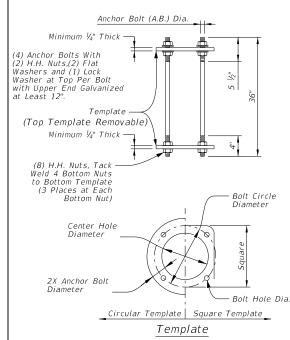


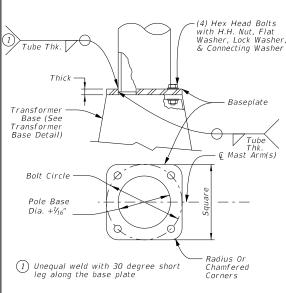
Shoe Base Baseplate Table					
Mounting Heights	Bolt Circle Square Thick Bolt Hole Diameter				
Up to 40'	15"	15"	1 1/4"	1 %16"	

## Shoe Base Baseplate Details



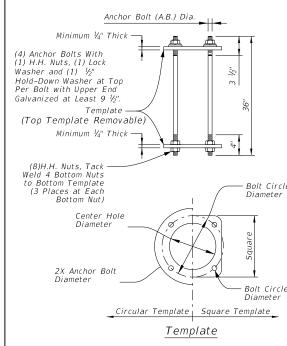
Shoe Base Anchor Bolt Assembly Table					
Mounting Heights	A.B. Dia.	Bolt Circle Diameter	Square	Ctr. Hole Diameter	Bolt Hole Diameter
Up to 40'	1 1/4"	15"	15"	12 ½	1 5/16

Shoe Base
Anchor Bolt Assembly Details



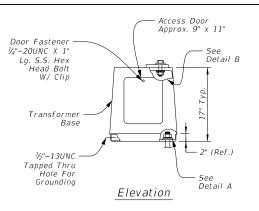
Transformer Base Baseplate Table						
Mounting Heights	Bolt Circle	Square	Thick	Connecting Bolt Dia.	Bolt Hole Diameter	Transformer Base Type
Up to 40'	15"	15"	1 1/4"	1 1/4"	1 %16"	А

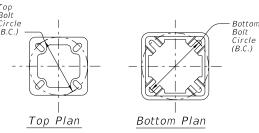
## Transformer Base Baseplate Details

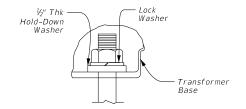


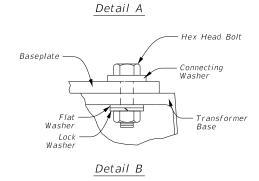
Transformer Base Anchor Bolt Assembly Table					
Mounting Heights	A.B. Dia.	Bolt Circle Diameter	Square	Ctr. Hole Diameter	Bolt Hole Diameter
Up to 40'	1 1/4"	16 ½"	16 ½"	14"	1 5/16

Transformer Base Anchor Bolt Assembly Details





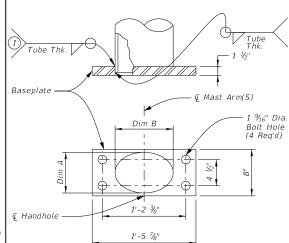




Transformer Base Table					
Base Type	Тор	B.C.	Bottom B.C.		
	Min.	Max.	Min.	Max.	
А	13"	15"	15"	17"	

Transformer Base Bolt Circle Table

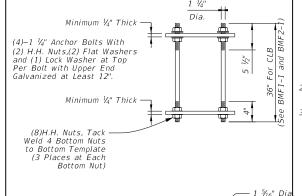
Transformer Base Details

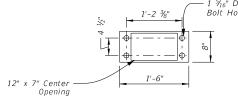


1) Unequal weld with 30 degree short leg along the base plate

Concrete Traffic Barrier Base Baseplate Table					
Mounting Heights					
30'- 40'	Up to 9"	7"± 1/4"	10"± 1/4"		

## Concrete Traffic Barrier Baseplate Details





<u>Template</u> (Top Template Removable)

Concrete Traffic Barrier Base Anchor Bolt Assembly Details

#### General Notes:

- REVISIONS
  DESCRIPTION
  Various
  09/05/2018
- 1. For mounting heights between those shown in the table, use the values in the table for the larger mounting height.
- 2. All breakaway bases shall meet the breakaway requirements of the 2013 Edition of the AASHTO "Standard Specifications For Structural Supports For Highway Signs, Luminaires and Traffic Signals," and shall have been tested by FHWA-approved methods. All bases shall have been structurally tested to resist 150% of the design moment.
- 3. Transformer bases shall be cast from aluminum, ASTM B108 or B26 alloy 356.0-T6, or other material approved by the Engineer. Four hex head bolts with four H.H. nuts, four lock washers, four flat washers, and connecting and hold-down washers as recommended by the manufacturer, galvanized to ASTM A153 Class C or D, or B695 Class 50, shall be provided with each transformer base for connecting the pole. Bolts shall be ASTM A325 or approved equal. Nuts shall be ASTM A563 Grade DH galvanized.
- 4. Bases shall be stamped, incised or by other approved permanent means, marked to show fabricator's name or logo, and model number. Such information shall be placed in a readily seen location, inside or outside the base, but shall not be placed on the door.
- 5. Doors for transformer bases shall be made of plastic, fiberglass or other non-metallic material approved by the Engineer and shall be attached with stainless steel screws or bolts. Transformer bases shall be cleaned by grit blast cleaning after heat treatment. Certification by the manufacturer of heat treatment shall be furnished with transformer bases. The certification shall show the metal alloy and temper and that the base meets those requirements, chemical and physical. The certification shall also show the material ASTM specification. Transformer bases shall be cast with a removable tab bar for material testing. Some bars may have been removed by the manufacturer for testing.

### Material Specifications:

Provide anchor bolt and their assemblies in accordance with Section 724, "Structural Steel." Meet the following:

Anchor Bolts: 4 required and shall meet the requirements of ASTM F1554 Grade 55 and have a minimum yield strength of 55,000 PSI for shoe base assembly. Provide ASTM A325 anchor bolts for transformer base assembly with a minimum yield strength of 92,000 PSI.

Hex Nuts: 4 required and shall meet the requirements of ASTM A-563 Grade A for heavy hex type.

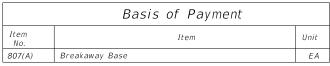
Flat Washers: 4 required and shall meet the requirements of ASTM F436 for hardened steel washers. Note: If breakaway base design A or B is to be installed, additional extra thick flat washers required. See Standard HLBP1-1.

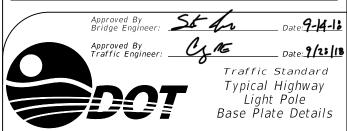
Lock Washers: 4 required and shall meet the requirements of ASTM F436 for hardened steel washers.

- All bolts, nuts and washers shall be galvanized in accordance with ASTM A-153 (AASHTO M-232).
- 3. Anchor bolts, nuts, and washers shall be furnished with each anchor base and transformer base mounted pole.

Anchor Bolt Fabrication Tolerances Table	
Dimension	Tolerance
Length	± ½"
Threaded Length	± ½"
Galvanized Length (If Required)	- 1/4"

# Anchor Bolt Tolerances





2009 Specifications

HLBP1-1

01 T-308