

### NOTES

FOR DISC BEARINGS, SEE SPECIAL PROVISIONS.

ALL BEARING PLATES SHALL BE AASHTO M270 GRADE 50W OR GRADE 50.

AT ALL POINTS OF SUPPORT, NUTS FOR ANCHOR BOLTS SHALL BE FINGER-TIGHTENED PLUS AN ADDITIONAL 1/4 TURN. THE THREAD OF THE NUT AND BOLT SHALL THEN BE BURRED WITH A SHARP POINTED TOOL.

WHEN WELDING THE SOLE PLATE TO THE GIRDER, USE TEMPERATURE INDICATING WAX PENS, OR OTHER SUITABLE MEANS, TO ENSURE THAT THE TEMPERATURE OF THE BEARING DOES NOT EXCEED 250°F. TEMPERATURES ABOVE THIS MAY DAMAGE THE TFE OR URETHANE DISC.

AFTER BEARING ASSEMBLY IS IN PLACE AND ANCHOR BOLTS HAVE BEEN FINALLY POSITIONED, THEY SHALL BE GROUTED IN PLACE AS SHOWN.

THE CLOSURE PLATE, GROUT PIPE, AND STANDARD PIPE FOR THIS ASSEMBLY NEED NOT BE GALVANIZED.

SOLE PLATES SHOULD BE WELDED TO GIRDER FLANGES AND ANCHOR BOLTS SHOULD BE GROUTED BEFORE FALSEWORK IS PLACED.

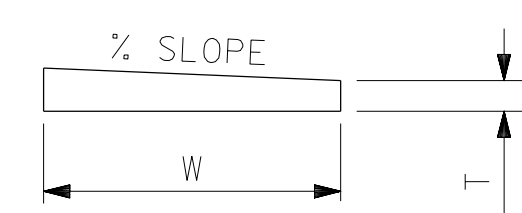
ALL SURFACES OF BEARING PLATES SHALL BE SMOOTH AND STRAIGHT.

FOR ATTACHMENT OF THE STAINLESS STEEL SHEETS TO THE STEEL SOLE PLATE AND GUIDE BARS, AS WELL AS THE TOP AND SIDE PTFE SHEETS TO THE STEEL UPPER BEARING PLATE, SEE SPECIAL PROVISIONS.

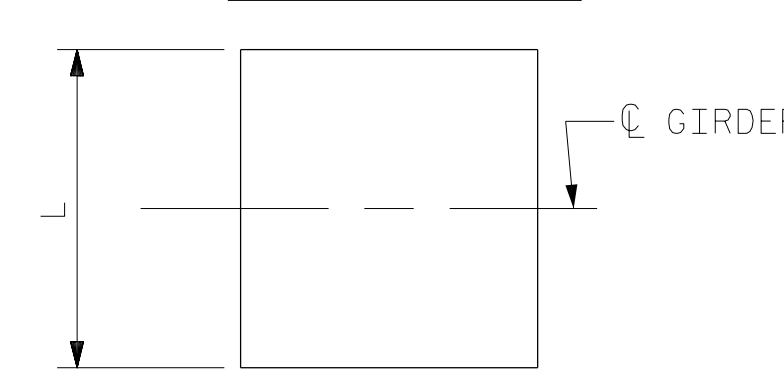
FOR THERMAL SPRAYED COATINGS (METALLIZATION), SEE SPECIAL PROVISIONS.

THE MINIMUM ROTATIONAL CAPACITY FOR ALL BEARINGS SHALL BE 0.02 RADIAN.

INCREASING STATIONS →



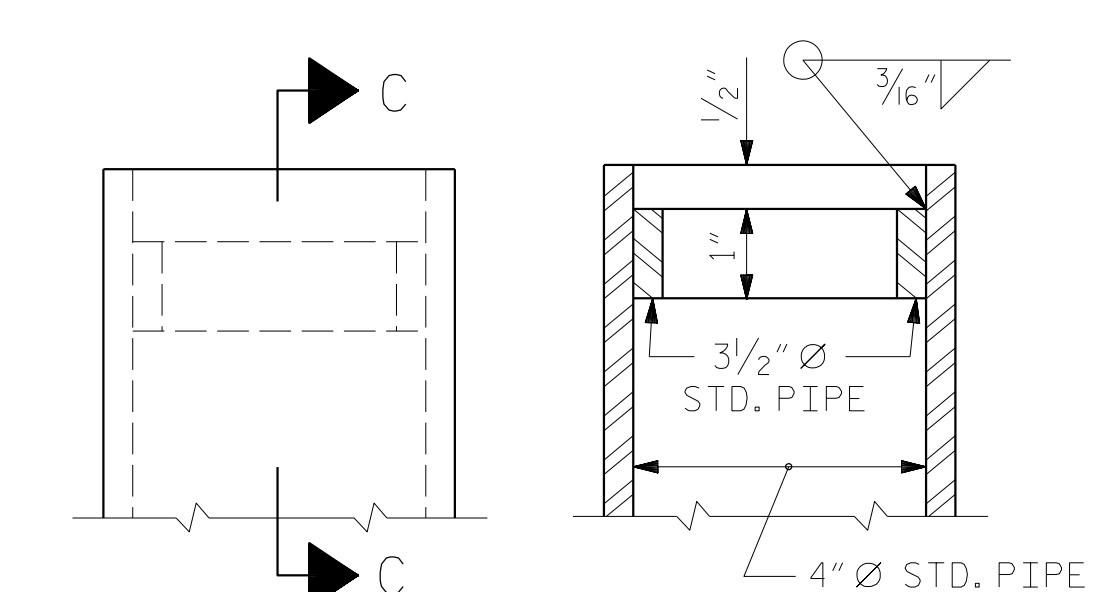
ELEVATION



PLAN

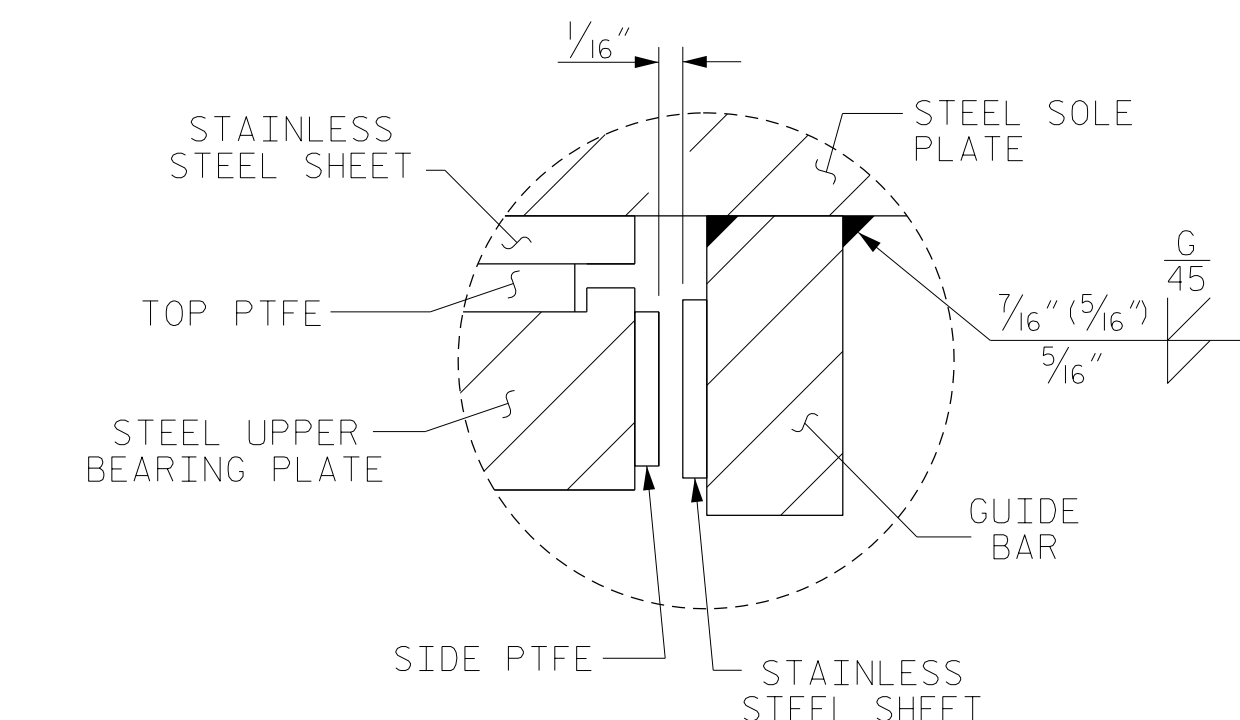
NOTE:  
DIMENSIONS "W" AND "T" SHALL BE DETERMINED BY THE BEARING MANUFACTURER.

### SOLE PLATE DETAILS

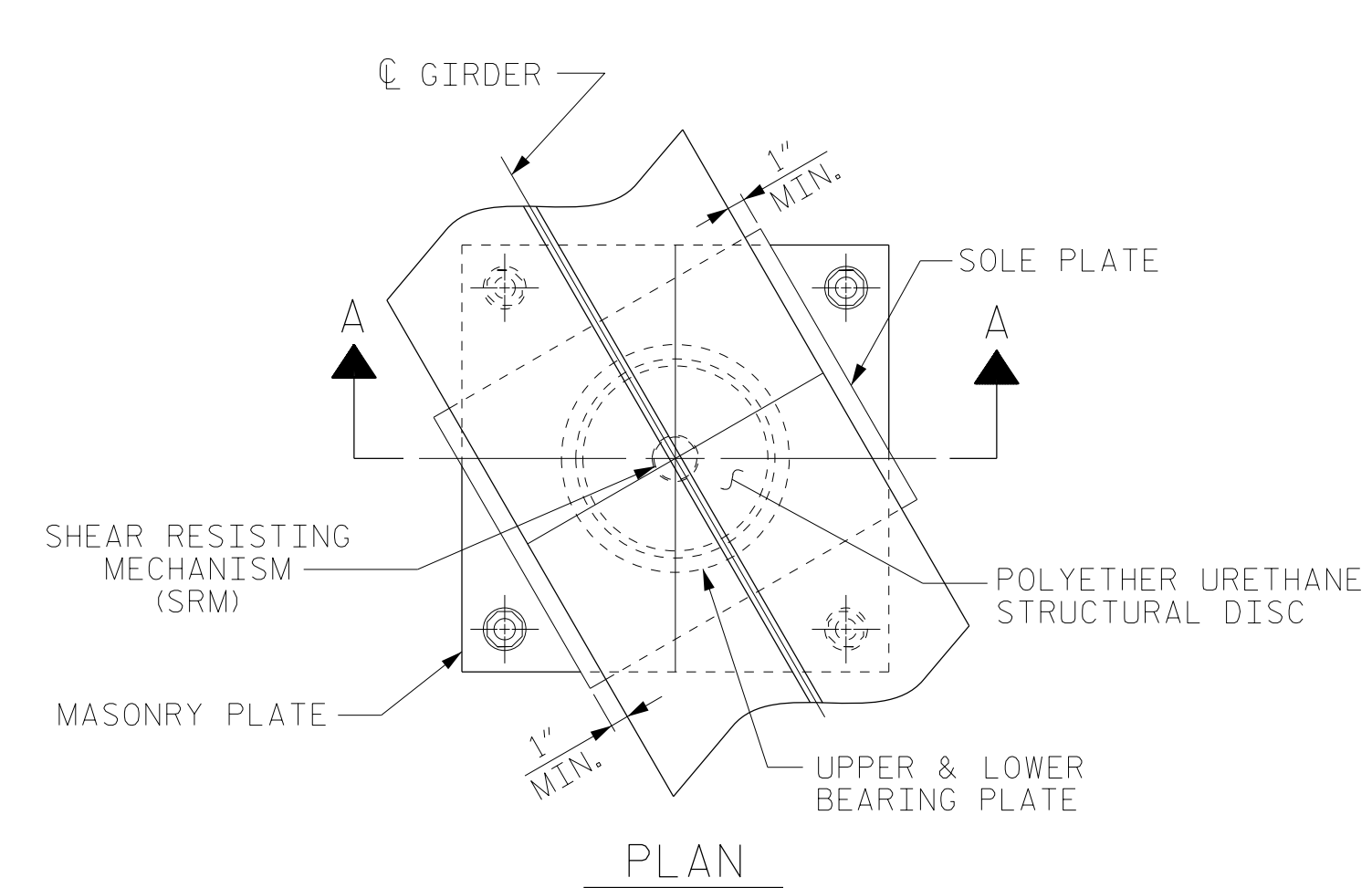


SECTION C-C

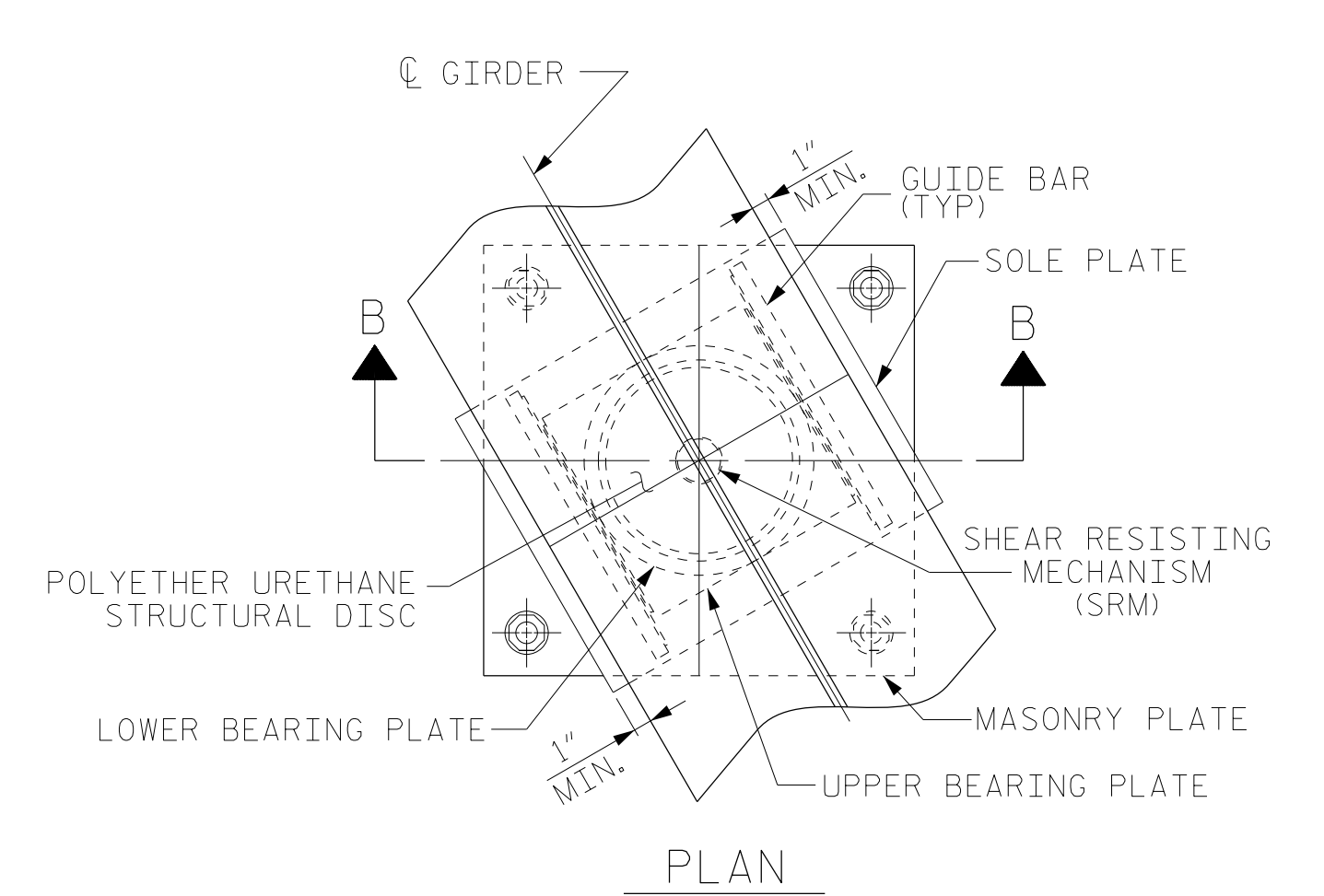
### DETAIL "A"



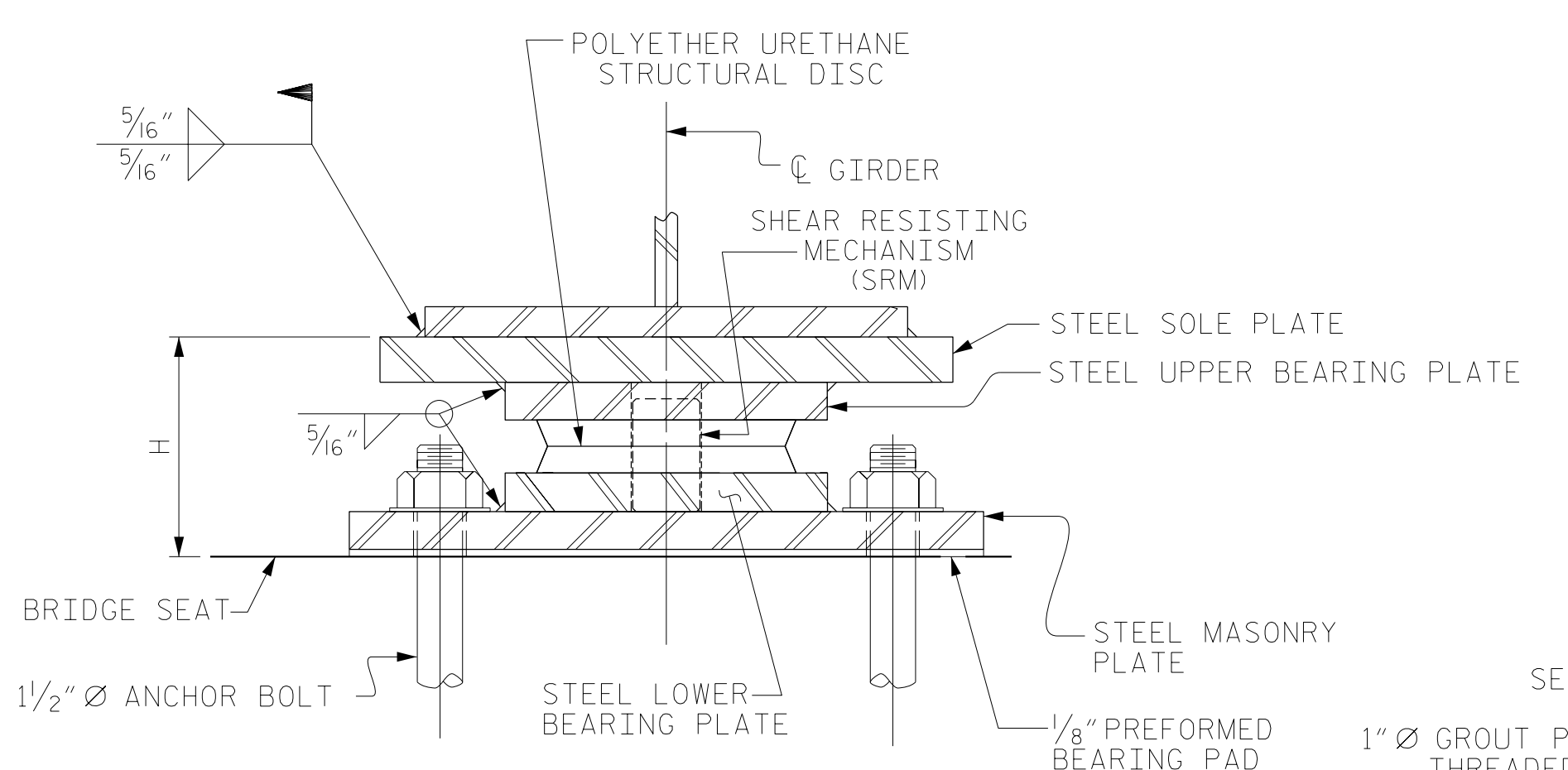
DETAIL "B"



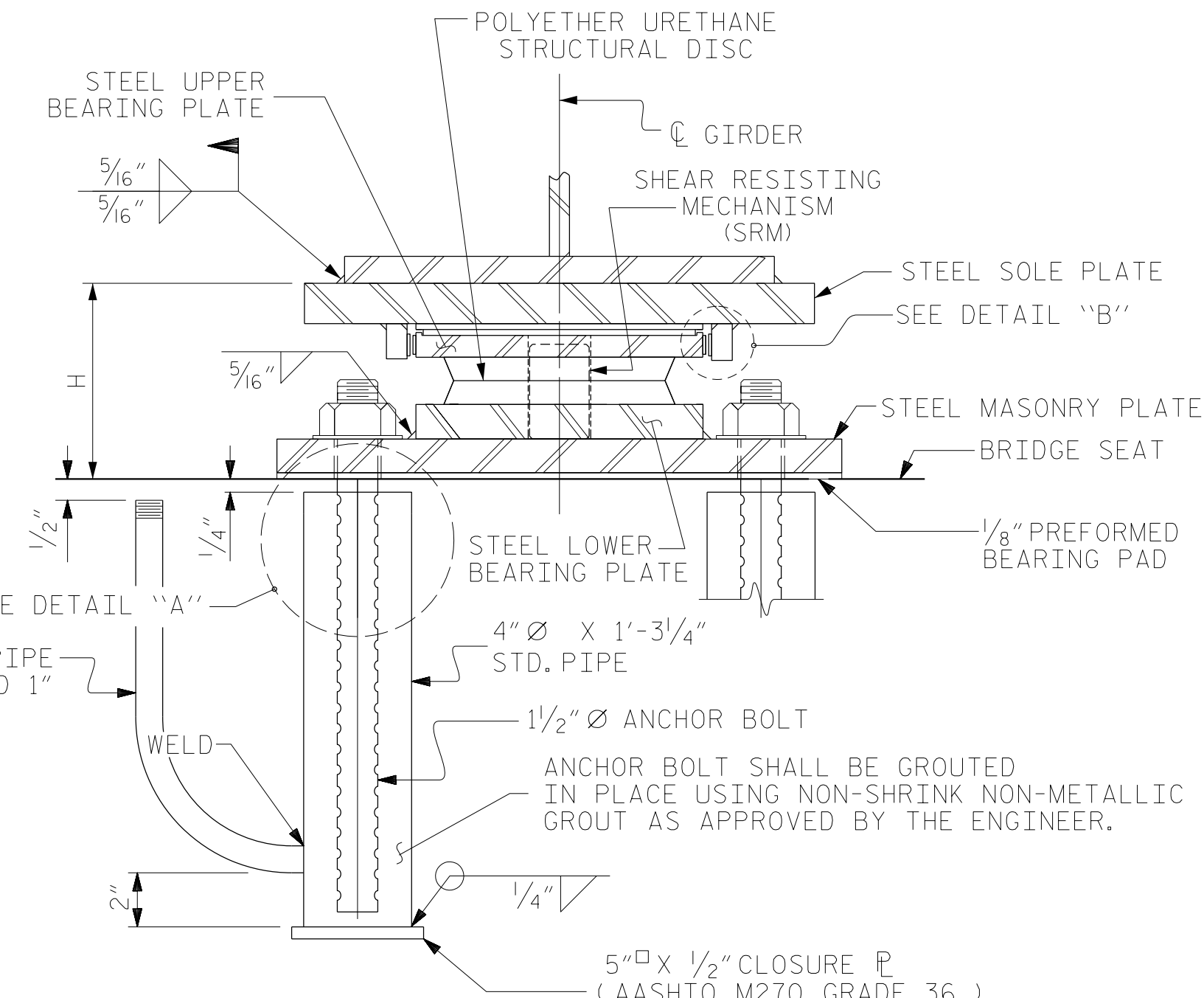
PLAN



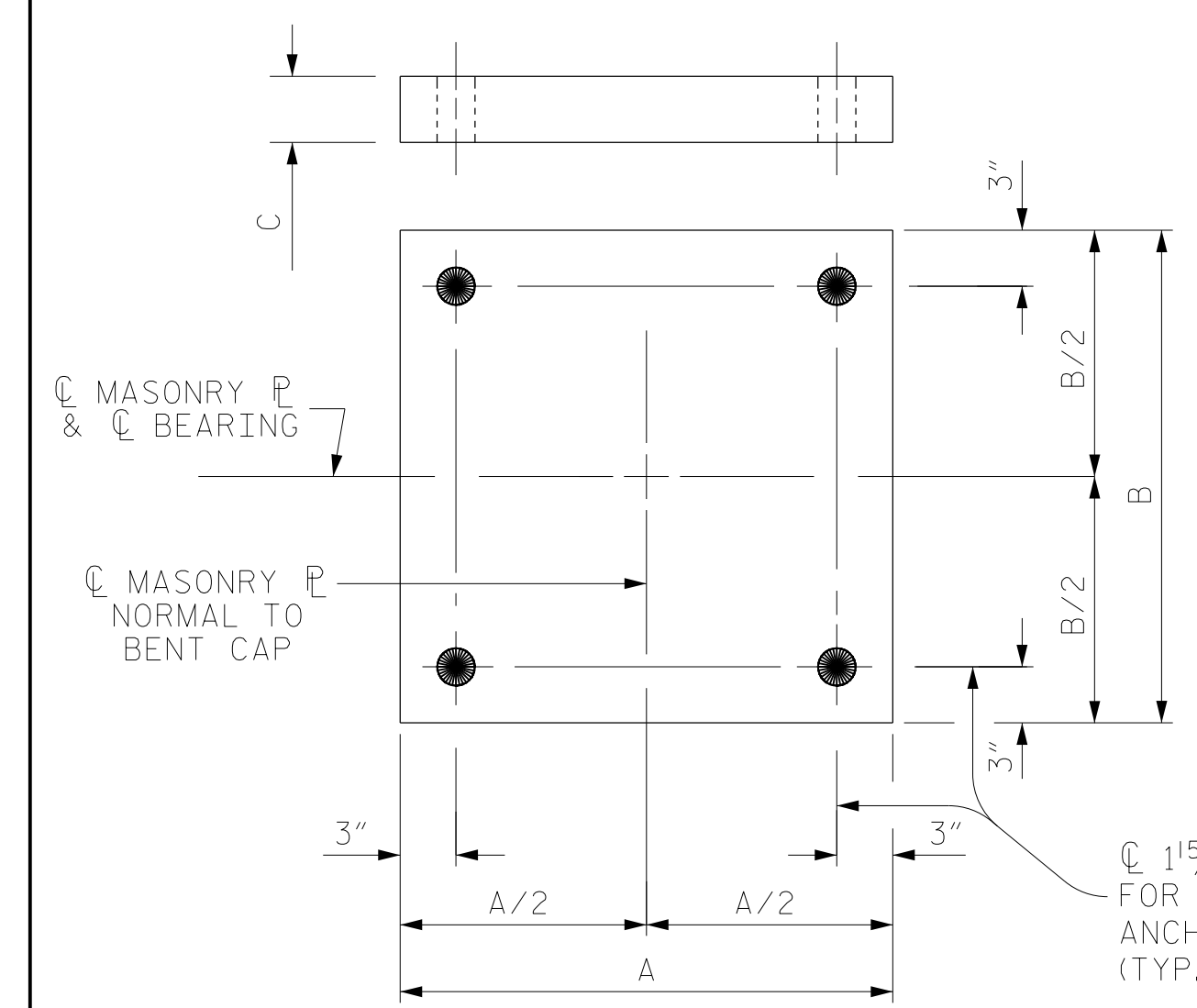
PLAN



SECTION A-A  
DB2, FIXED



SECTION B-B  
DB1 AND DB3, EXP.



PLAN  
MASONRY PLATE DETAILS

PLATE SETTING DATA (EXPANSION DISC BEARINGS)				
LOCATION	TEMPERATURE AT TIME OF SETTING			*
	45° F	60° F	90° F	
END BENT 1	-5/16"	0"	5/8"	-1 1/16"
END BENT 2	-1/4"	0"	1/2"	-1/2"

\* CORRECTION FOR END ROTATION DUE TO WEIGHT OF SLAB AND COMPOSITE DEAD LOAD.

### TEMPERATURE SETTING DETAIL

DESIGNATIONS		LOCATION	NUMBER OF BEARINGS	DIMENSIONS				TOP SLOPE (%)	SOLE PLATE L (IN.)	LOADS AND MOVEMENT				
BEARINGS	MASONRY PLATE			BEARING H (IN.)	MASONRY PLATE A (IN.)	MASONRY PLATE B (IN.)	MASONRY PLATE C (IN.)			UNFACTORED VERTICAL LOAD (KIPS)		FACTORED HORIZONTAL LOAD (KIPS)	ONE-WAY MOVEMENT (IN.)	
								DC	DW	LL+IM				
DB1 (EXP.)	M1	END BENT 1	4	6 9/16"	28 1/2"	28 1/2"	3/4"	-0.50	30"	271	22	152	92	2/16"
DB2 (FIXED)	M2	BENT 1	4	8 7/16"	36"	36"	1 1/4"	-0.50	34"	807	66	328	259	0"
DB3 (EXP.)	M3	END BENT 2	4	5 5/16"	27"	27"	3/4"	-0.50	26"	160	13	137	61	1 3/16"

ASSEMBLED BY : TRM DATE : 08/2019  
 CHECKED BY : MAL DATE : 12/2019  
 DRAWN BY : TMG 08/13 REV. 12/17 MAA/THC  
 CHECKED BY : EXP 10/13

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STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

STANDARD  
 DISC BEARING  
 DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S7-20
2			4			TOTAL SHEETS 48

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED