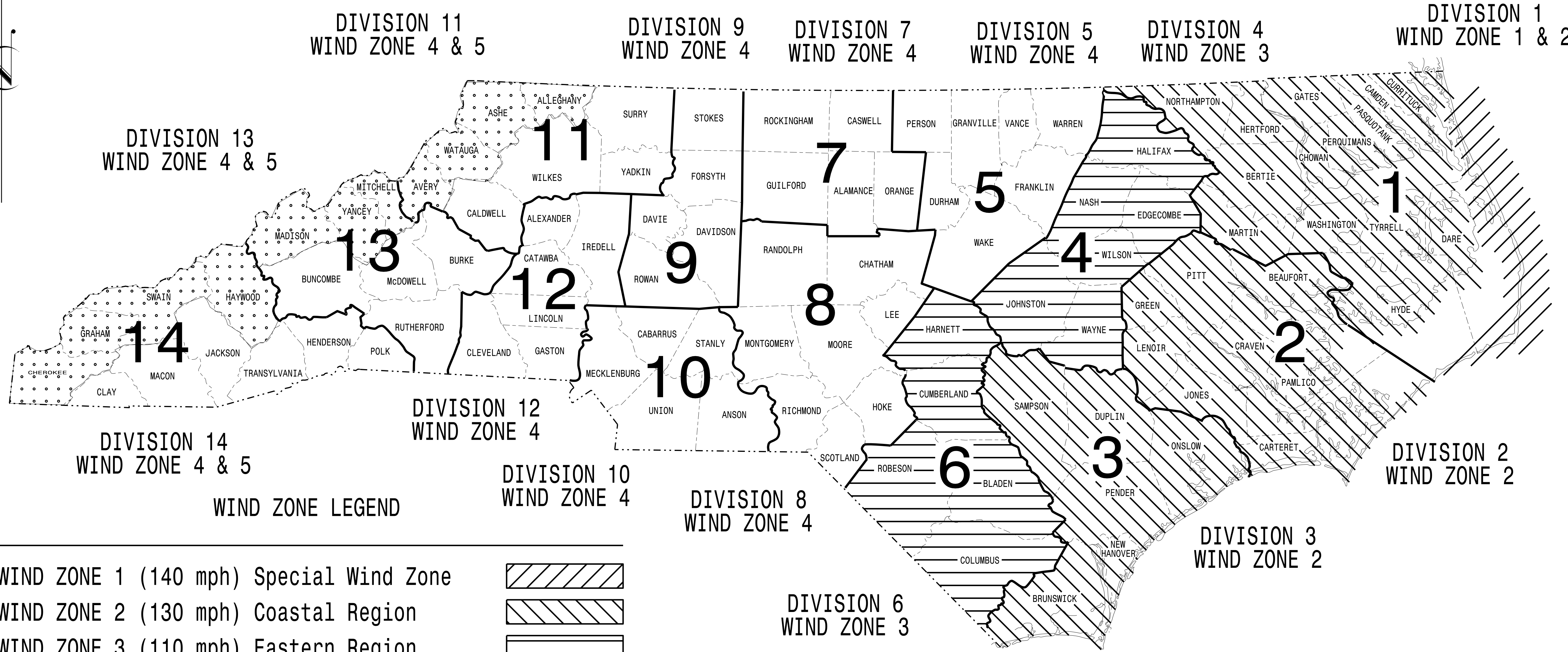


# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT I.D. NO. U-5775	SHEET NO. Sig.M1
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## STANDARD DRAWINGS FOR ALL METAL POLES



WIND ZONE LEGEND

WIND ZONE 1 (140 mph) Special Wind Zone	
WIND ZONE 2 (130 mph) Coastal Region	
WIND ZONE 3 (110 mph) Eastern Region	
WIND ZONE 4 (90 mph) Central & Mtn. Region	
WIND ZONE 5 (120 mph) Special Wind Zone	

<https://connect.ncdot.gov/resources/safety/Pages/ITS-Design-Resources.aspx>

Prepared In the Offices of:

750 N. Greenfield Pkwy.  
Garner, NC 27529

Designed in conformance with the latest 2015 Interim to the 6th Edition 2013 **AASHTO** Standard Specifications for Highway Signs, Luminaires, and Traffic Signals

DRAWING NUMBER	DESCRIPTION
Sig. M 1	Statewide Wind Zone Map
Sig. M 2	Typical Fabrication Details-All Metal Poles
Sig. M 3	Typical Fabrication Details-Strain Poles
Sig. M 4	Typical Fabrication Details-Mast Arm Poles
Sig. M 5	Typical Fabrication Details-Mast Arm Connection
Sig. M 6	Typical Fabrication Details-Strain Pole Attachments
Sig. M 7	Construction Details-Foundations
Sig. M 8	Standard Strain Pole Foundation-All Soil Conditions

**NC DOT CONTACTS:**

**MOBILITY AND SAFETY DIVISION - ITS AND SIGNALS UNIT**

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M.M. MCDIARMID, P.E. - STATE ITS AND SIGNALS ENGINEER

J.P. GALLOWAY, P.E. - STATE SIGNALS ENGINEER

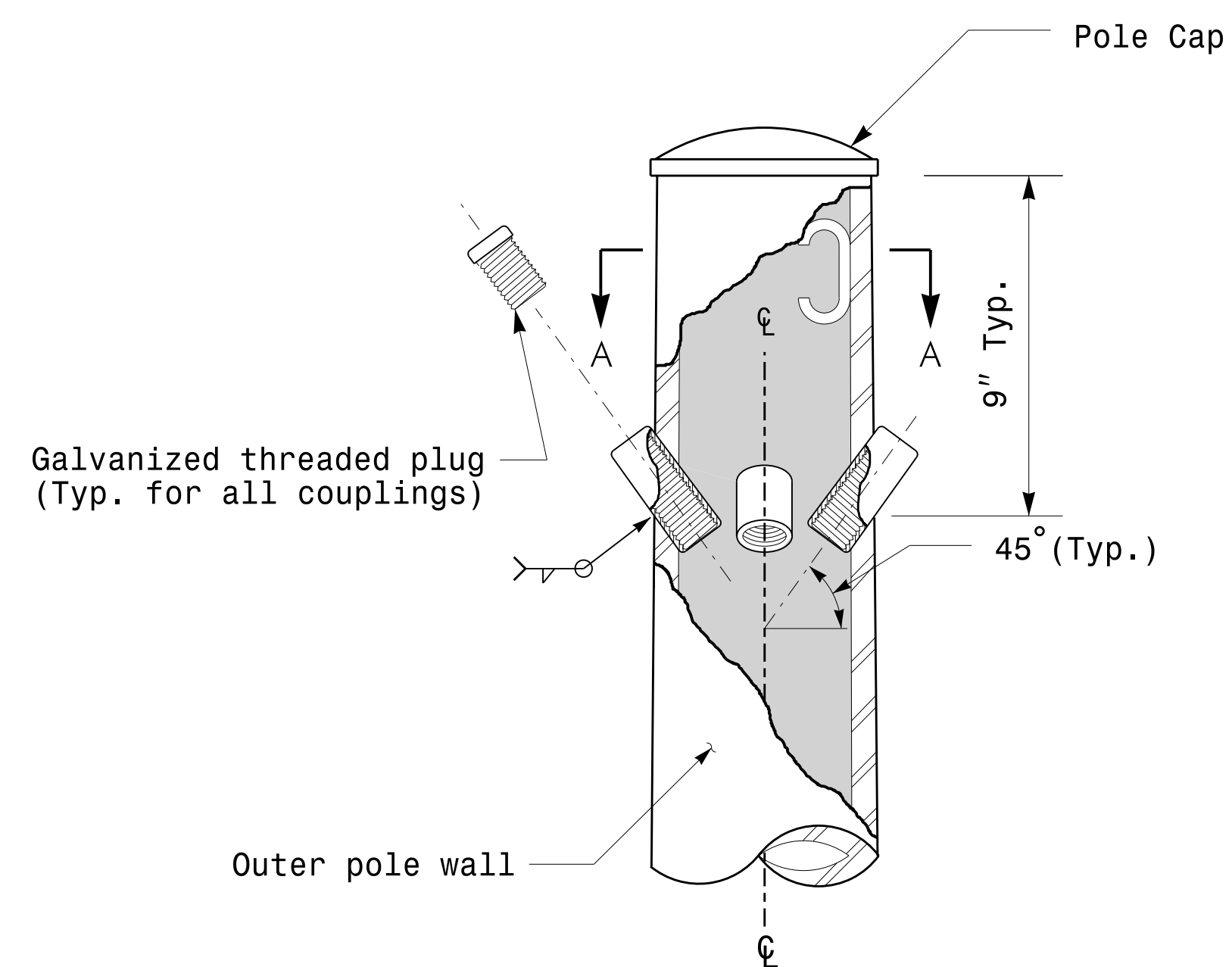
D.C. SARKAR, P.E. - ITS AND SIGNALS SENIOR STRUCTURAL ENGINEER

SEAL

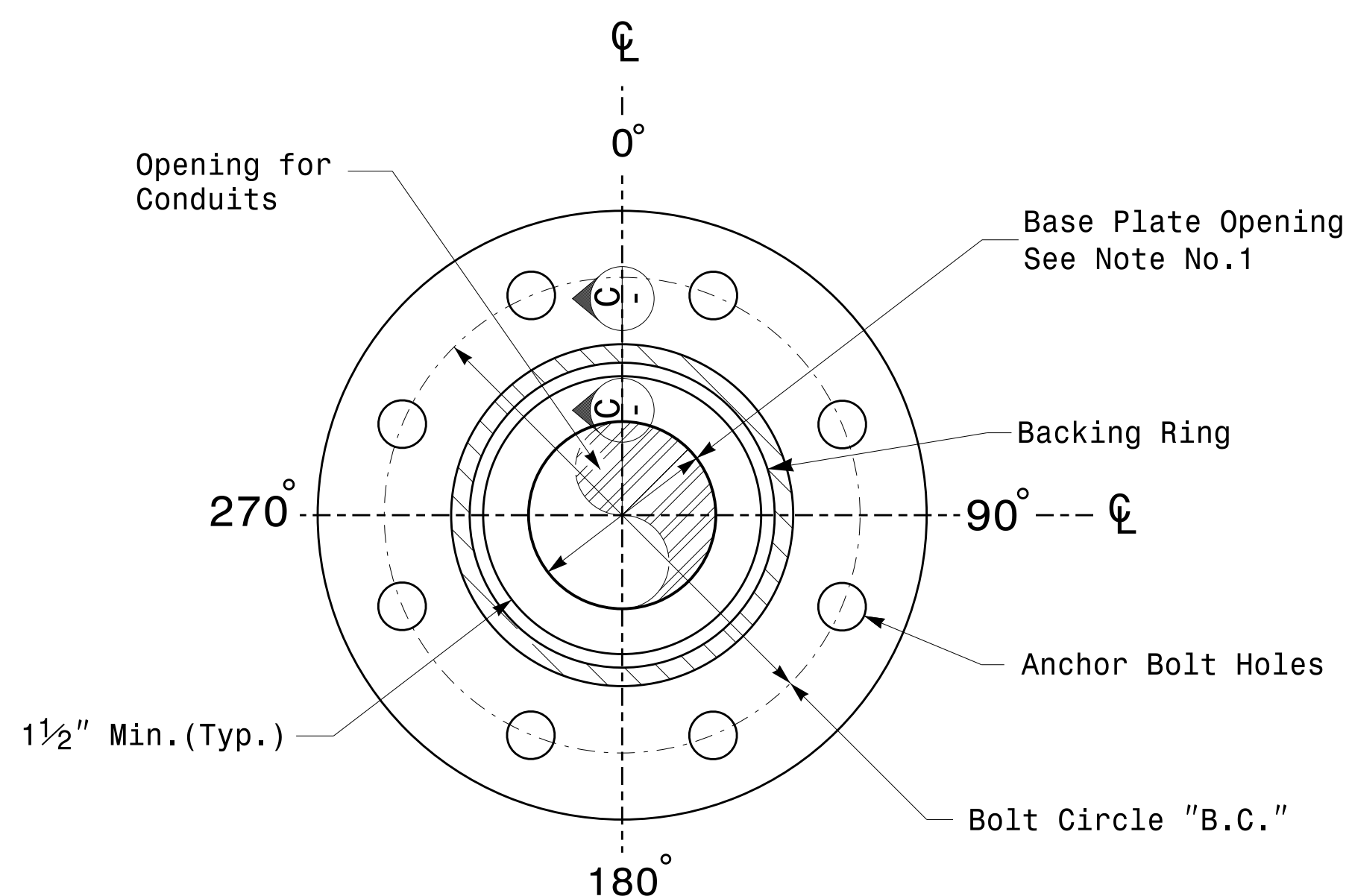
DocuSigned by:  
Debesh C. Sarkar  
DATE 10/11/2017



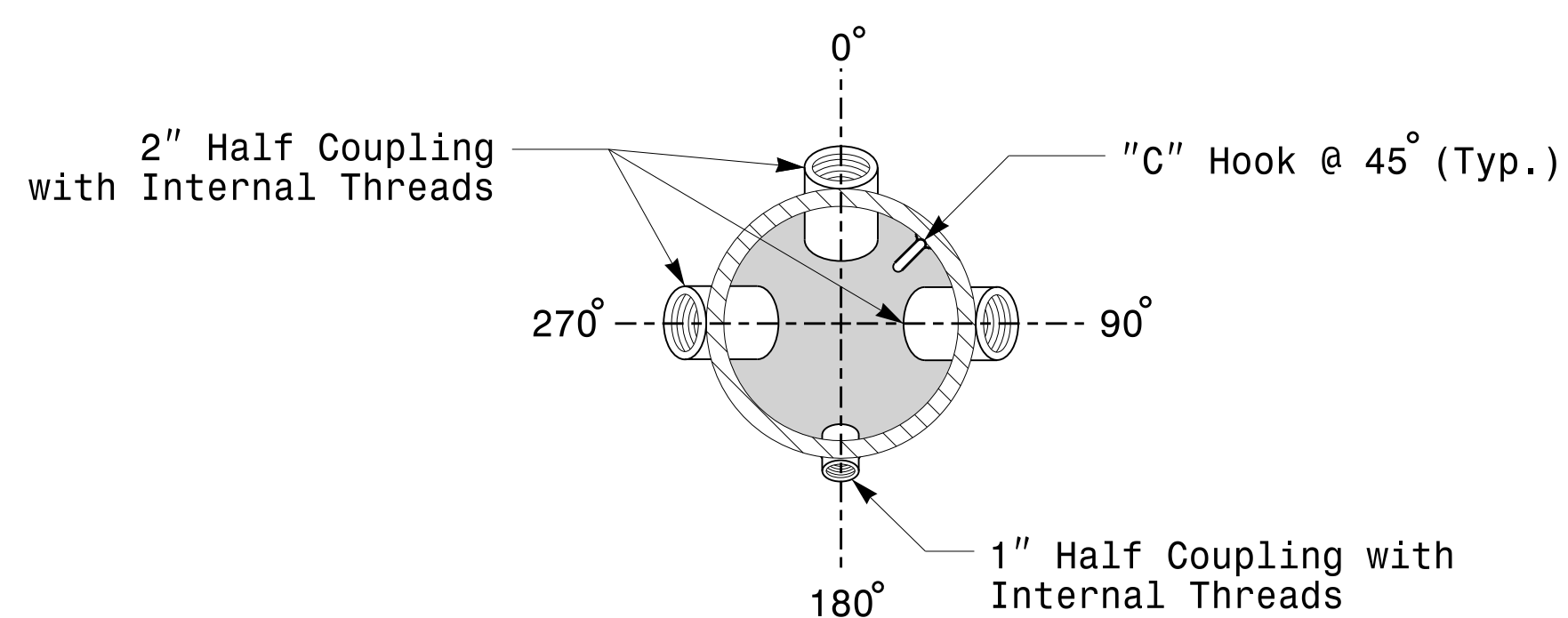
Note:  
 1. Opening in pole base plate shall be equal to pole base inside diameter minus 3 1/2" but shall not be less than 8 1/2".



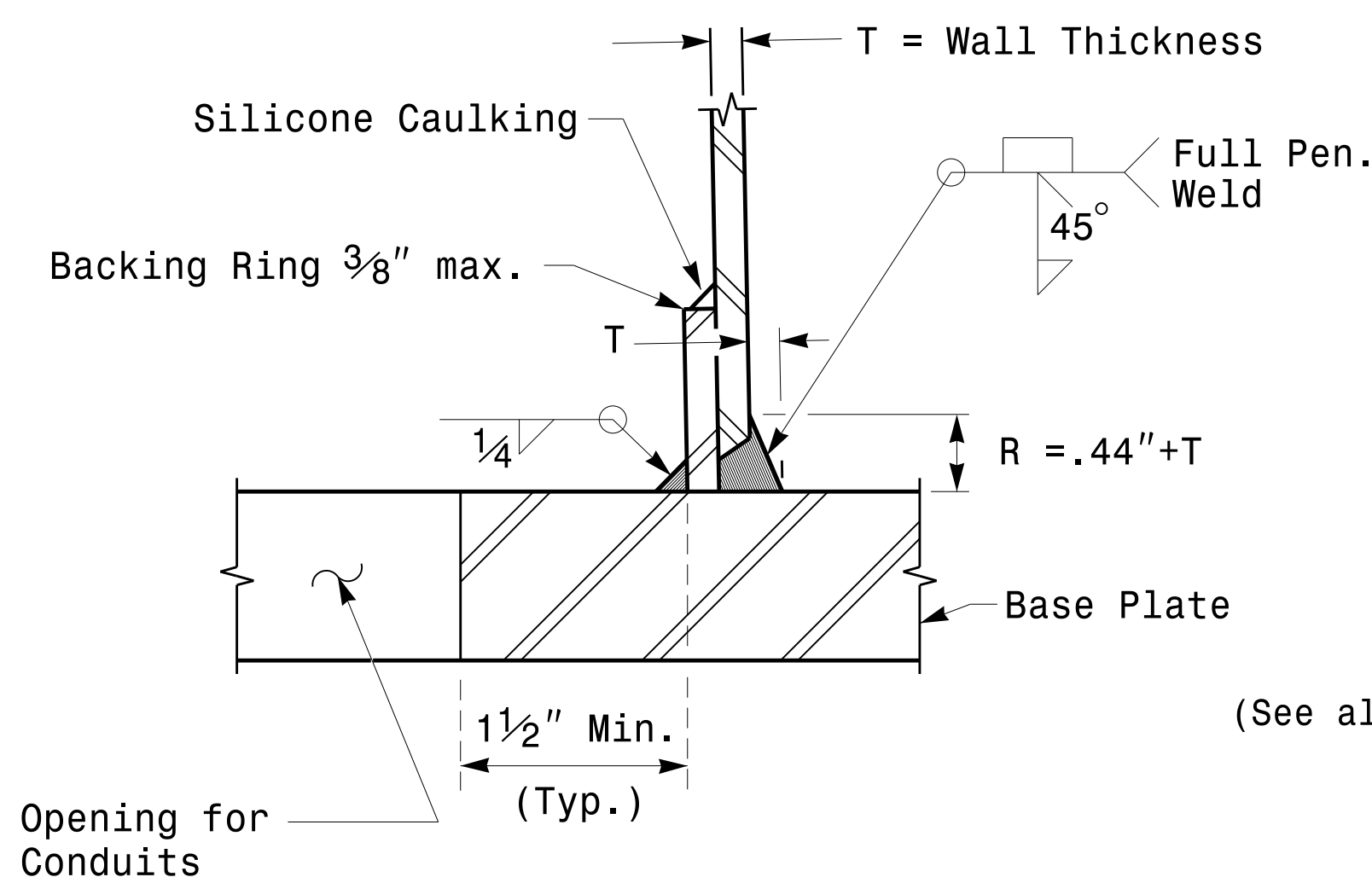
Cable Entrances at Top of Pole



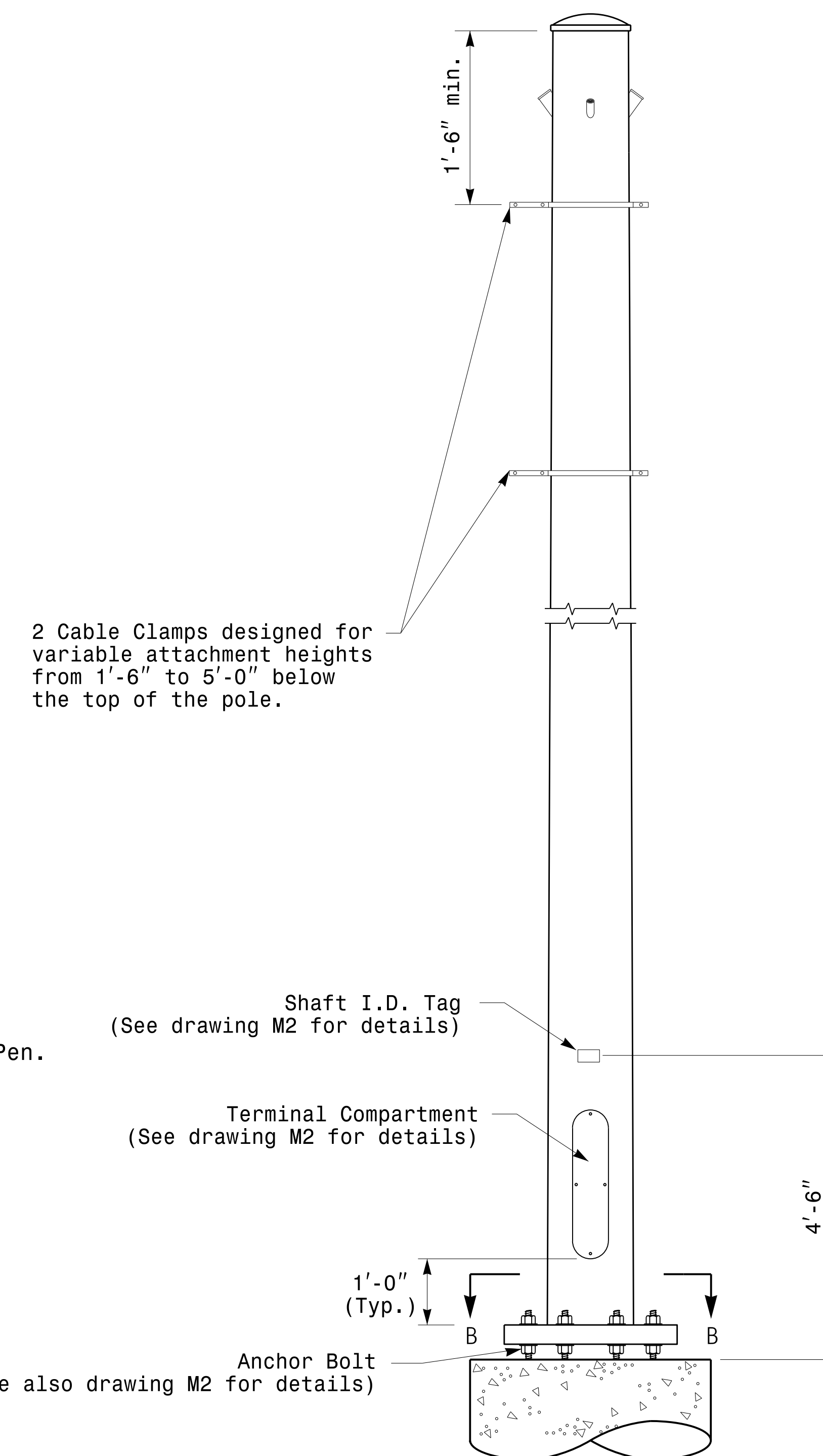
Section B-B Pole Base Plate Details (8 and 12 Bolt Pattern)



Section A-A Radial Orientation for Factory Installed Accessories at Top of Pole



Section C-C Full-Penetration Groove Weld Detail (Pole Attachment to Base Plate)

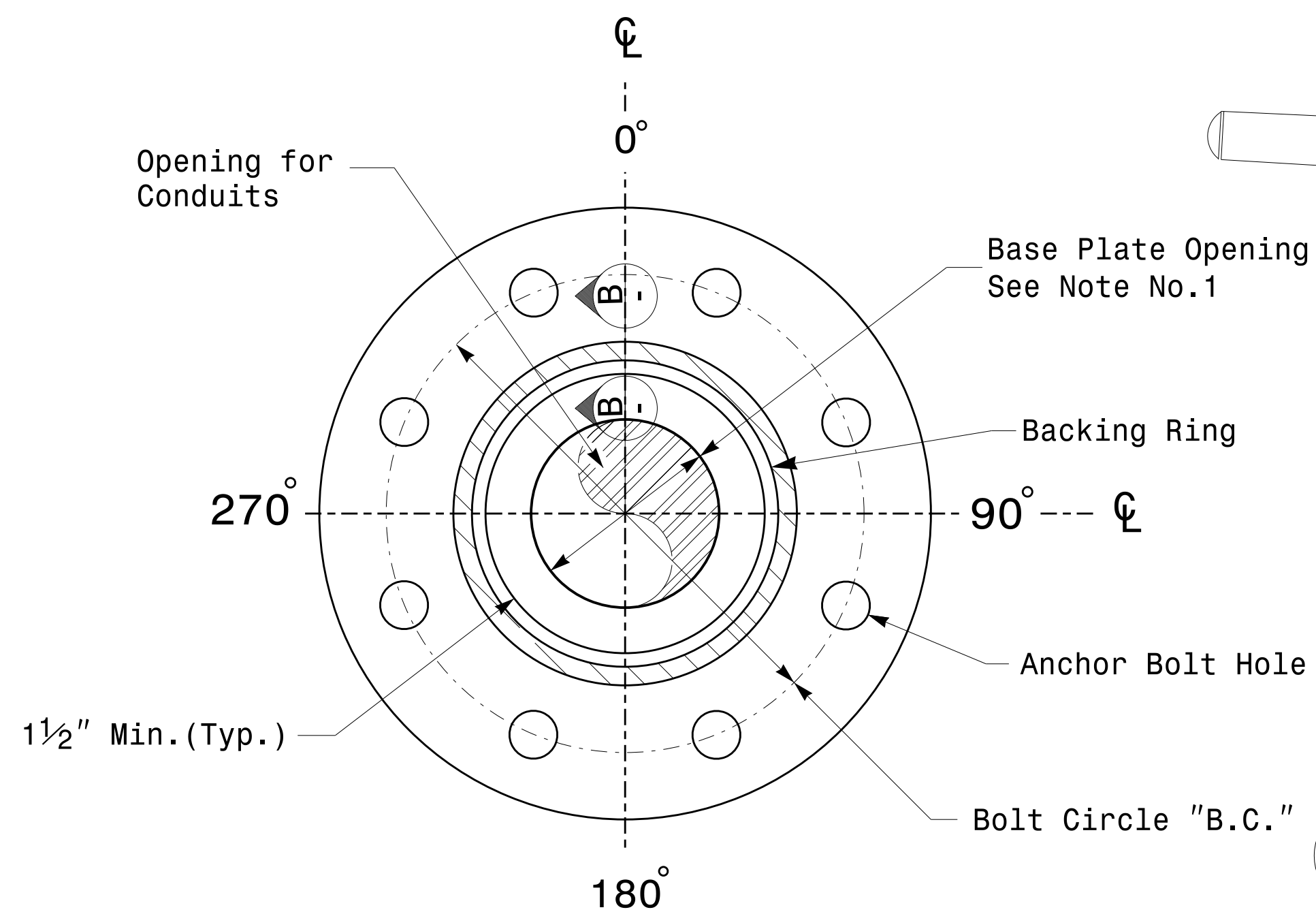


Monotube Strain Pole

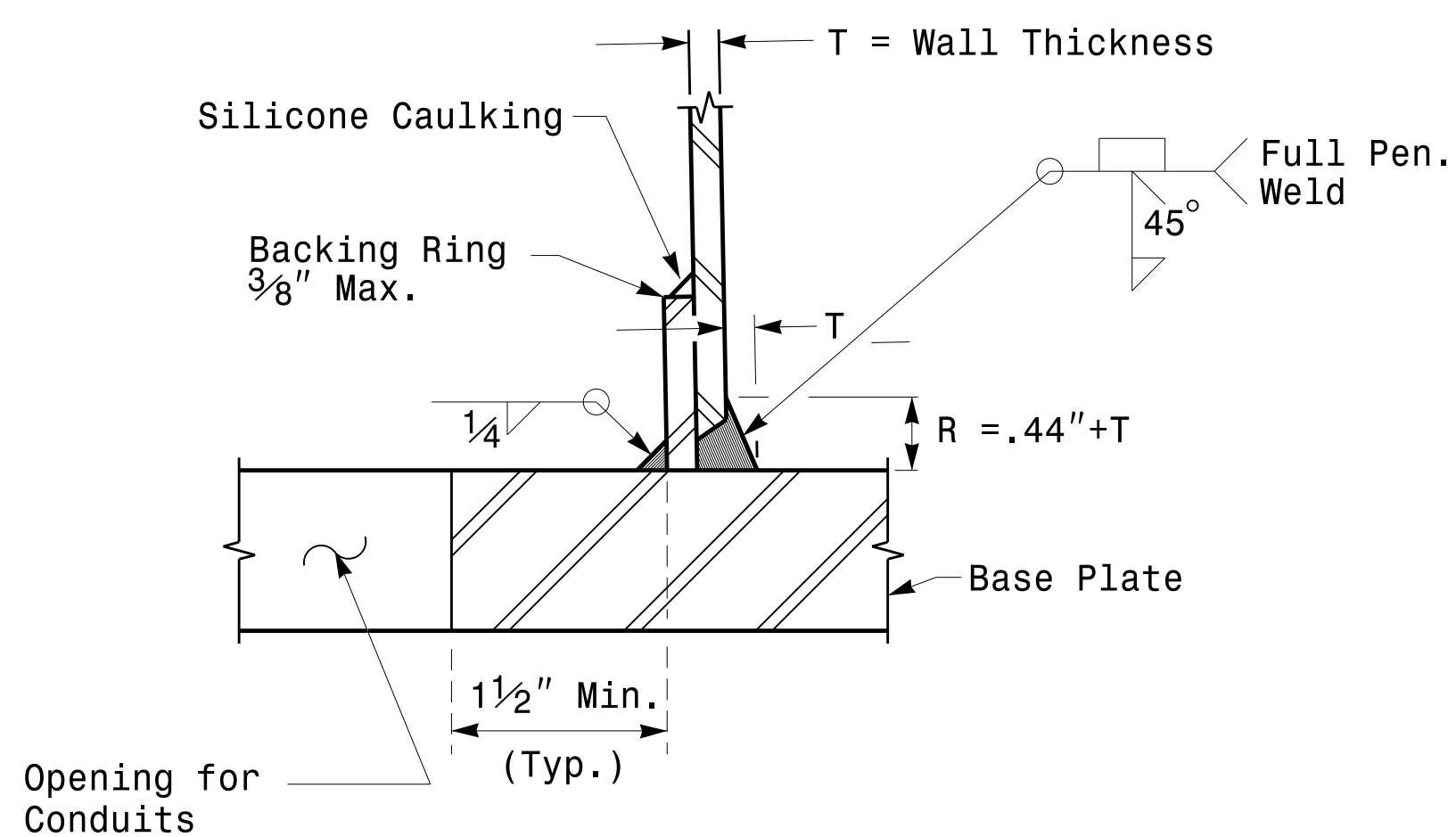
<p>750 N. Greenfield Pkwy, Garner, NC 27529</p>	<p>Typical Fabrication Details For Strain Poles</p>		
	<p>PLAN DATE: OCTOBER 2017</p>	<p>DESIGNED BY: K.C. DURIGON</p>	
<p>SCALE: NONE</p>	<p>PREPARED BY: N. BITTING</p>	<p>REVIEWED BY: D.C. SARKAR</p>	<p>DocuSigned by: Debesh C. Sarkar</p>
<p>SCALE: NONE</p>	<p>REVISIONS</p>	<p>INIT. DATE</p>	<p>10/11/2017</p>

Fabrication Details – Strain Poles

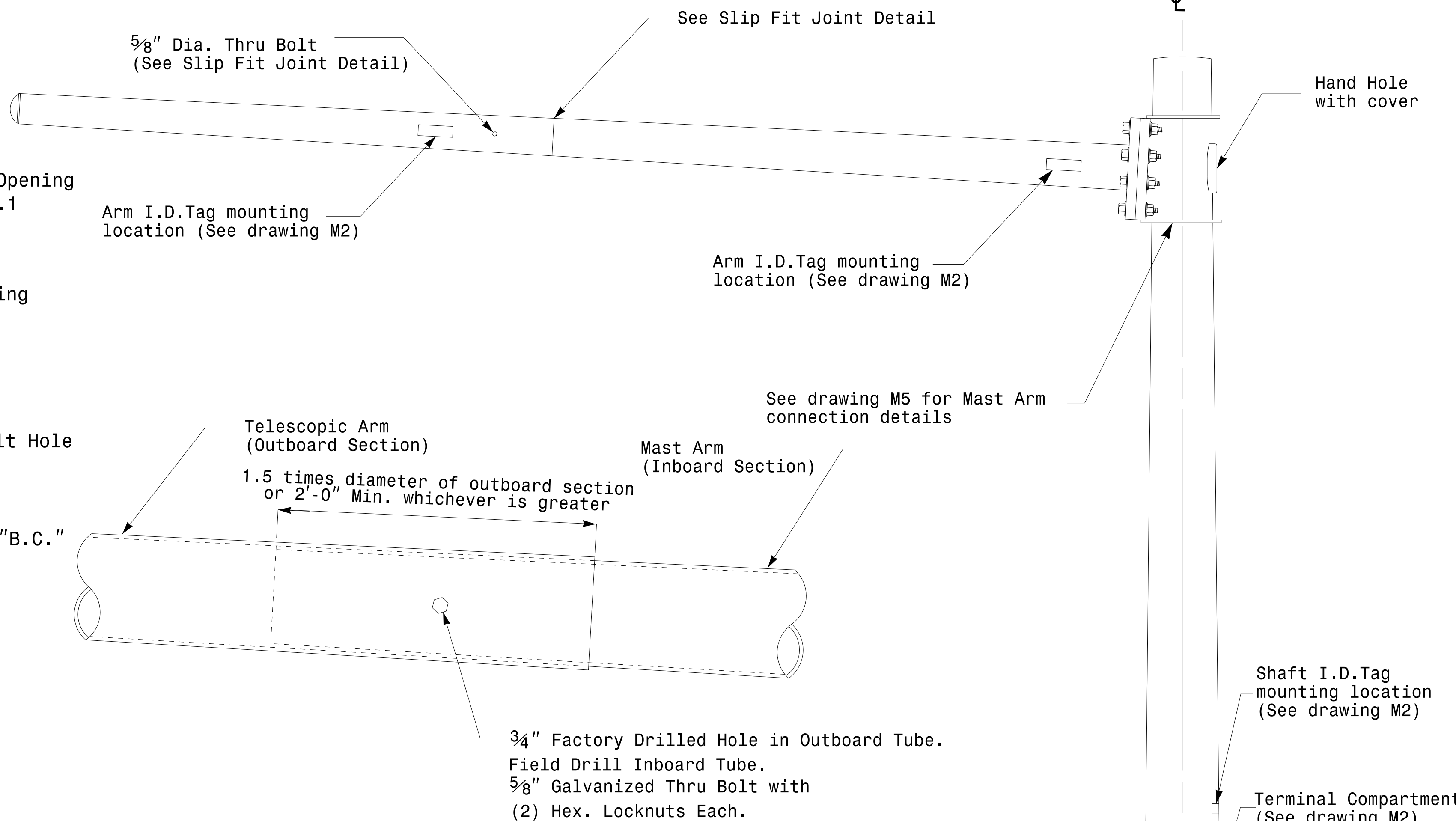
Note:  
 1. Opening in pole base plate shall be equal to pole base inside diameter minus 3 1/2" but shall not be less than 8 1/2".



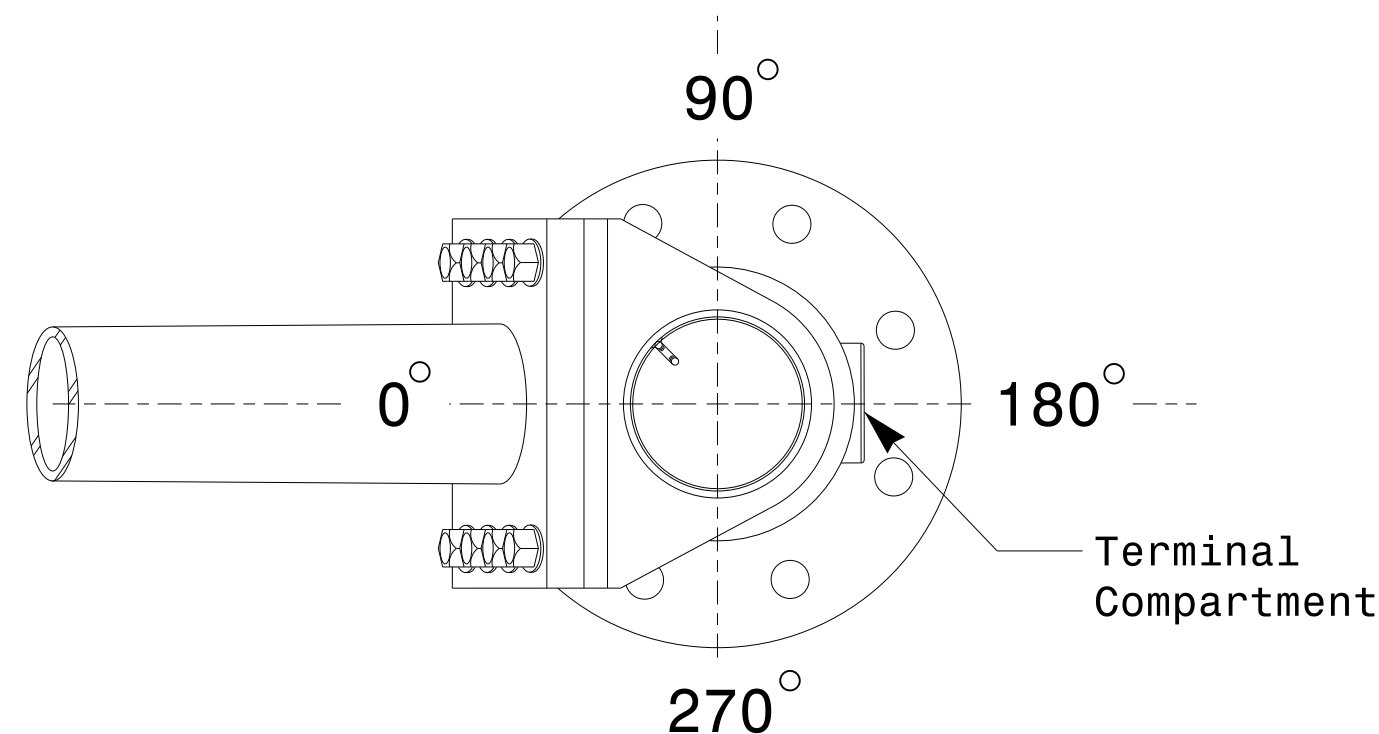
**Section A-A**  
**Pole Base Plate Details**



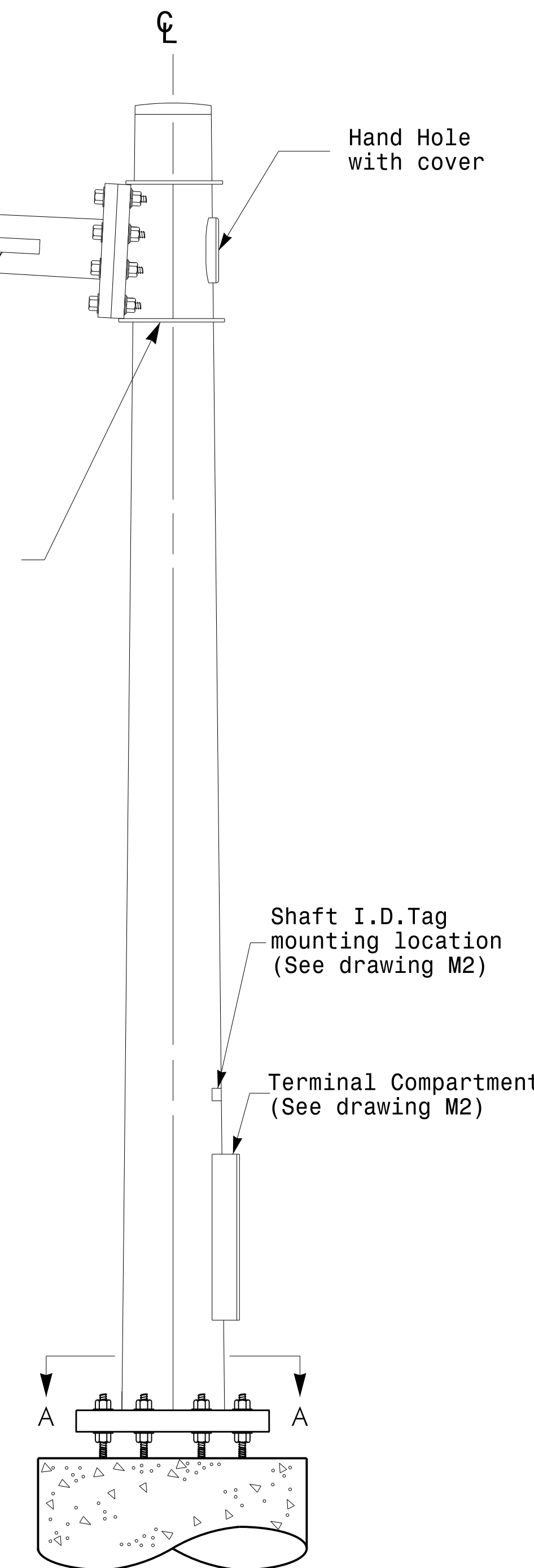
**Section B-B**  
 (Pole Attachment to Base Plate)  
**Full-Penetration Groove Weld Detail**



**Slip Fit Joint Detail for Mast Arm**



**Mast Arm Radial Orientation**



**Mast Arm Pole**

**Fabrication Details - Mast Arm Poles**

<p>Prepared in the Offices of:</p> <p>750 N. Greenfield Pkwy, Garner, NC 27529</p>	<p>Typical Fabrication Details                  For                  Mast Arm Poles</p>		<p>SEAL</p>
	<p>PLAN DATE: OCTOBER 2017</p>	<p>DESIGNED BY: K.C. DURIGON</p>	
<p>SCALE: 0 NA NONE</p>	<p>PREPARED BY: N. BITTING</p>	<p>REVIEWED BY: D.C. SARKAR</p>	<p>INIT. DATE</p>
<p>DocuSigned by: <i>Dinesh C. Sarkar</i></p>			<p>10/11/2017</p>

11-OCT-2017 08:33 136560115 Signal&Signal Design Section Eastern Region\m4 Sheets\2016\2014 Sig.M4 Std. Fabrication Detail-Mast Arm Poles.dgn