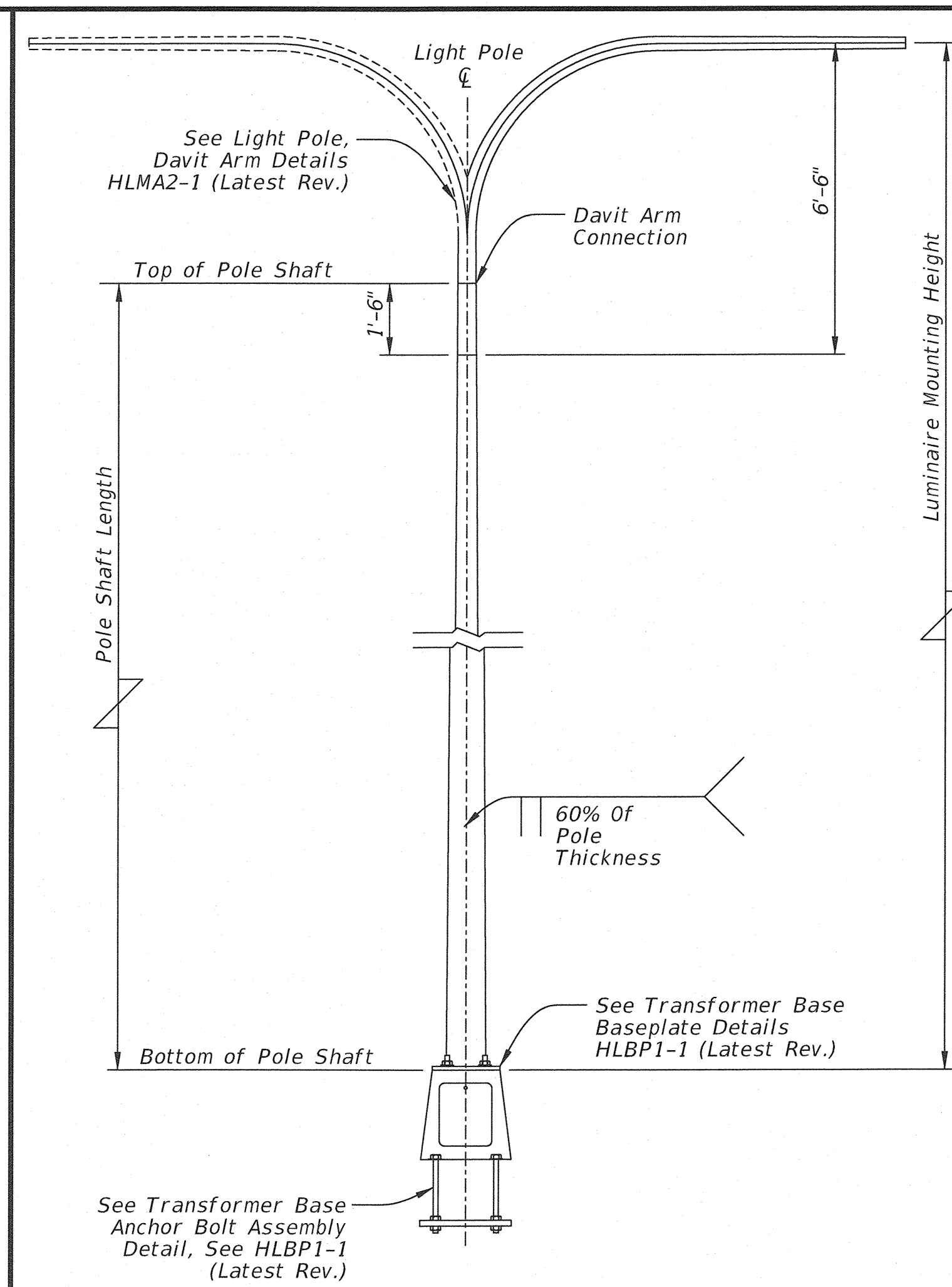
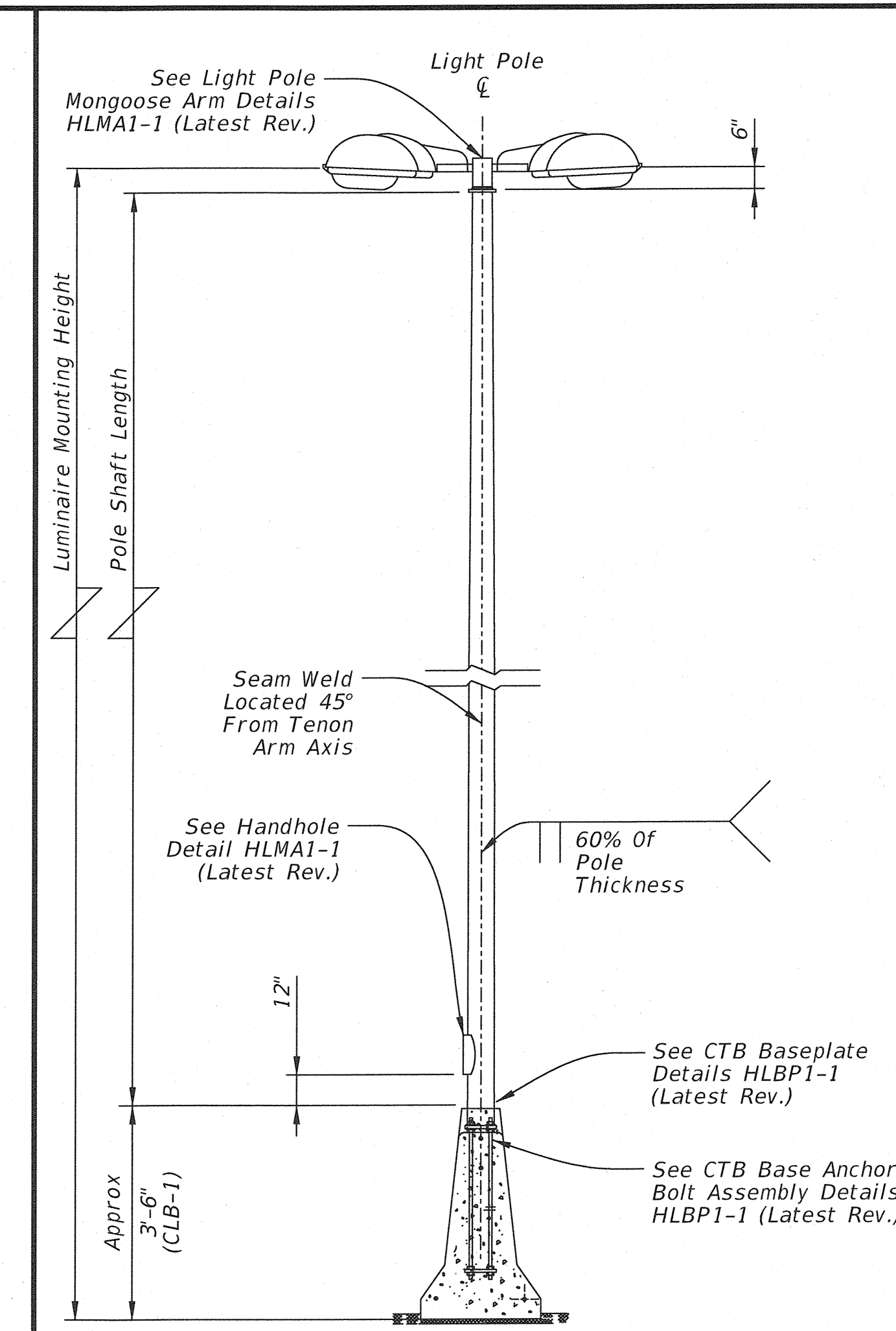


Shoe Base Pole



Transformer Base Pole



Concrete Traffic Barrier Base Pole

Material Data		
Component	ASTM Designation	Min. Yield (Ksi)
Pole Shaft (0.14"/ft. Taper)	A572 GR. 50, A595 GR. A, A1011 HSLAS GR. 50 CL 2, ③ or A1008 HSLAS GR 50 CL 2	50
Base Plate and Handhole Frame	A572 GR. 50	50
Davit Arm Connecting Bolts and Nuts	A307	36
T-Base Connecting Bolts	A325 ①	92
Anchor Bolts	F1554 GR 55	55
Anchor Bolt Templates	A36	36
Heavy Hex (H.H.) Nuts	A563 GR A	
Flat Washers	F436	

- ① Lubricate in the field if necessary in lieu of the requirements in ASTM A325.
- ② Before ovalized as shown on concrete Traffic Barrier Base Baseplate Details, Sheet BBD1-15.
- ③ A1011 SS GR 50 may be used in lieu of HSLAS, provided the material meets the elongation requirements For HSLAS

Materials Table

Shoe Base Pole Design Data					
Nominal Luminaire Mounting Height (FT)	Base Diameter (IN)	Top Diameter (IN)	Pole Shaft Length (FT)	Pole Thickness (IN)	Design Moment (K-FT)
20.00	6.40	4.30	15.00	0.179	9.62
30.00	7.80	4.30	25.00	0.179	14.33
35.00	8.50	4.30	30.00	0.179	16.80
40.00	9.20	4.30	35.00	0.179	19.34

Transformer Base Pole Design Data					
Nominal Luminaire Mounting Height (FT)	Base Diameter (IN)	Top Diameter (IN)	Pole Shaft Length (FT)	Pole Thickness (IN)	Design Moment (K-FT)
20.00	6.40	4.30	15.00	0.179	9.62
30.00	7.80	4.30	25.00	0.179	14.33
35.00	8.50	4.30	30.00	0.179	16.80
40.00	9.20	4.30	35.00	0.179	19.34

Concrete Median Barrier Base Pole (CLB-1) Design Data (Tenon Mounted)						
Nominal Luminaire Mounting Height (FT)	Base Diameter (IN)	Top Diameter (IN)	Pole Shaft Length (FT)	Pole Thickness (IN)	Design Moment (K-FT)	
					About C of Rail	Perp. to Rail
30.00	9.00	5.36	26.0	0.179	10.64	13.23
40.00	9.00	3.96	36.0	0.179	15.80	19.66

Concrete Median Barrier Base Pole (CLB-1) Design Data (Davit Arm)						
Nominal Luminaire Mounting Height (FT)	Base Diameter (IN)	Top Diameter (IN)	Pole Shaft Length (FT)	Pole Thickness (IN)	Design Moment (K-FT)	
					About C of Rail	Perp. to Rail
30.00	7.40	4.30	21.5	0.179	10.05	12.50
40.00	8.70	4.30	31.5	0.179	13.50	16.79

- General Notes:
1. Designs conform to 2013 AASHTO Standard Specifications For Structural Supports For Highway Signs, Luminaires, and Traffic Signals and Interim Specifications. Design for 3-second wind gust speed equal to 90 MPH with a 1.14 gust factor. A wind importance factor of 1.00 is applied to adjust the wind speed to a 50 year recurrence interval. Design moments listed in tables assume base of pole is less than 25' above natural ground level.
  2. All poles and attachment options shown structurally designed to support up to two 12' luminaire mast arms with luminaire fixture. Design mast arms for a 50-LB luminaire fixture having an effective projected area of 2.0 square feet.
  3. Fabrication shall be in accordance with the specifications and with the details, dimensions, and weld procedures shown herein. Submission of shop drawings for standard designs are required for project records but does not require ODOT approval. Weld references call for preapproved weld procedures which the fabricator must obtain prior to fabrication. Materials, fabrication tolerances, and shipping practices shall meet the requirements of these sheets and the specifications. In the absence of specified fabrication tolerances, dimensions shall be within the tolerances generally obtainable in normal fabrication practice.

- General Notes (Cont.)
4. For luminaire mast arm mounting heights between values shown in the tables, use base diameter and thickness values for the larger pole. For all Davit arm pole data refer to Sheet HLMA2-1 (Latest Revision).
  5. Unless otherwise noted, all steel parts shall be galvanized in accordance with Section 724.06, "Galvanizing."
  6. Steel poles shall be fabricated in accordance with Section 724, "Structural Steel." Longitudinal seam welds for pole sections shall have 60% minimum penetration. All welding shall be in accordance with the ANSI/AWS Structural Welding Code D1.1.
  7. Two-section poles joined by circumferential welds will not be permitted, unless otherwise shown on the plans. Poles may be fabricated in two sections and field-assembled by the lap-joint method. The two sections shall telescope together with a lap length of not less than 1-1/2 times the shaft diameter at the lap joint.
  8. Alternate material equal to or better than material specified may be substituted with the approval of the Engineer.
  9. Lubricate and tighten anchor bolts, when erecting shoe base poles and concrete traffic barrier base poles, in accordance with manufacturer's recommendations.

- General Notes (Cont.)
10. All poles, except transformer base poles, shall have hand holes with reinforcing frames and covers. Except for poles mounted on a concrete traffic barrier, hand holes shall be placed 90 degrees to mast arm and opposite the direction of traffic flow unless otherwise noted on the plans. For poles mounted on a concrete traffic barrier with one luminaire arm, hand holes shall be located 180 degrees from luminaire arm. For poles mounted on a concrete traffic barrier with two luminaire arms, all hand holes shall be on the same side of the barrier.
  11. The finished pole shall have a smooth, uniform finish free of pits, blisters, or other defects. Scratched, chipped, and other damaged galvanized areas on poles and mast arms shall be repaired in accordance with Section 724.06, "Galvanizing."

Pole Assembly Fabrication Tolerances Table	
Dimension	Tolerance
Shaft Length	+1"
I.D. of Outside Piece of Slip Fitting Pieces	+1/8", -1/16"
O.D. of Inside Piece of Slip Fitting Pieces	+1/32", -1/8"
Shaft Diameter: Other	+3/16"
Out of "Round"	1/4"
Straightness of Shaft	± 1/4" in 10 Ft
Twist in Shaft	4° in 50 Ft
Perpendicular to Baseplate	1/8" in 24"
Pole Centered on Baseplate	± 1/4"
Location of Attachments	± 1/4"
Bolt Hole Spacing	± 1/16"

Tolerances Table

Approved By Bridge Engineer: *St. J.* Date: 3-24-16

Approved By Traffic Engineer: *Held J.* Date: 3/14/2016

Traffic Standard Typical Highway Light Pole Details

Shoe Base Pole Table and General Notes

Transformer Base Pole Table and General Notes

Concrete Traffic Barrier Base Pole Table and General Notes