELBOW	
PROJECT NAME: STATE OF WASHINGTON LIGHT POLES TYPE 1			
PROJECT LOCATION: WA			
PROJECT NO.:		CONTROL/CONTRACT NO.:	
DWN BY: REBEKAH		DATE: 2/20/17	
CHK BY:		DATE:	



APPROVED
 Manufacturer's Pole Plan
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 WSDOT Bridge & Structures Office
 By SB Date 9-14-2020

POLE DATE - LIGHT POLE - TYPE 2 - ELBOW MOUNT								
MMC #	QTY	POLE TUBE			LUMINAIRE ARM		CONNECTING BOLT "M" (IN)	
		THICK (IN) "A"	BASE OD (IN) "B"	TOP OD (IN) "C"	LENGTH (FT) "D"	"E" SPAN		"F" MTG HT
WA-LP1-ELBOW-6S/6T-30						6'-0"		
WA-LP1-ELBOW-8S/8T-30						8'-0"	30'-0"	
WA-LP1-ELBOW-10S-30			8.72	5.5	23'-0"	10'-0"		
WA-LP1-ELBOW-12S-30						12'-0"		
WA-LP1-ELBOW-6S/6T-35						6'-0"		
WA-LP1-ELBOW-8S/8T-35			9.42	5.5	28'-0"	8'-0"	35'-0"	1"
WA-LP1-ELBOW-10S-35						10'-0"		
WA-LP1-ELBOW-12ST-35						12'-0"		
WA-LP1-ELBOW-6S/6T-40						6'-0"		
WA-LP1-ELBOW-8S/8T-40			10.12	5.5	33'-0"	8'-0"	40'-0"	
WA-LP1-ELBOW-10S-40						10'-0"		
WA-LP1-ELBOW-12S-40						12'-0"		
WA-LP1-ELBOW-6S/6T-50						6'-0"		
WA-LP1-ELBOW-8S/8T-50			3/16	11.52	43'-0"	8'-0"	50'-0"	1 1/8"
WA-LP1-ELBOW-10S-50						10'-0"		
WA-LP1-ELBOW-12ST-50						12'-0"		



*** INSTALL ONLY LUMINAIRE POLES WITH SINGLE MASTARM 12'-0" OR LESS AND DOUBLE MASTARM 8'-0" OR LESS ON ELBOW SUPPORT***
 MUST SPECIFY LOWER HANDHOLE MOUNTING HEIGHT AT TIME OF ORDER
 MUST SPECIFY SLOPE OF ELBOW AT TIME OF ORDER
 FIELD MEASURE BARRIER BACK SLOPE PRIOR TO MANUFACTURING ELBC

MMC #	LOWER HH HGT	BARRIER BACK SLOPE ANGLE

SLIP NOTE: THE TOP DAVIT ARM SECTION WILL SLIPFIT OVER BOTTOM POLE SECTION. OVER LAP MATING SURFACE SHALL BE SMOOTH AND FREE OF BURRS, DENTS OR LUMPS OF ZINC



8-18-20 (EXPIRES 12-18-21)

ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	WASHER 1/2" RECT	6		X
2	GROUND MTG PLATE	1	X	
3	PAD FABREEKA 1/4	1		
4	I.D. TAG - WA	1	X	
5	WLDMNT BRIDGE ELBOW STRAIN 0 DEG	1		X
6	BAND TRI 3/16X4"	3		
7	WLDMT POLE LIGHT "A" x "B" x "C" x "D"	1		X
8	WLDMT ARM TWIN (SINGLE NOT SHOWN)	1		X
9	COVER HH M16C 4 1/4X6 3/4 2 BOLT	1		X
10	BOLT HX HD 1-2-13NC X 1" F593C SS	1		
11	BOLT HX HD 1/4-20NC X 1/2 F593C SS	2		
12	BOLT HX HD 5-8-11 NC X 7/8 A307 GV	1		
13	BOTL HVY HX HD "M" X 8 1/2" A449	3		
14	NUT HVY HX "M" A563 DH GV	6		
15	NUT HX 5-8-11NC ASTM A563 GR DH	1		
16	NUT SQ 1-2-13 SS	1		
17	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
18	SCRWSLDRHDMACH 5-16-18NCX1-2 SS	6		
19	SCRW HX SK BT HD 1-4-20NC X 1 SS	2		
20	WASH F.56 IDX1.375ODX.091 THK BRASS COMM. BRASS	2	X	
21	WASHER FLAT 5/8 ASTM F436	2		
22	WASHER LOCK 5/16 SS	6		
23	WASHER WIDE FLAT "M" GV	3		
24	GASKET HH M16	1	X	

MATERIAL SPECIFICATIONS			
POST: ASTM A572 GR55 BASE PLATE: ASTM A36 MAST ARM: ASTM A572 GR55 MOUNTING PLATE: ASTM A36 HARDWARE FINISH: F2329 CONNECTION BOLTS: ASTM F1554 GR105 OR A449 CONNECTION NUTS: ASTM A563 GR DH CONNECTION WASHERS: ASTM F436 ANCHOR BOLTS: ANCHOR BOLT NUTS: ANCHOR BOLT WASHER: WELDING ELBOW: A234 GR WPB - 35KSI PIPE: ASTM A53 GR B OR ASTM A500 GR B			
DESIGN CRITERIA			
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS. WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS VORTEX SHED: N/A FATIGUE CAT: N/A NATURAL WIND GUST: N/A LUMINAIRE: 3.3 SQ FT EPA LUMINAIRE WEIGHT: 50 LBS SIGN: 20 SQ FT @ 7' FROM BASE SIGN WEIGHT: 65 LBS			
WELD SPECIFICATION			
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE. FLANGE AND BUTT WELDED SHAFTS. EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER: 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.			
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS. < 6MM (0.25 IN) MT >= 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).			
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STRUCTURE FINISH SPECIFICATION			
GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123 FINISH COAT: - COLOR: - FEDERAL OR RAL SPEC.: - WEIGHT W/GALV.: - WEIGHT W/GALV.&PAINT: - SURFACE AREA: GAL. OF PAINT: -			
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74515	-	WA	1 OF 3
DESCRIPTION:			
SUB POLE LIGHT RD TYPE 1 - ELBOW			
EST. WEIGHT:		DRAWING NO:	
		74515-WA-LP1-ELBOW	
PROJECT NAME:			
STATE OF WASHINGTON LIGHT POLES TYPE 1			
PROJECT LOCATION:			
WA			
DWN BY: REBEKAH		DATE: 2/20/17	
CHK BY:		DATE:	

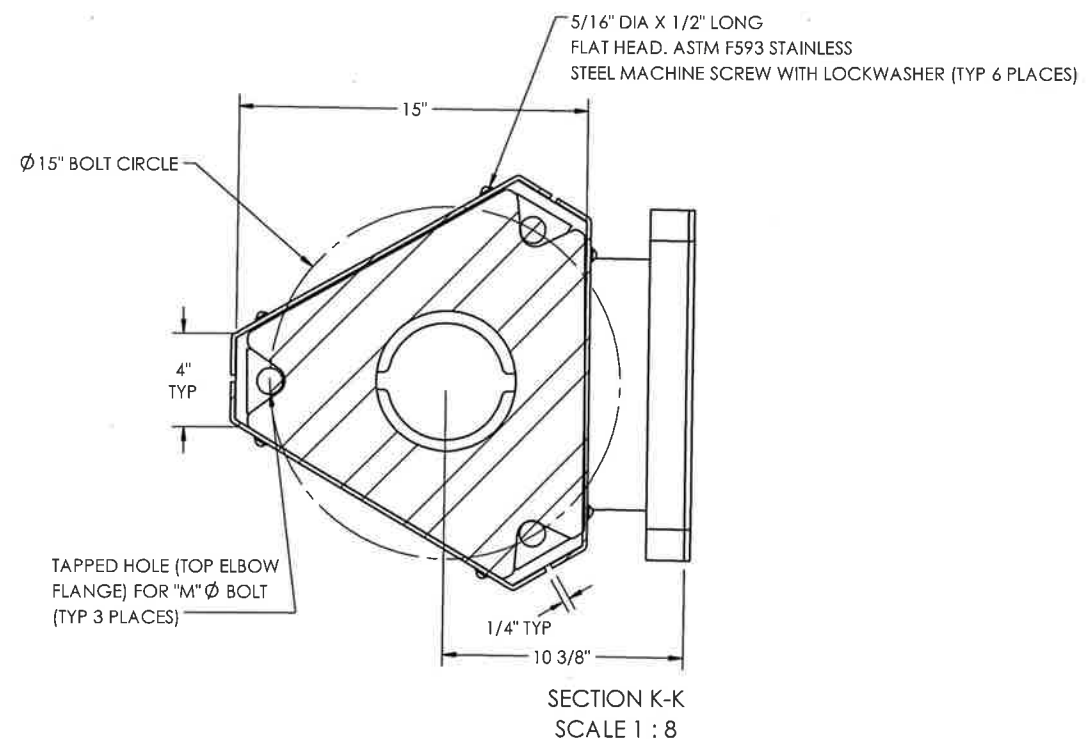
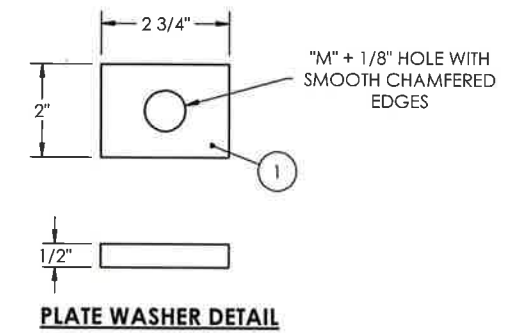
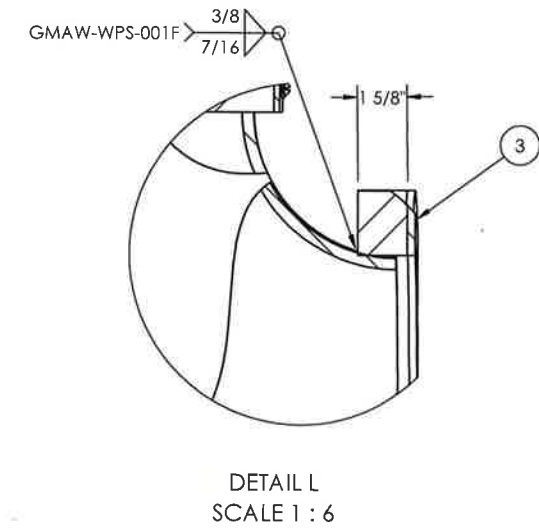
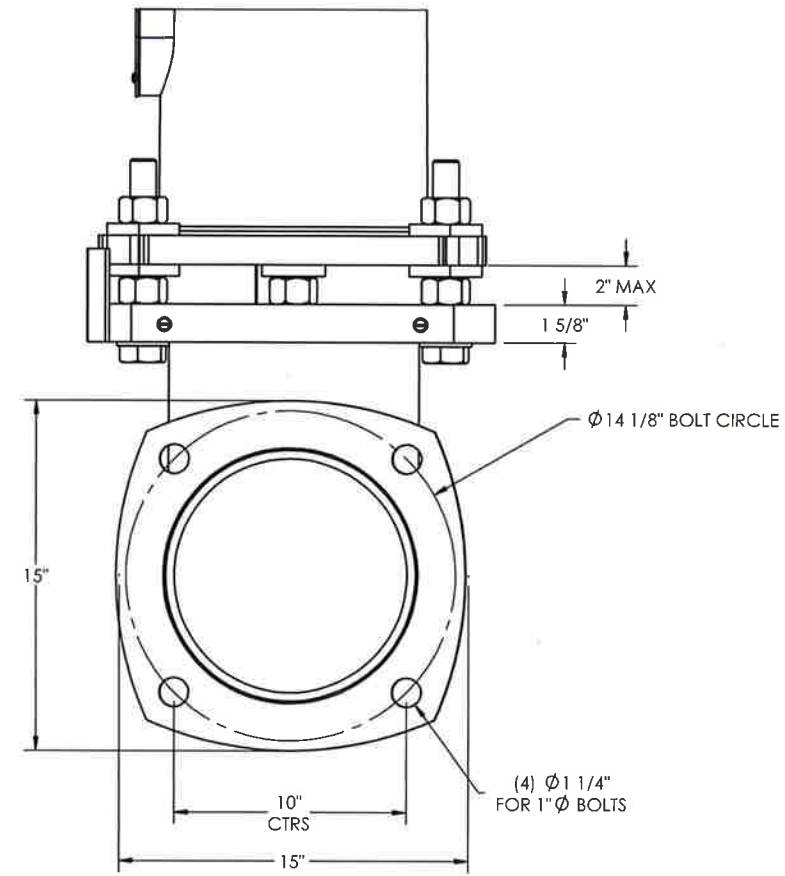
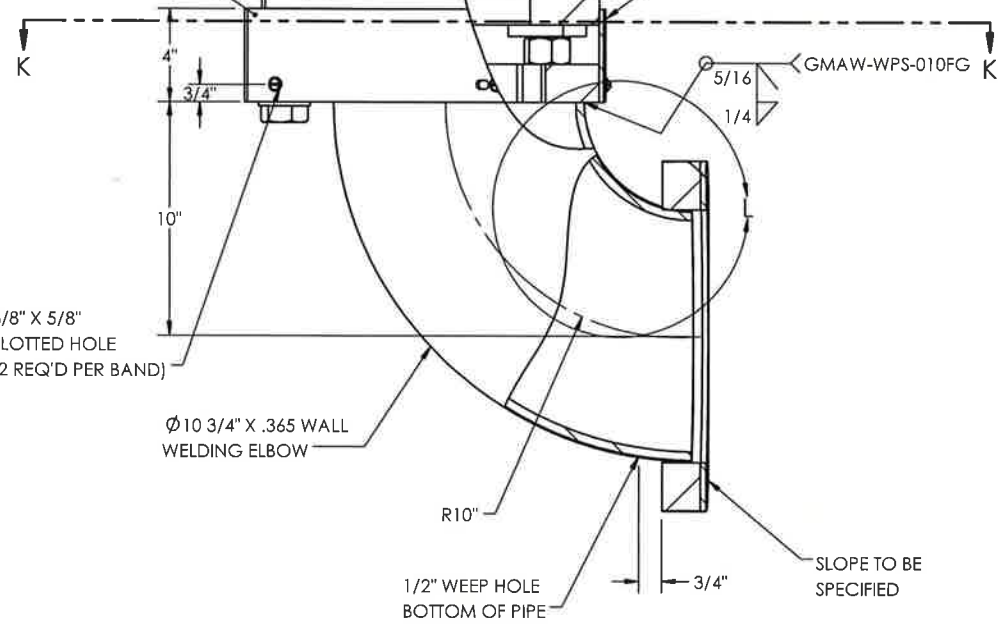
NOTE: FOR NOTE AT WELD SYMBOL TAIL, SEE WELDING PROCEDURE SPECIFICATION

REV.	DESCRIPTION	DATE	DRFT
J	UPDATED WPS ON SHT 2 - TYPO WAS GMAW-WPS0010FG	7/27/2020	RK
H	SH 2 - POST BASE WAS NOTED AS 3/4", FIXED BALLOONS ON SH 3	7/20/2020	RK
G	UPDATED WELD NOTE, UPDATED PER COMMENTS	6/12/2020	RK

"M" DIA X 8 1/2" LG BOLTS
(A449) GALVANIZED - FULLY
THREADED. EACH BOLT FURNISHED
WITH (2) HVY HEX NUTS, (2) PLATE WASHERS
AND (1) STANDARD ROUND WASHER

14 23 1 13

3/16" X 4"
STEEL BAND
TO FIT (3 REQ'D)

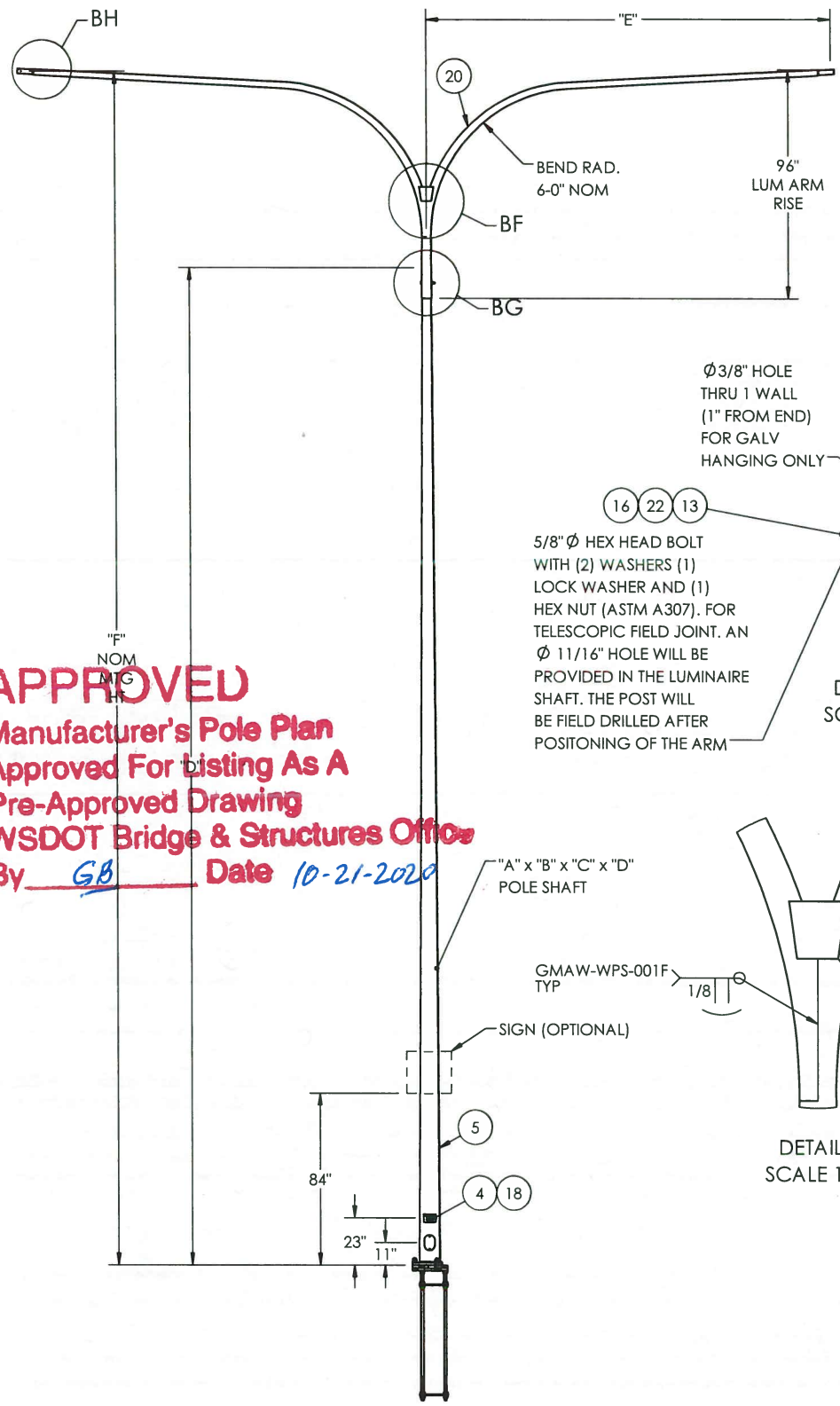


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Manufacturer's Pole Plan
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By GB Date 9-14-2020

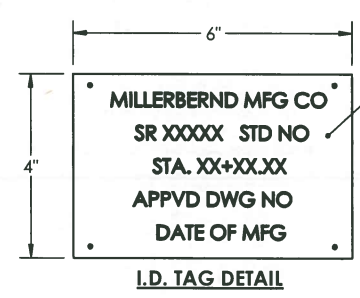
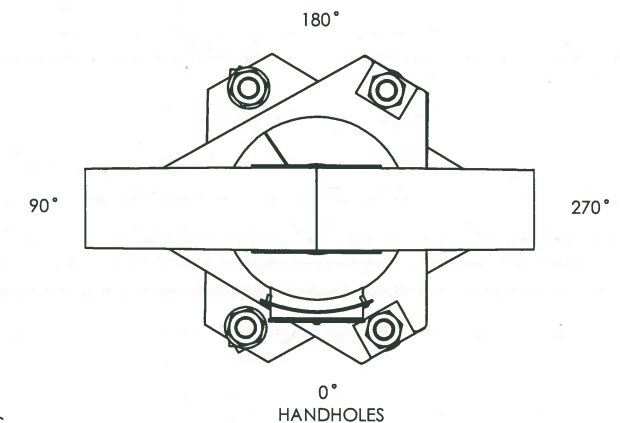
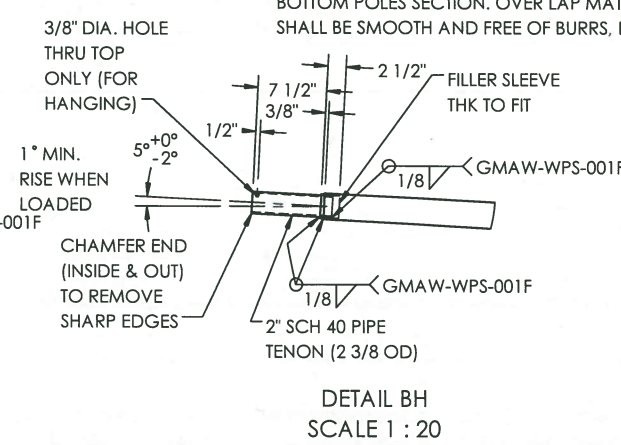
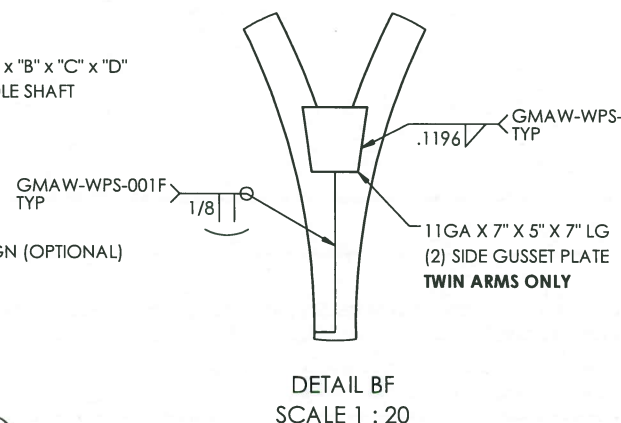
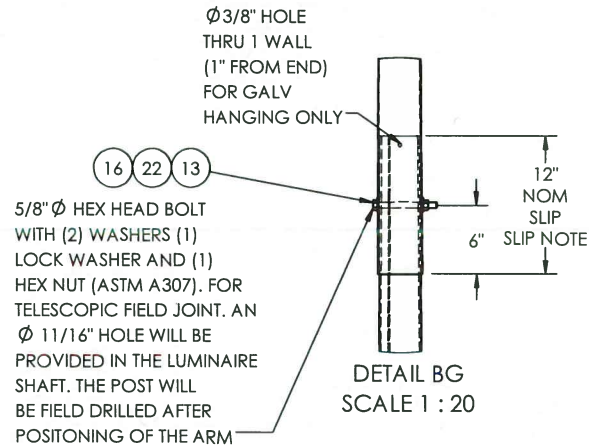


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SALES ORDER NO.:	QTY:	STATE:	SHEET
74515	-	WA	3 OF 3
DESCRIPTION: SUB POLE LIGHT RD TYPE 1 - ELBOW			
EST. WEIGHT:		DRAWING NO: 74515-WA-LP1-ELBOW	
PROJECT NAME: STATE OF WASHINGTON LIGHT POLES TYPE 1			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 2/20/17	
CHK BY:		DATE:	



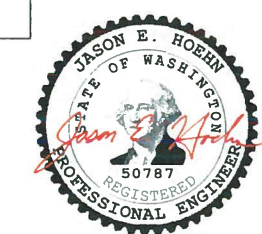
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 By GB Date 10-21-2020



REVISIONS			
REV.	DESCRIPTION	DATE	DRFT
H	UPDATED POLE SHAFT SIZES TO MATCH CALCS (30', 35' & 40' DESIGNS)	9/23/2020	RK
G	UPDATED WELD NOTE, UPDATED PER COMMENTS	6/12/2020	RK
F	UPDATED NOTES PER COMMENTS; UPDATED WPS TO MMC STANDARDS	5/12/2020	RK

POLE DATA - LIGHT POLE - TYPE 1 - SLIP BASE								
MMC #	QTY	POLE TUBE				ANCHOR/CONNECTING BOLT DIA "H"	LUMINAIRE ARM	
		THICK (IN) "A"	BASE O.D. (IN) "B"	TOP O.D. (IN) "C"	LENGTH (FT) "D"		"E" SPAN	"F" MTG HT
WA-LP1-SP-6S/6T-30							6'-0"	30'-0"
WA-LP1-SP-8S/8T-30							8'-0"	
WA-LP1-SP-10S-30			8.72	5.5	23'-0"	1"	10'-0"	
WA-LP1-SP-12S-30							12'-0"	
WA-LP1-SP-14S-30							14'-0"	
WA-LP1-SP-16S-30							16'-0"	35'-0"
WA-LP1-SP-6S/6T-35							6'-0"	
WA-LP1-SP-8S/8T-35							8'-0"	
WA-LP1-SP-10S-35		11GA	9.42	5.5	28'-0"	1"	10'-0"	
WA-LP1-SP-12S-35							12'-0"	
WA-LP1-SP-14S-35							14'-0"	40'-0"
WA-LP1-SP-16S-35							16'-0"	
WA-LP1-SP-6S/6T-40							6'-0"	
WA-LP1-SP-8S/8T-40							8'-0"	
WA-LP1-SP-10S-40							10'-0"	
WA-LP1-SP-12S-40			10.12	5.5	33'-0"	1"	12'-0"	50'-0"
WA-LP1-SP-14S-40							14'-0"	
WA-LP1-SP-16S-40							16'-0"	
WA-LP1-SP-6S/6T-50							6'-0"	
WA-LP1-SP-8S/8T-50							8'-0"	
WA-LP1-SP-10S-50		3/16	11.52	5.5	43'-0"	1 1/8"	10'-0"	50'-0"
WA-LP1-SP-12S-50							12'-0"	
WA-LP1-SP-14S-50							14'-0"	
WA-LP1-SP-16S-50							16'-0"	

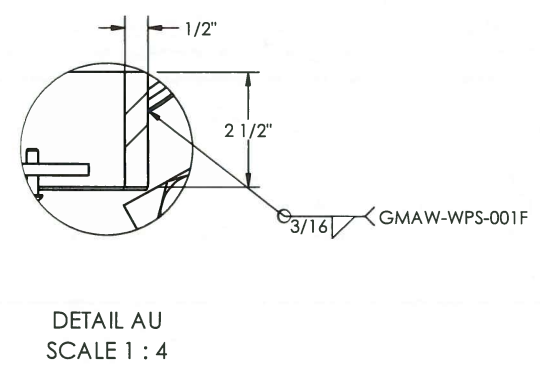
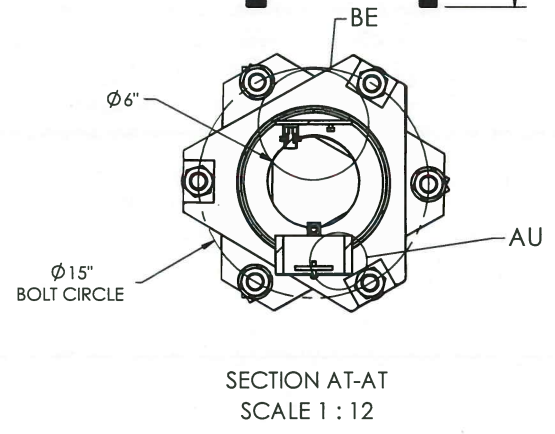
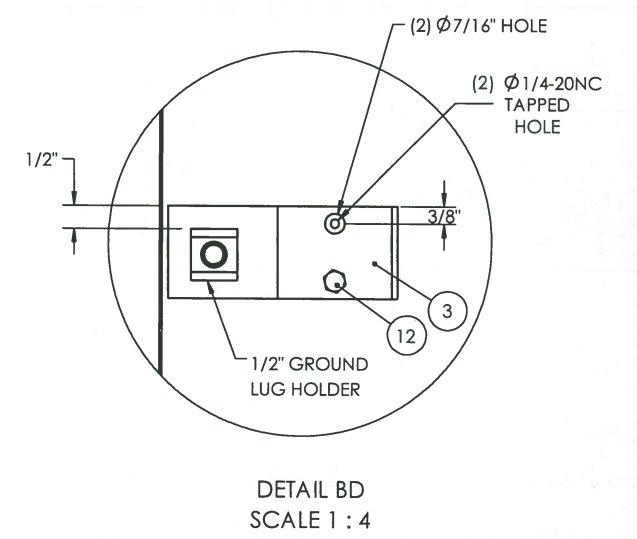
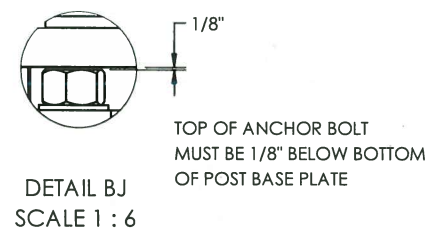
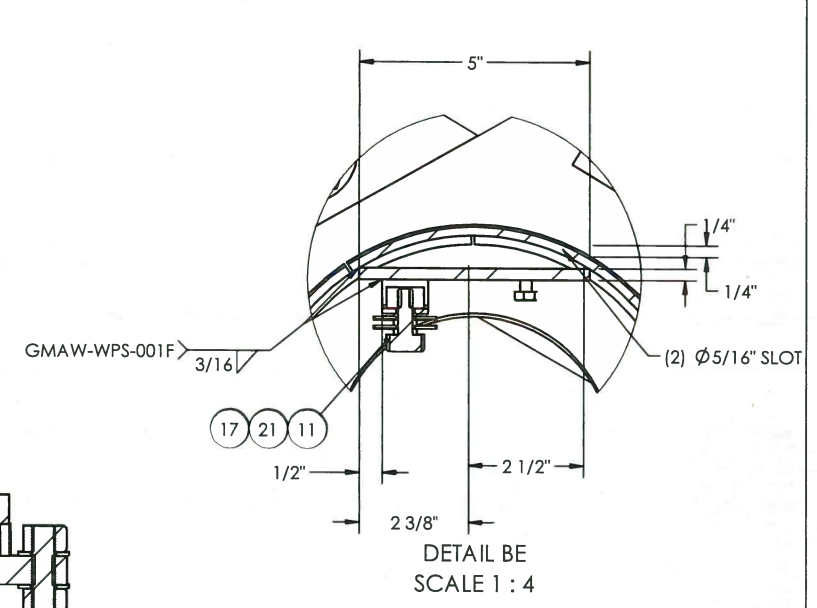
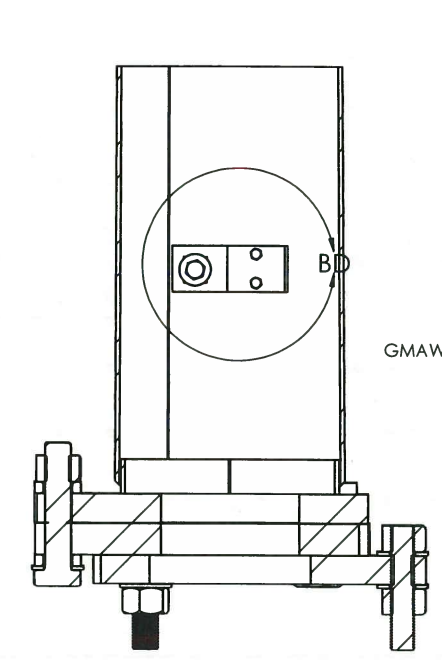
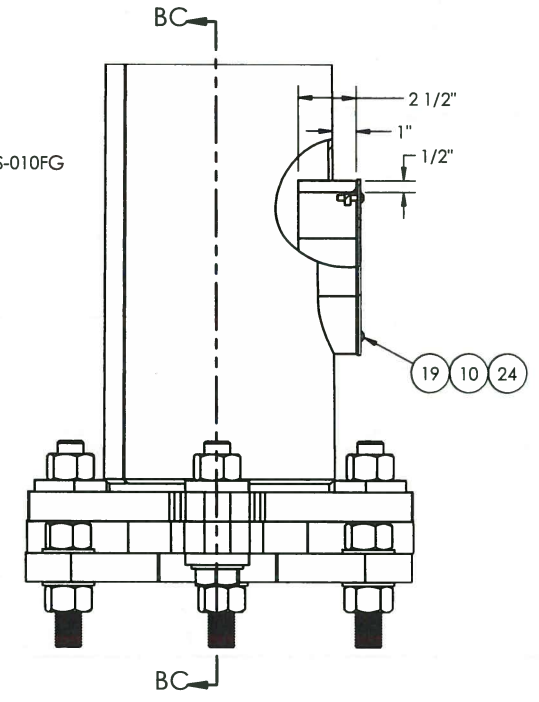
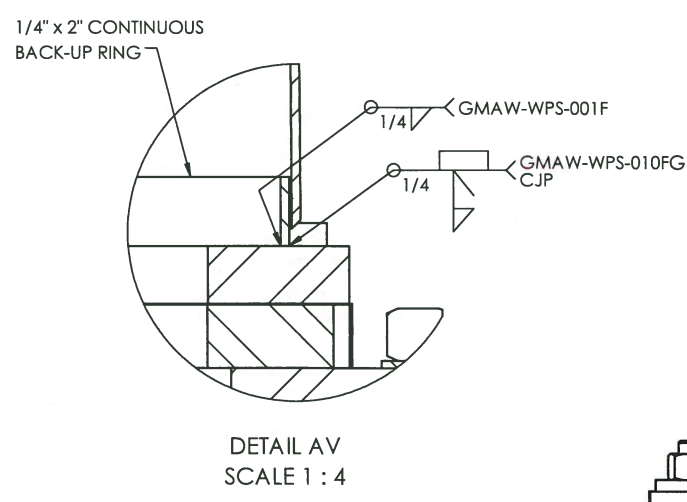
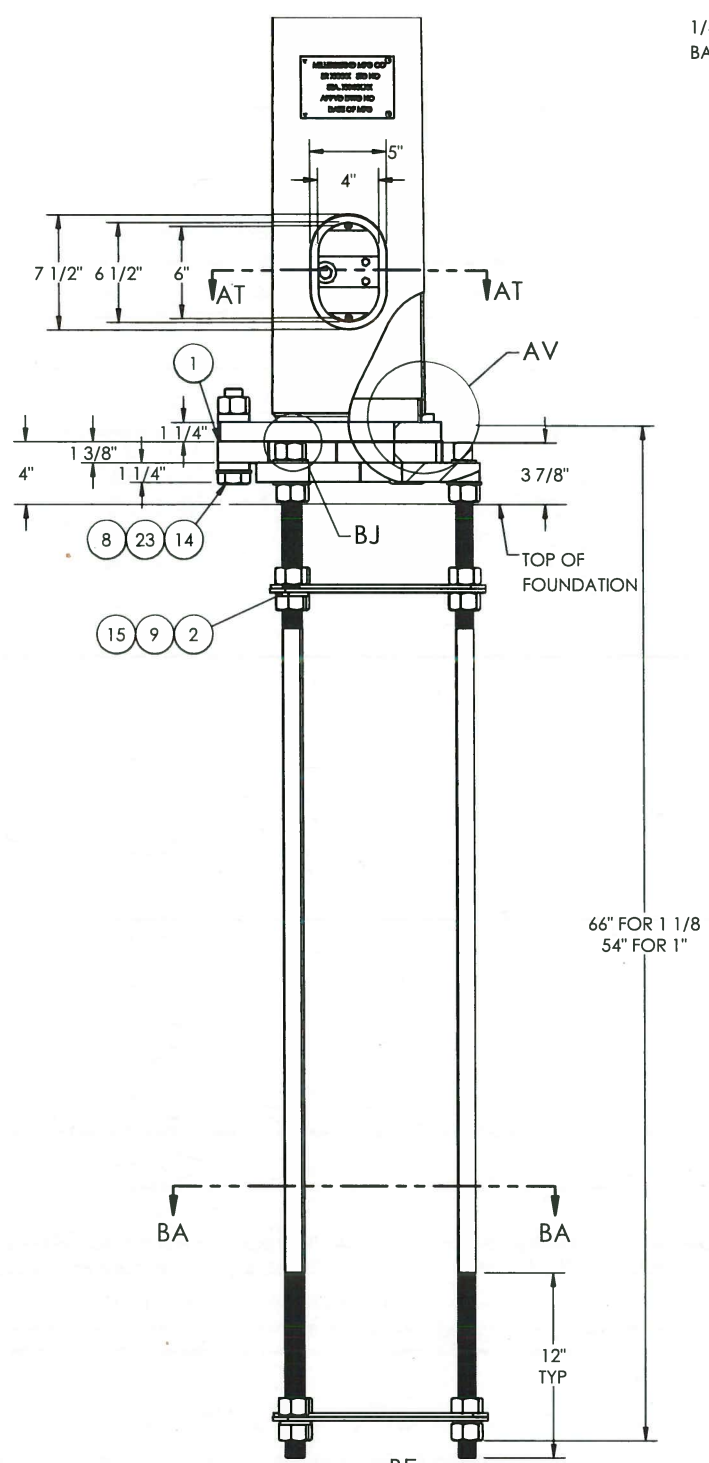
INSTALL ONLY LUMINAIRE POLES WITH SINGLE MASTARM 16' 0" OR LESS AND DOUBLE MAST ARM 8' OR LESS ON SLIP BASE POLES
 SLIP NOTE: THE TOP DAVIT ARM SECTION WILL SLIPFIT OVER BOTTOM POLES SECTION. OVER LAP MATING SURFACE SHALL BE SMOOTH AND FREE OF BURRS, DENTS AND LUMP OF ZINC.



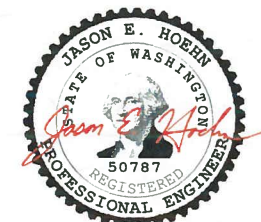
9-24-20 (EXPIRES 12-18-21)

ITEM NO.	DESCRIPTION	QTY PER	ASSY	FINISH
1	KEEPER PLATE TRI ASTM A GR 33, G90 COATING	1		X
2	TEMPLATE 2X1/4X15	6		X
3	GROUND MTG PLATE	1		X
4	I.D. TAG - WA	1	X	
5	WLDMT POLE LIGHT "A" x "B" x "C" x "D"	1		X
6	ANCHOR PLATE	1		X
7	SLIP PLATE	1		X
8	WASHER PLATE	6		X
9	ANCHOR BOLT "H" X 60" W/4 NUTS 3 FLAT & 1 LOCK WASHER	3		
10	COVER HH M16C 4 1/4X6 3/4 2 BOLT	1		X
11	BOLT HX HD 1-2-13NC X 1" F593C SS	1	X	
12	BOLT HX HD 1/4-20NC X 1/2 F593C SS	2		
13	BOLT HX HD 5-8-11NC X 6-1-2 ASTM A307	1		
14	BOLT HVYHXHD "H" 5 1/2 F3125 A325GV TYPE 1 GV	3		
15	NUT HVY HX "H" A563 DH GV	3		
16	NUT HX 5-8-11NC ASTM A563 GR DH	1		
17	NUT SQ 1-2-13 SS	1		
18	RIVET POP 3/16X1/2X3/8 HD SS	4	X	
19	SCRW HX SK BT HD 1-4-20NC X 1 SS	2		
20	WLDMT ARM TWIN (SINGLE NOT SHOWN)	1		X
21	WASH F.56 IDX1.375ODX.091 THK BRASS COMM. BRASS	2	X	
22	WASHER FLAT 5/8 ASTM F436	2		
23	WASHER WIDE FLAT 1 1/8 X 2 1/4" OD GV	3		
24	GASKET HH M16	1	X	

MATERIAL SPECIFICATIONS			
POST: ASTM A572 GR55 BASE PLATE: ASTM A709 GR 50 MAST ARM: N/A MOUNTING PLATE: N/A HARDWARE FINISH: ASTM F2329 CONNECTION BOLTS: ASTM A449 OR F1554 GR 105 CONNECTION NUTS: CONNECTION WASHERS: ANCHOR BOLTS: ASTM F1554 GR105 ANCHOR BOLT NUTS: ASTM A563 GR DH ANCHOR BOLT WASHER: ASTM F436 PIPE: ASTM A53 GR B OR ASTM A500 GR B KEEPER PLATE (COATING G90) ASTM A653 GR 33			
DESIGN CRITERIA			
2015 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS ON HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS INCLUDING LATEST INTERIMS. WINDS: 115 MPH WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS VORTEX SHED: N/A FATIGUE CAT: N/A NATURAL WIND GUST: N/A LUMINAIRE: 3.3 SQ FT EPA LUMINAIRE WEIGHT: 50 LBS SIGN: 20 SQ FT @ 7' FROM BASE SIGN WEIGHT: 65 LBS			
WELD SPECIFICATION			
THE POST AND MAST ARM TO BE ROUND TAPERED TUBE FABRICATION WITH ONE SUBMERGED ARC LONGITUDINAL SEAM WELD WITH 100% PENETRATION 6" FROM BASE PLATE, FLANGE AND BUTT WELDED SHAFTS. EXCEPT FOR TUBES LESS THAN 5 IN DIAMETERS; FOR FEMALE SECTION OF SLIP JOINTED TUBES 10" AND GREATER; 1.5 X FEMALE SECTION INSIDE DIAMETER + 6 INCHES. FOR FEMALE SECTION OF SLIP JOINTED TUBES LESS THAN 10" FEMALE SECTION NOMINAL DIAMETER AND 60% FOR REMAINDER. GAS METAL ARC WELDING PROCESS WITH 60% PENETRATION MAY BE USED FOR REMAINDER OF WELDED FABRICATION.			
WELD TESTING: 100% OF ALL WELDS VISUAL TESTED (VT), 100% OF ALL COMPLETE JOINT PENETRATION (CJP) WELDS ULTRASONIC TESTED (UT) BASED ON THE THINNEST MATING MATERIAL: (PER AASHTO 2013 5.15.5-WELD INSP) THICKNESS. < 6MM (0.25 IN) MT > 6MM (0.25 IN) UT A RANDOM 30% OF ALL FILLET WELDS AND PARTIAL JOINT PENETRATION (PJP) LONGITUDINAL SEAM WELDS MAGNETIC PARTICLE TESTED (MT).			
WELDING INSPECTION OF STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF TRANSPORTATIONS STANDARD SPECIFICATION SECTION 6-03.3(25) AND 2015 AASHTO WELD INSPECTION SECTION 14.4.4.8			
STRUCTURE FINISH SPECIFICATION			
GALV. OR PRIME COAT: HOT DIPPED GALV. PER ASTM A123 FINISH COAT: - COLOR: - FEDERAL OR RAL SPEC.: - WEIGHT W/GALV.: - WEIGHT W/GALV. & PAINT: - SURFACE AREA: - GAL. OF PAINT: -			
		622 6TH ST. SO. WINSTED, MN 55395	
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74515	-	WA	1 OF 3
DESCRIPTION: SUB POLE LIGHT RD TYPE 1 - SLIP BASE			
EST. WEIGHT:		DRAWING NO:	
		74515-WA-LP1-SB	
PROJECT NAME: STATE OF WASHINGTON LIGHT POLES			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 2/20/17	
CHK BY:		DATE:	

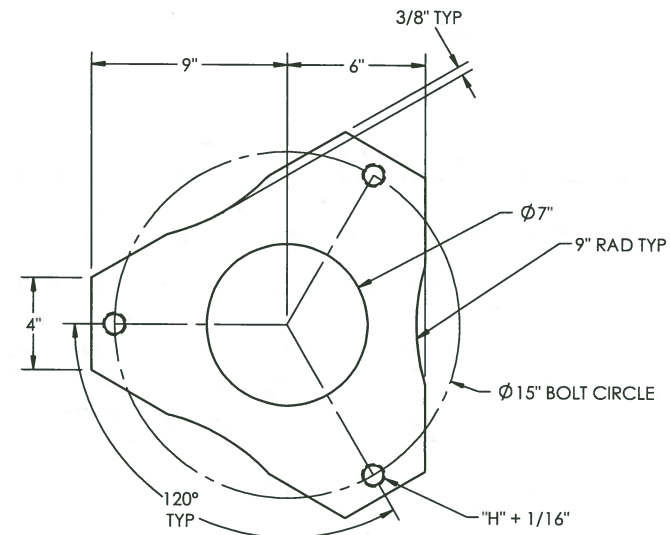
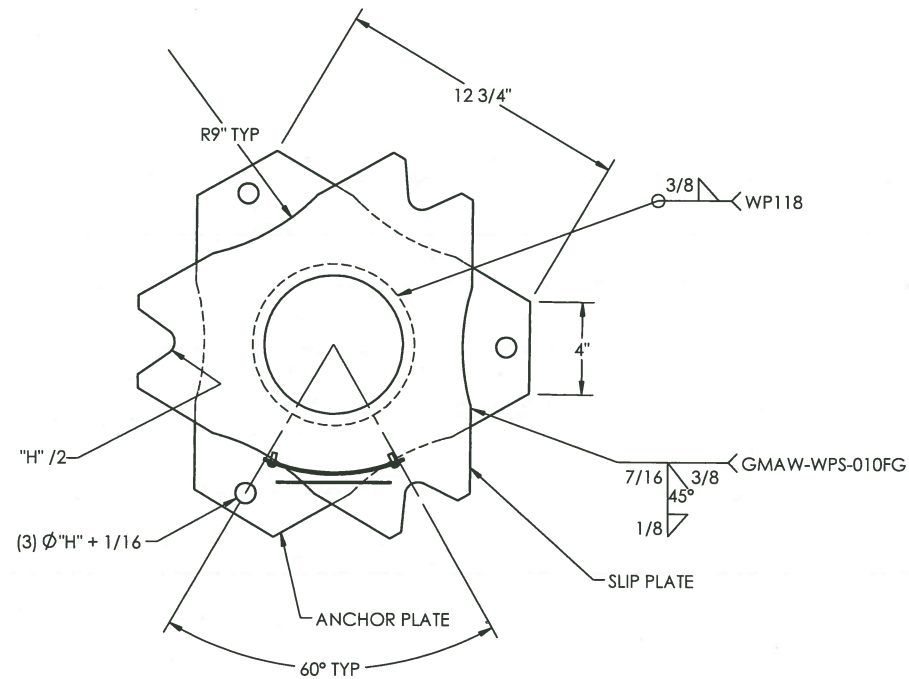


APPROVED
 Manufacturer's Pole Plan
 Approved For Listing As A
 Pre-Approved Drawing
 WSDOT Bridge & Structures Office
 By GB Date 10-21-2020

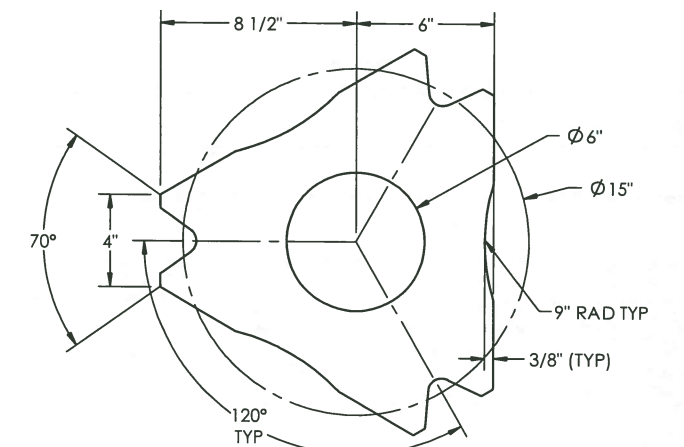


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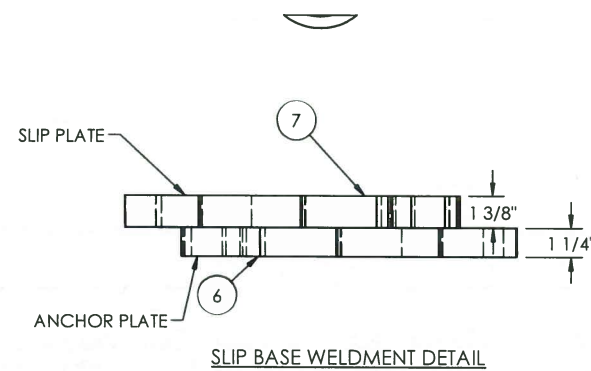
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SALES ORDER NO.:	QTY:	STATE:	SHEET
74515	-	WA	2 OF 3
DESCRIPTION: SUB POLE LIGHT RD TYPE 1 - SLIP BASE			
EST. WEIGHT:		DRAWING NO:	
		74515-WA-LP1-SB	
PROJECT NAME: STATE OF WASHINGTON LIGHT POLES			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 2/20/17	
CHK BY:		DATE:	



ANCHOR PLATE DETAIL

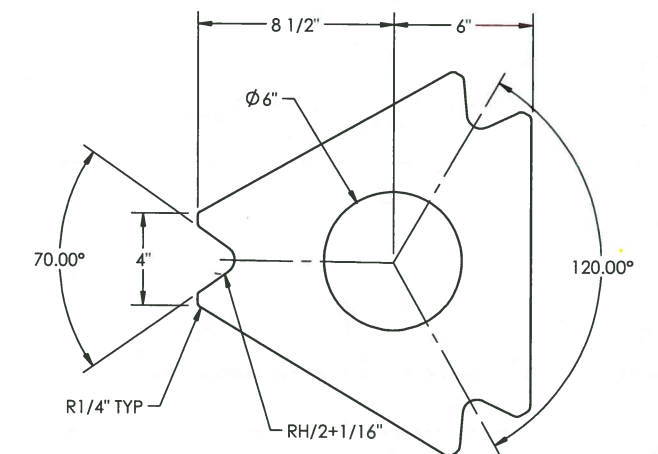


SLIP PLATE DETAIL



SLIP BASE WELDMENT DETAIL

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 WSDOT Bridge & Structures Office
 By GB Date 10-21-2020



POLE BASE PLATE DETAIL

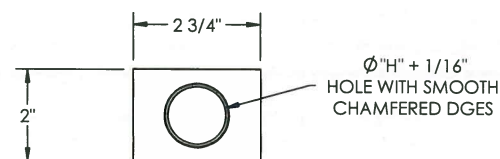
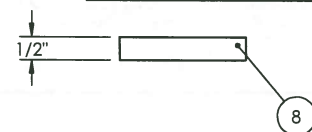


PLATE WASHER DETAIL



KEEPER PLATE DETAIL

PLACE BETWEEN POLE BASE
 PLATE AND BOTTOM SLIP BASE
 ON TOP OF MIDDLE WASHERS
 ASTM A653 GR 33, G90 COATING



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SALES ORDER NO.:	QTY:	STATE:	SHEET
74515	-	WA	3 OF 3
DESCRIPTION: SUB POLE LIGHT RD TYPE 1 - SLIP BASE			
EST. WEIGHT:		DRAWING NO:	
		74515-WA-LP1-SB	
PROJECT NAME: STATE OF WASHINGTON LIGHT POLES			
PROJECT LOCATION: WA			
DWN BY: REBEKAH		DATE: 2/20/17	
CHK BY:		DATE:	