

## MAPA Meeting - November 1, 2022

### Recent and Upcoming Policy Changes (effective January 1, 2023 unless otherwise noted)

1. Sec. 806.10.3.2 has been revised for clarification and to be consistent with previous Sec. 806 revisions. Straw is no longer used for sediment control.

**806.10.3.2 Type C Berms.** Vegetative mulch, erosion control blanket or geotextile fabric, if required by the engineer, shall be placed on the upslope of the Type C berm. The vegetative mulch shall be placed in such a manner that the final compacted thickness is 2 inches. The material for the vegetative mulch shall be in accordance with Sec 802. The ~~straw layer~~ vegetative mulch erosion control blanket or geotextile fabric shall be removed and replaced as directed by the engineer.

2. Sec. 806.80.1 has been revised for clarification and to add the cross reference to Sec. 806.100 for temporary stream crossings.

**806.80.1 Description.** This work shall consist of installing and removing temporary pipe utilized to carry water under temporary roadways, silt fences, berms or other locations determined by the engineer ~~and to prevent the contractor's equipment from coming in direct contact with water when crossing an active stream, intermittent streams created during heavy rainfalls or other bodies of water.~~

**806.80.2 Material.** Any pipe approved by the engineer may be used.

**806.80.3 Construction Requirements.** Installation of temporary pipe shall be in accordance with the specifications for permanent pipe and shall prevent water from causing erosion around the pipe. All backfill material for pipes shall be placed in 6-inch lifts and mechanically compacted. Compaction tests will not be required. Temporary pipe placed in intermittent or active streams for the convenience of the contractor shall be installed in accordance with Sec 806.100 and any applicable permits ~~shall be backfilled with clean rock of sufficient size to withstand normal stream flows.~~

3. Std. Plan revisions:

606.50 - Added a general note to state no additional payments will be made for cutting over-sized holes or placing aggregate material for guardrail posts.

616.10 - In Table A Work Zone Sign Mounting Requirements, usage limitations have been updated for Type 2 portable signs. They can only be used for progressive work (ie. asphalt overlays), stationary work that will be completed in 3 days or less, or intermediate/discontinuous work that may exceed 3 days.

903.03 - 3" pipe posts are being discontinued due to 2.5" pipe posts being able to carry the same sign capacity/square footage.

#### 4. Additional Buy America requirements for non-iron/steel materials has been added to Supplemental Revisions JSP. A link to the certification form is in the JSP and on CM's website. Eff. Nov. 2022

##### Buy America

In addition to Section 106.9 of the Missouri Standard Specifications for Highway Construction, the following requirements will also be in effect for this project.

**1.0 Description.** The Bipartisan Infrastructure Law (BIL) was enacted on November 15, 2021. The BIL includes Build America, Buy America Act Publication L. No. 117-58. This provision expands the Buy America requirements beyond what is currently only required for steel and iron products. The steel and iron provisions have not changed with the new bill. Cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives are excluded from this requirement. All other materials and manufactured products permanently incorporated into the project will be subject to Buy America requirements. There are three categories requiring Buy America Certification:

- a) Iron and steel – no changes to the current specification requirements.
- b) Manufactured products – these are currently exempted under the 1983 waiver from FHWA.
- c) Construction materials consisting primarily of:
  - Non-ferrous metals;
  - Plastic and polymer-based products (including polyvinylchloride, composite build materials, and polymers used in fiber optic cables);
  - Glass (including optic glass);
  - Lumber; or
  - Drywall

**1.1** All products and or materials will only be classified under one of these categories and not under multiple categories. It is the prime contractor's responsibility to assure all submittals required for Buy America are submitted to the Engineer prior to the products and or materials being incorporated in the job. The implementation of this policy will be in effect for all projects awarded after November 10, 2022.

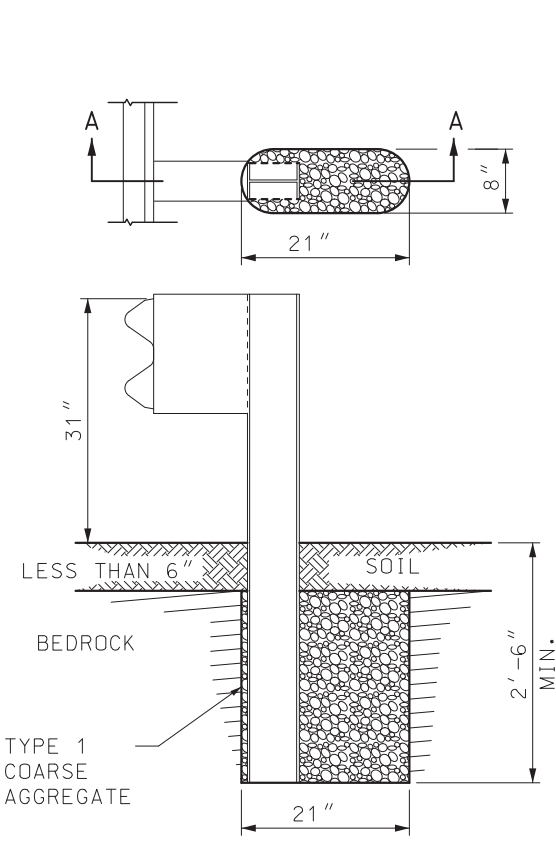
**1.2** New items designated as construction materials under this requirement will require the prime contractor to submit a material of origin form certification prior to incorporation into the project. The Certificate of Material origin form ([link to certificate form](#)) from the supplier and/or fabricator must show all steps of the manufacturing being completed in the United States. The Certificate of Material form shall be filed with the contract documents.

**1.3** Any minor miscellaneous construction material items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. The certification shall read "I certify all materials permanently incorporated in this project covered under this provision have been to the best of my knowledge procured and all manufactured domestically." The certification shall be signed by an authorized representative of the prime contractor.

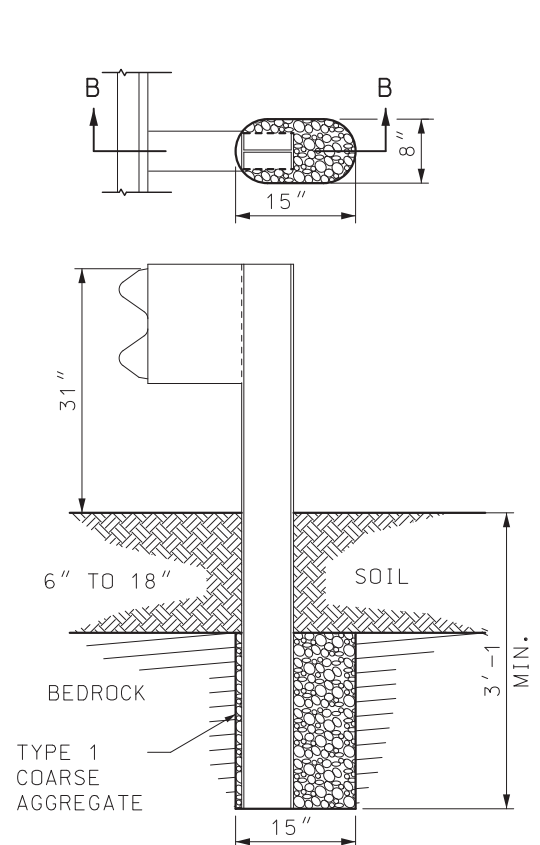
**1.4** The National Transportation Product Evaluation Program (NTPEP) compliance program verifies that some non-iron and steel products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and an acceptable standard per 23 CFR 635.410(d). NTPEP compliant suppliers will not be required to submit step certification documentation with the shipment for some selected non-iron and steel materials. The NTPEP compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

**2.0 Basis of Payment.** Any costs incurred by the contractor by reason of compliance with the above requirements shall be considered as included in and completely covered by the unit price bid for the various items of work included in the contract.

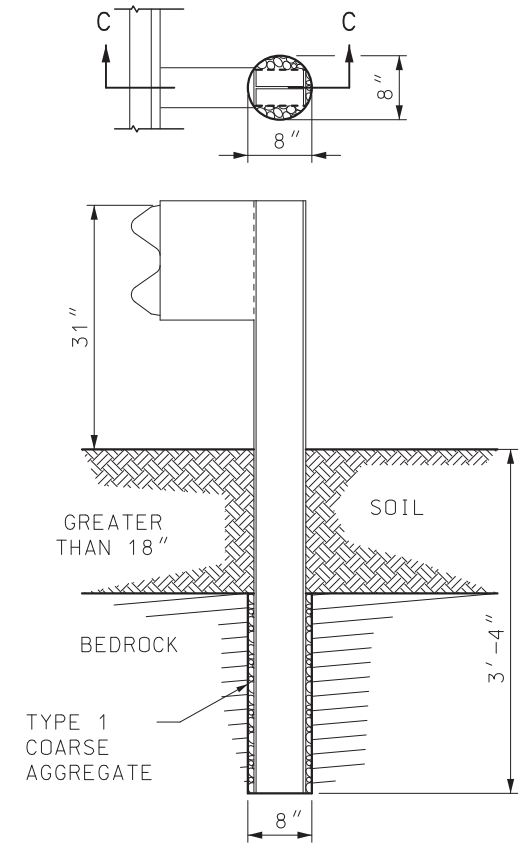
#### 5. Engineering Policy Services is working on a lump sum temporary traffic control JSP for use statewide. We will also be updating Job Order Contracts for 2023.



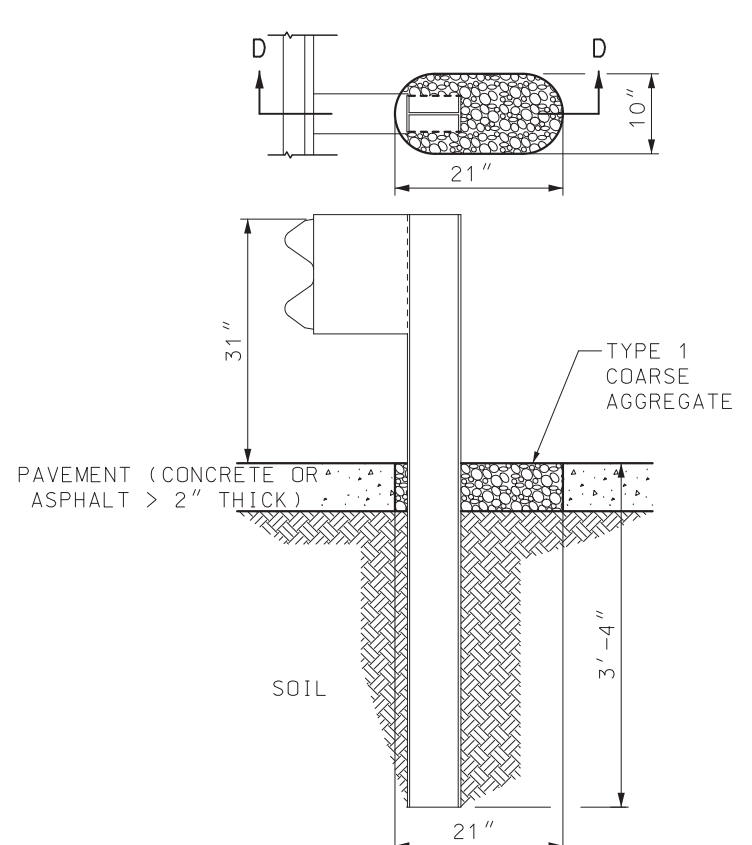
SECTION A-A  
ROCK ENCOUNTERED  
UP TO 6" BENEATH SURFACE



SECTION B-B  
ROCK ENCOUNTERED  
6" TO 18" BENEATH SURFACE

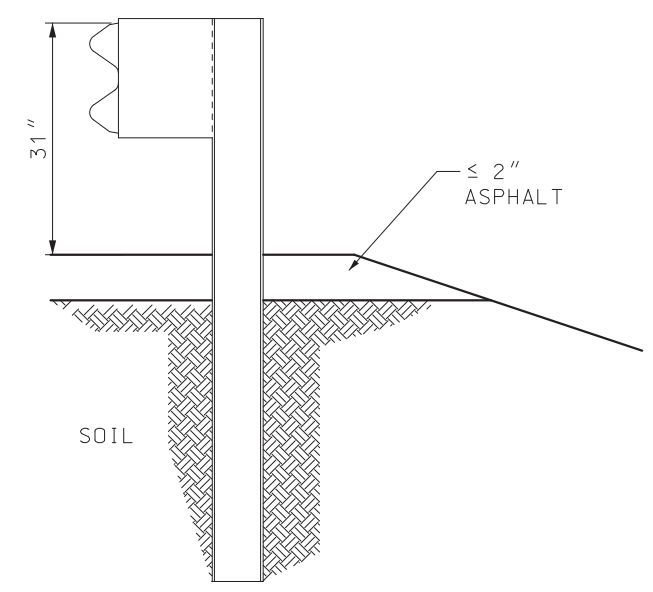


SECTION C-C  
ROCK ENCOUNTERED MORE  
THAN 18" BENEATH SURFACE



SECTION D-D  
SETTING POST THROUGH PAVEMENT  
(CONCRETE OR ASPHALT > 2" THICK)

SETTING POST IN SOLID ROCK



SETTING POST THROUGH ASPHALT ≤ 2" THICK

GENERAL NOTES:

HOLES IN SOLID ROCK SHALL PROVIDE A DIAMETER OF NOT LESS THAN 4 INCHES GREATER THAN THE MAXIMUM TRANSVERSE DIMENSION OF THE POST SECTION.

POST MAY BE SHORTER WHERE PLACED IN 2 FEET OF SOLID ROCK. STEEL POSTS MAY BE FLAME OR SAW CUT. REPAIR OF CUT SHALL BE IN ACCORDANCE WITH SEC 712 OF THE STANDARD SPECIFICATIONS.

NO ADDITIONAL PAYMENT WILL BE MADE FOR CUTTING THE OVERSIZED HOLES OR PLACING AGGREGATE IN THE HOLES, AS INDICATED IN THIS PLAN.

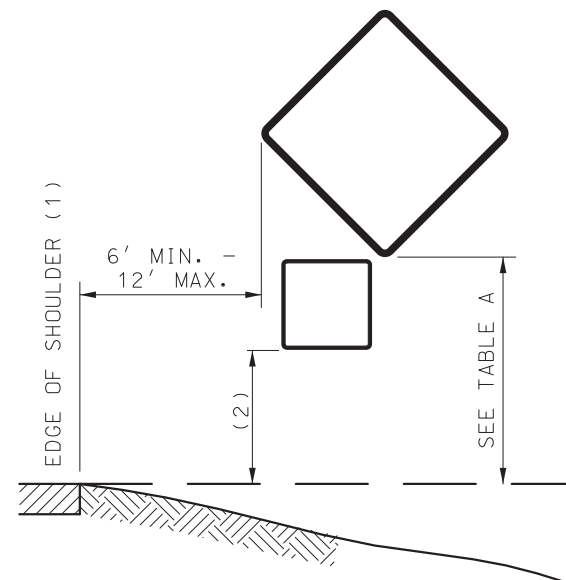
	<b>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</b> 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
		<b>MIDWEST GUARDRAIL SYSTEM (MGS) SPECIAL INSTALLATIONS</b>
DATE EFFECTIVE: 01/01/2023 DATE PREPARED: 10/7/2022	<b>606.50E</b>	SHEET NO. <b>5 OF 8</b>

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

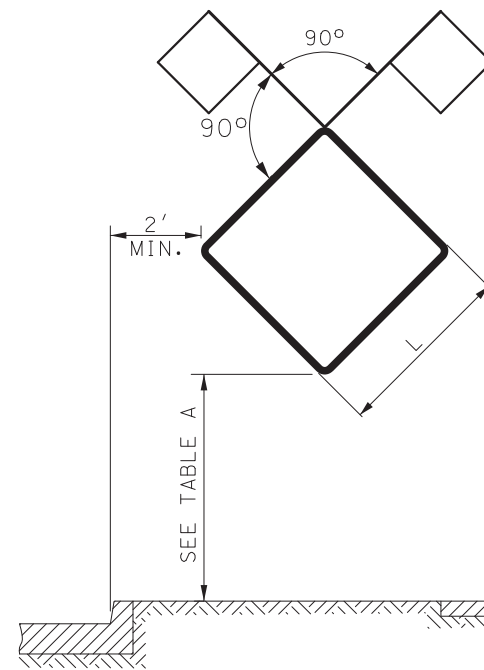
**TABLE A  
WORK ZONE SIGN MOUNTING REQUIREMENTS**

TYPE	SIGN SUPPORT	SIGN SUBSTRATE	MINIMUM MOUNTING HEIGHT(3)	USAGE LIMITATIONS	COMMENTS
POST	PERFORATED SQUARE STEEL TUBE U-CHANNEL WOOD	RIGID	5' RURAL UNDIVIDED HIGHWAYS 7' RURAL DIVIDED HIGHWAYS 7' URBAN HIGHWAYS	NONE	POSTS SHALL BE FREE OF ANY BRACING AND EXTEND NO FURTHER ABOVE THE SIGN EXCEPT AS NEEDED FOR WARNING LIGHT ATTACHMENT. FOR DETAILS OF POST INSTALLATION DETAILS SEE SHEET NO. 2 OF 9. GALVANIZATION OF POSTS WILL NOT BE REQUIRED.
TYPE 1 PORTABLE	SKID FOLD-UP STAND	RIGID	5' RURAL UNDIVIDED HIGHWAYS 7' RURAL DIVIDED HIGHWAYS 7' URBAN HIGHWAYS	PERMITTED ONLY WHERE POST MOUNTING IS NOT FEASIBLE.	SYSTEMS SHALL COMPLY WITH CRASH TEST REQUIREMENTS OF NCHRP 350 OR MASH 2016 TL-3 AND MAY BE PLACED ADJACENT TO OR WITHIN THE ROADWAY PROVIDED A MINIMUM LATERAL CLEARANCE OF 3 FEET, MEASURED HORIZONTALLY FROM THE EDGE OF THE SIGN TO THE EDGE OF DESIGNATED TRAVELED WAY, IS MAINTAINED.
TYPE 2 PORTABLE	EASEL FOLD-UP STAND SELF-DRIVING POST TYPE III MOVABLE BARRICADE SKID	FLEXIBLE RIGID	12" (4)	PERMITTED FOR PROGRESSIVE WORK SUCH AS ASPHALT OVERLAYS. PERMITTED FOR STATIONARY WORK EXPECTED TO BE COMPLETED IN 3 DAYS OR LESS. PERMITTED FOR INTERMEDIATE/DISCONTINUOUS STATIONARY WORK THAT MAY EXCEED 3 DAYS IN TOTALITY, AS APPROVED BY THE ENGINEER. (5) WHERE SIGNS ARE OBSCURED BY OTHER OBJECTS (I.E., TRAFFIC CONTROL DEVICES, PARKED VEHICLES, BARRIERS, VEGETATION, ETC.) OR INSTALLED ON MULTILANE UNDIVIDED FACILITIES OR MULTILANE DIVIDED FACILITIES WITH 3 OR MORE LANES IN ONE DIRECTION, MOUNTING HEIGHTS SHALL BE AS SPECIFIED FOR POST-MOUNTED SIGNS.	SYSTEMS SHALL COMPLY WITH CRASH TEST REQUIREMENTS OF NCHRP 350 OR MASH 2016 TL-3 AND MAY BE PLACED ADJACENT TO OR WITHIN THE ROADWAY PROVIDED A MINIMUM LATERAL CLEARANCE OF 3 FEET, MEASURED HORIZONTALLY FROM THE EDGE OF THE SIGN TO THE EDGE OF DESIGNATED TRAVELED WAY, IS MAINTAINED.
BARRIER	CONCRETE TRAFFIC BARRIER GUARDRAIL	FLEXIBLE RIGID	5' RURAL UNDIVIDED HIGHWAYS 7' RURAL DIVIDED HIGHWAYS 7' URBAN HIGHWAYS	PERMITTED ONLY WHERE LONGITUDINAL BARRIER IS PRESENT.	SYSTEMS SHALL PROVIDE POSITIVE CONNECTION TO THE BARRIER AND MINIMIZE POTENTIAL FOR VEHICLE SNAGGING.
VEHICLE	PAVEMENT MARKING EQUIPMENT PILOT CAR PROTECTIVE VEHICLE	FLEXIBLE RIGID	48" (6)	PERMITTED ONLY IN PILOT CAR OR MOVING OPERATIONS.	

- (3) MEASURED FROM THE BOTTOM OF THE SIGN TO THE NEAR EDGE OF THE PAVEMENT.
- (4) MOUNTING HEIGHTS FOR REGULATORY AND GUIDE SIGNS SHALL BE AS SPECIFIED FOR POST-MOUNTED SIGNS.
- (5) SIGNS MOUNTED ON TYPE III BARRICADES, GORE EXIT SIGN, AND SIGNS FOR CROSSWALK/ SIDEWALK CLOSURES MAY BE LEFT IN PLACE FOR MORE THAN 3 DAYS.
- (6) DEVIATIONS AS APPROVED BY THE ENGINEER.



- (1) EDGE OF TRAVELED WAY WHERE THERE IS NO PAVED OR STABILIZED SHOULDER.
- (2) ONE-FOOT LESS THAN MOUNTING HEIGHT NOTED IN TABLE A.



**HEIGHT AND LATERAL LOCATIONS FOR  
POST AND PORTABLE SIGN MOUNTING**

**GENERAL NOTES:**

LONGITUDINAL SPACING OF SIGNS SHOWN IN THE PLANS ARE PREFERRED MINIMUMS, BUT MAY BE ADJUSTED TO MEET EXISTING FIELD CONDITIONS WITH APPROVAL FROM THE ENGINEER.

SIGNS SHALL NOT BE MOUNTED IN OR ON CHANNELIZERS.

ALL POSTS AND SIGNS SHALL BE INSTALLED AND MAINTAINED IN A PLUMB POSITION.

CONSTRUCTION SIGNS SHALL NOT BE LOCATED ON SIDEWALKS, BICYCLE LANES, OR AREAS DESIGNATED FOR PEDESTRIAN OR BICYCLE TRAFFIC.

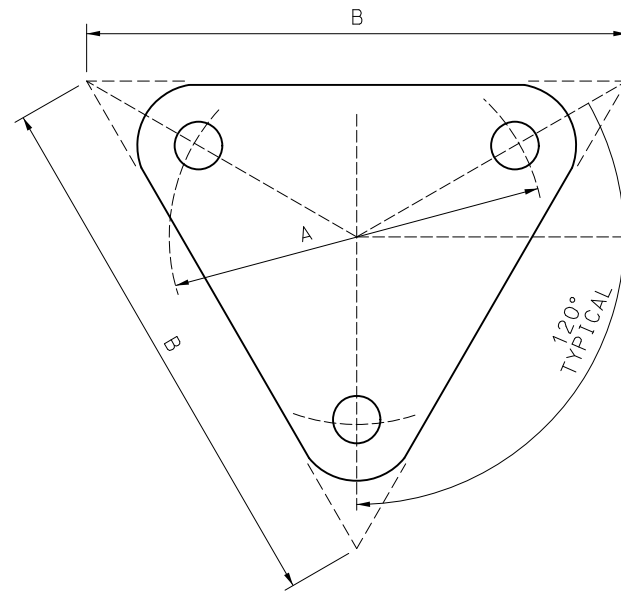
	<b>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</b> 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)
	<b>TEMPORARY TRAFFIC CONTROL DEVICES SIGN MOUNTING REQUIREMENTS</b>
DATE EFFECTIVE: 01/01/2023 DATE PREPARED: 10/7/2022	<b>616.10BA</b>
	SHEET NO. <b>1 OF 9</b>

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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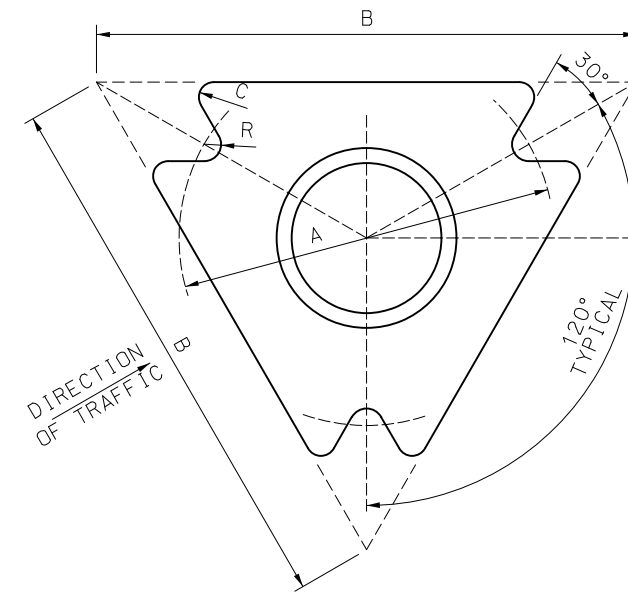
ROUND PIPE POST FOR GROUND MOUNTED SIGNS												
POST NOM SIZE (IN. - ID)	BOLT			WASHER			BASE CONNECTION DATA TABLE (IN.)					
	DIA IN.	LENGTH IN.	TORQUE IN./LB.	OD IN.	ID IN.	THICK IN.	A	B	C	R	T	W
2 1/2	1/2	3 1/2	140	1 1/16	1 7/32	1/8	6 1/4	9	1/4	9/32	1	1/4
<del>3</del>	<del>1/2</del>	<del>3 1/2</del>	<del>140</del>	<del>1 1/16</del>	<del>1 7/32</del>	<del>1/8</del>	<del>6 1/4</del>	<del>9</del>	<del>1/4</del>	<del>9/32</del>	<del>1</del>	<del>1/4</del>
4	5/8	3 3/4	345	1 5/16	1 1/16	1/8	7 3/16	10	1/4	3/8	1	5/16

ROUND PIPE POST AND FOOTING DATA TABLE						
NOM. SIZE (IN.)	WEIGHT		STUB LENGTH	FOOTING		CONCRETE C.Y.
	LBS/FT	LBS/IN		DIA.	DEPTH	
2 1/2	5.79	0.48	4' - 3 1/2"	12"	4'-6"	0.13
<del>3</del>	<del>7.58</del>	<del>0.63</del>	<del>4' - 3 1/2"</del>	<del>12"</del>	<del>4'-6"</del>	<del>0.13</del>
4	10.79	0.90	5' - 3 1/2"	18"	5'-6"	0.36

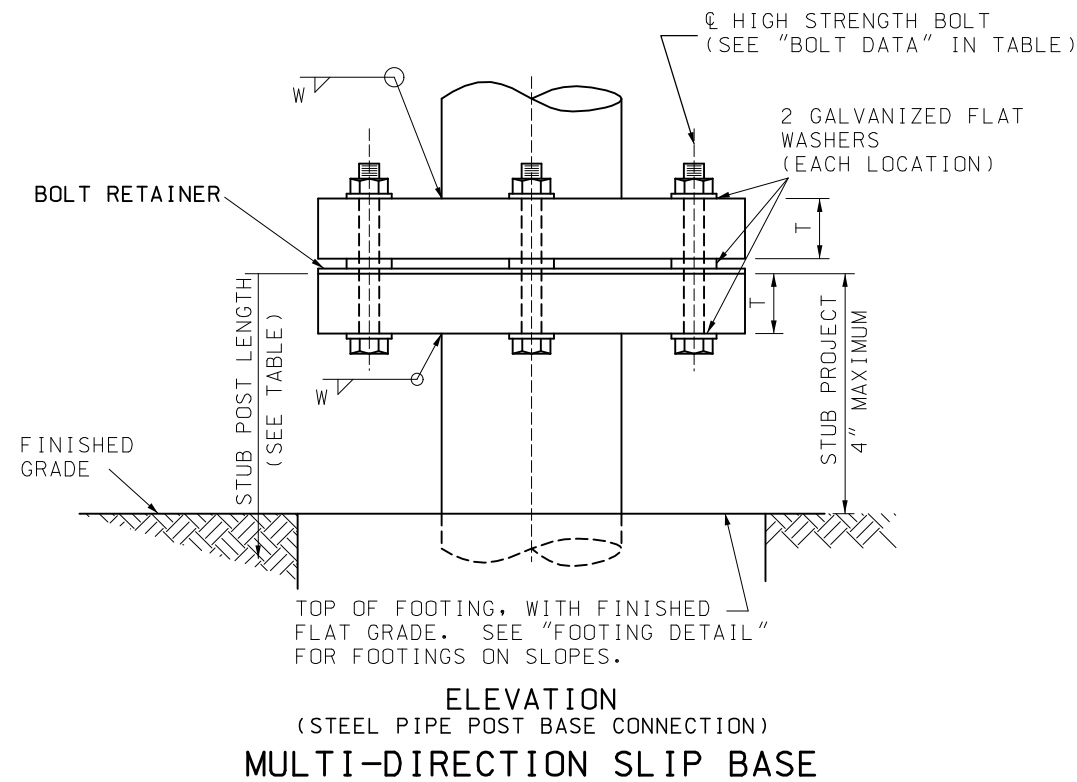


**BOLT RETAINER**

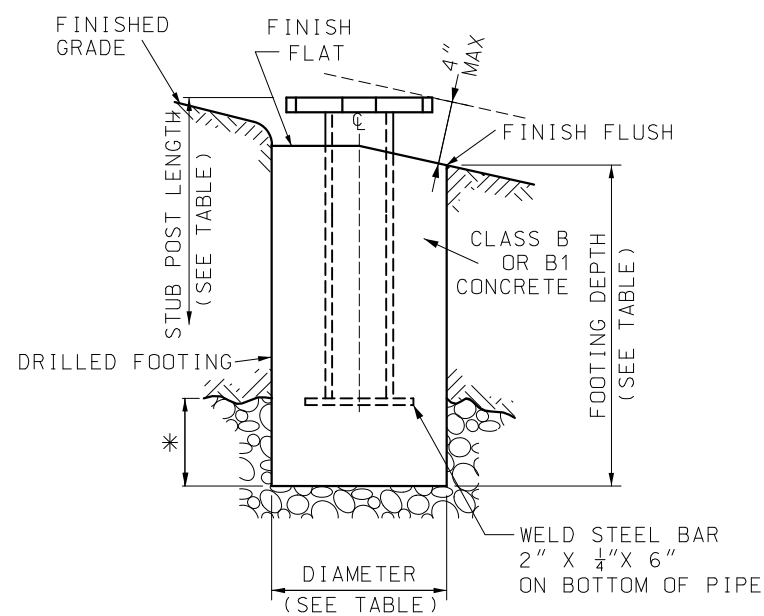
SHEET METAL BOLT RETAINER CUT FROM 30 GAUGE GALVANIZED SHEET METAL. PLACE BETWEEN BASE PLATES. SIZE VARIES TO FIT PLATE. BOLT HOLES SHALL BE 1/16" LARGER THAN REQUIRED BOLT SIZE.



**PLAN VIEW**



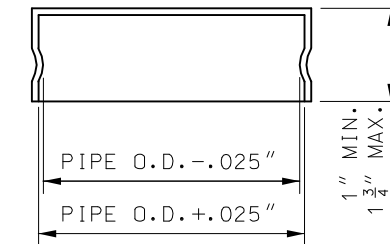
**ELEVATION  
(STEEL PIPE POST BASE CONNECTION)  
MULTI-DIRECTION SLIP BASE**



**FOOTING DETAIL**

\* PIPE 3" DIA. AND UNDER:  
2' MAXIMUM IN ROCK,  
PIPE OVER 3" DIA. ;  
3' MAXIMUM IN ROCK

ROLLED CRIMP TO ENGAGE PIPE O.D.



**FRICTION CAP**

NOTE:

FOR GENERAL NOTES, SEE SHEET 1 OF 16.

FOR MOUNTING HEIGHT AND OFFSET DETAILS, SEE STANDARD PLANS SHEET 10 OF 16.

		<b>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</b> 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
		<b>POST INSTALLATION DETAILS</b>  <b>PIPE POST</b>	
DATE EFFECTIVE:	07/01/2022	903.03BP	SHEET NO.
DATE PREPARED:	4/11/2022		5 OF 16