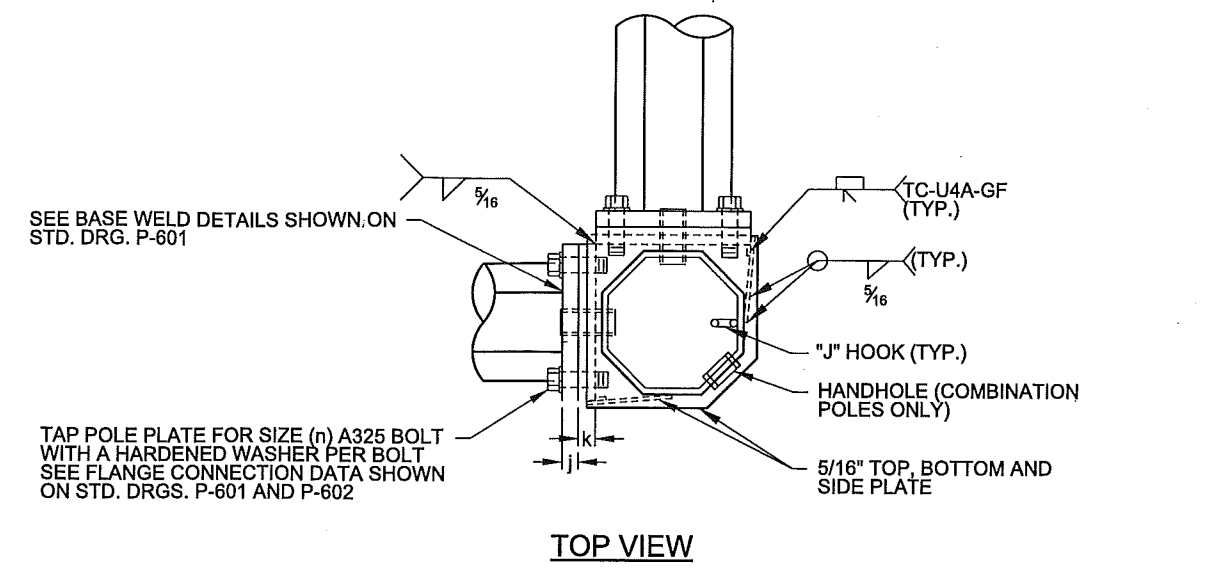
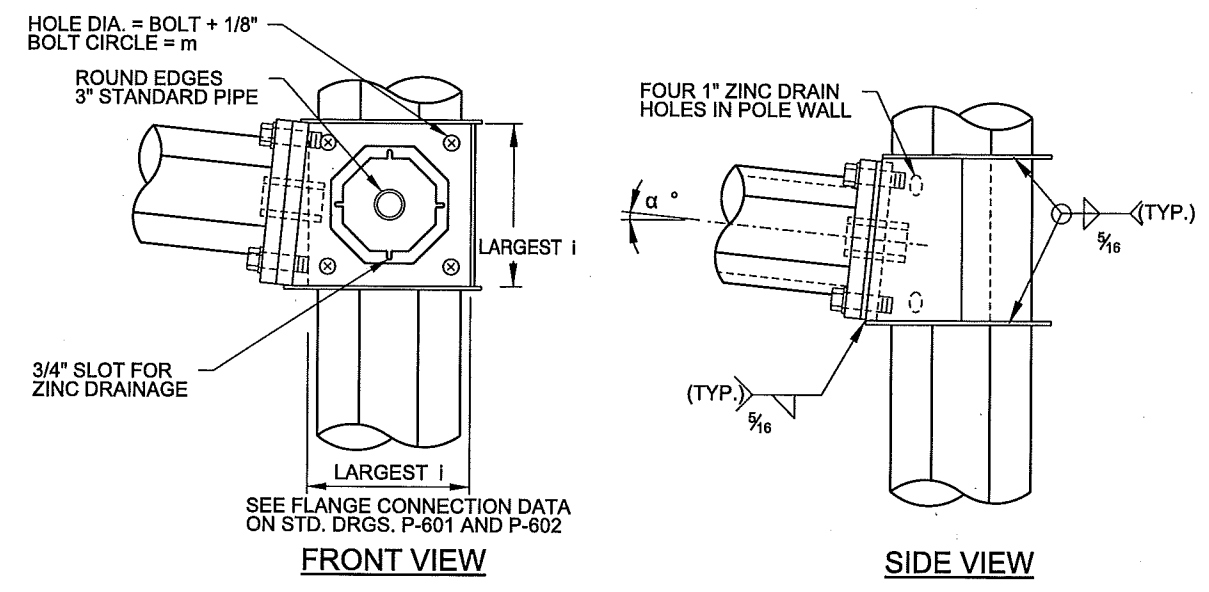


DUAL MAST ARM POLE



TOP VIEW



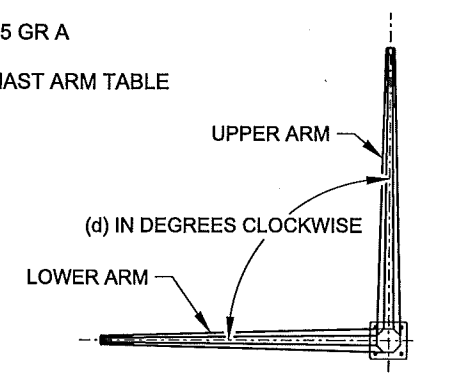
FRONT VIEW

SIDE VIEW

**FLANGE PLATE DETAIL, DUAL ARMS
(FOR EQUAL RISER HEIGHT INSTALLATIONS)**

NOT TO SCALE

- NOTES :**
- FABRICATION SHALL CONFORM TO AASHTO'S 2001 "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 4TH EDITION WITH 2002, 2003, AND 2006 INTERIM REVISIONS, 100 MPH, 3.0 SEC GUST, GUST FACTOR = 1.14, IR = 1.0 I.E. 50 YEAR RECUR. INT. FATIGUE CATEGORY 2, NO GALLOPING, TRUCK SPEED = 55 MPH.
 - POLES AND ARMS SHALL BE OCTAGONAL OR ROUND IN CROSS-SECTION AND HAVE A TAPER OF 0.14 INCHES PER FOOT.
 - POLE END CAP SHALL BE RAIN TIGHT AND MATCH THE SHAPE OF THE POLE WITH AN INCH OF OVERLAP ON ALL SIDES.
 - STEEL USED IN BASE PLATES, FLANGE PLATES & GUSSET PLATE SHALL CONFORM TO ASTM A572 GR 50. SILICON CONTENT OF THE BASE METAL SHALL BE 0.0% TO 0.04% OR 0.15% TO 0.25%.
 - ANCHOR BOLTS : ASTM F1554 GR 55, NUTS : ASTM A563 GR DH HEAVY HEX.
 - HEX CONNECTION BOLTS : ASTM A325. (1.25-1.50 INCH DIAMETER)
ASTM A354BC. (1.75 INCH DIAMETER)
 - ANCHOR BOLT AND CONNECTION WASHERS: ASTM F436 TYPE 1.
 - PIPE TENONS AND WIRE GUIDES : ASTM A53 GR B.
 - HANDHOLE COVERS : ASTM A1011 GR 50.
 - GALVANIZING : ASTM A123 & A153.
 - STRAIGHT SECTION (h) SHALL BE A MINIMUM 1 DEGREE ABOVE HORIZONTAL WHEN FULLY LOADED AND A MAXIMUM OF 4 DEGREES ABOVE HORIZONTAL WHEN UNLOADED.
 - STEEL IN TUBES SHALL CONFORM TO A572 GR 50 OR A595 GR A
 - REFER TO STANDARD DRAWINGS P-601 AND P-602 FOR MAST ARM TABLE OF VARIABLES.
 - WELD DETAILS ON STANDARD DRAWING P-601.



**METHOD OF DETERMINING
LOWER ARM ANGLE**

POLE TYPE	MAST ARM RANGE (FT)	BASE PLATE TYPE	MINIMUM SEPARATION FOR UNEQUAL RISER HEIGHTS
DMA-30/25	30/25 *	201 A	18 INCHES
DMA-45/35	45/35 **	201 A	20 INCHES
DMA-55/45	55/45 ***	201 B	22 INCHES

* ALLOWS ONE ARM UP TO 30' & ONE ARM UP TO 25'.
 ** ALLOWS ONE ARM UP TO 45' & ONE ARM UP TO 35'.
 *** ALLOWS ONE ARM UP TO 55' & ONE ARM UP TO 45'.

<p>The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user.</p> <p>Note: All material and workmanship shall be in accordance with the City of Portland Standard Construction Specifications.</p>	<p>PORTLAND BUREAU OF TRANSPORTATION</p> <p>PBOT</p> <p><i>She Tom</i> Chief Engineer</p>	
	<p>Standard Drawing Title</p> <p>DUAL MAST ARM POLE DETAILS</p>	
	<p>Effective Date: 08-17-2016</p> <p>Calc. Book No.:</p> <p>Baseline Report Date:</p>	<p>Standard Drawing No.</p> <p>P-603</p>