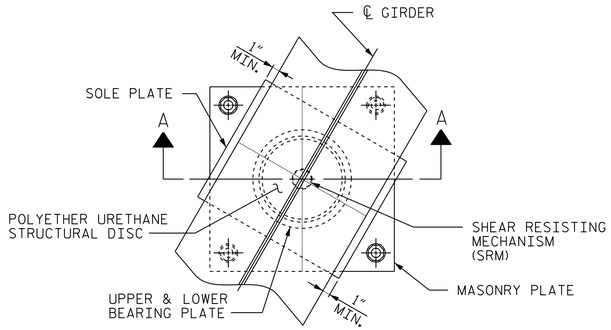
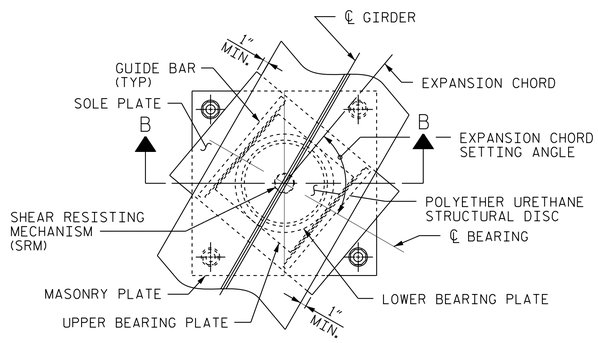
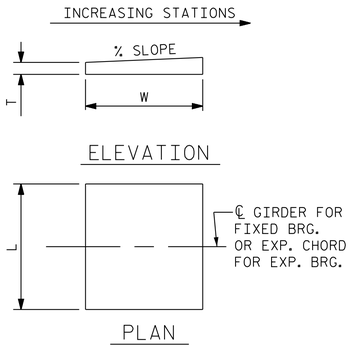


PLAN



PLAN



NOTE:
DIMENSIONS "L", "W", AND "T" SHALL BE DETERMINED BY THE BEARING MANUFACTURER. SET DIMENSION "L" SUCH THAT THE MINIMUM EDGE DISTANCE TO THE GIRDER FLANGE IS 1".

SOLE PLATE DETAILS

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.

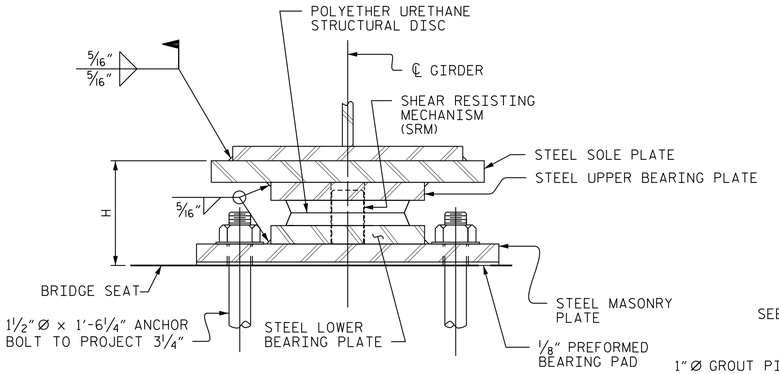
SOLE PLATES SHOULD BE WELDED TO GIRDER FLANGES AND ANCHOR BOLTS SHOULD BE GROUTED BEFORE FALSEWORK IS PLACED.

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.

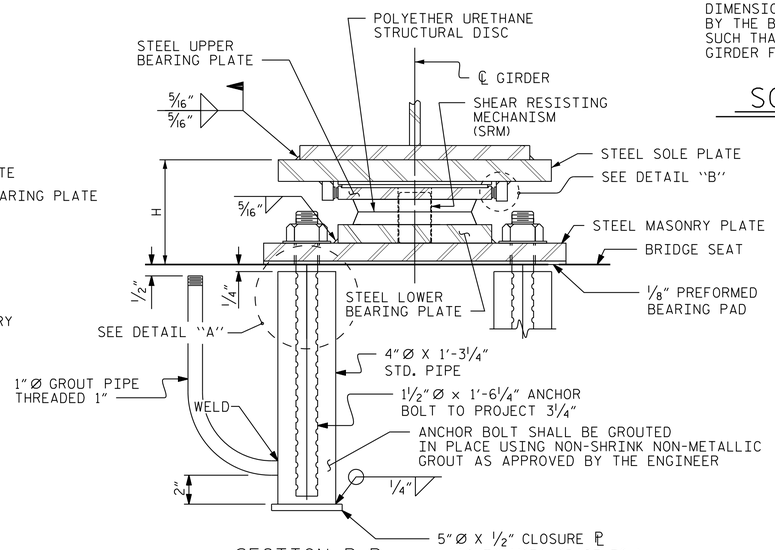
FOR THERMAL SPRAYED COATINGS (METALLIZATION), SEE SPECIAL PROVISIONS.

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



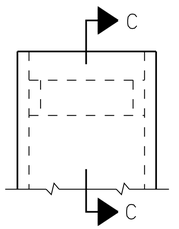
SECTION A-A

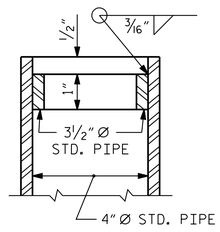
DB1, FIXED



SECTION B-B

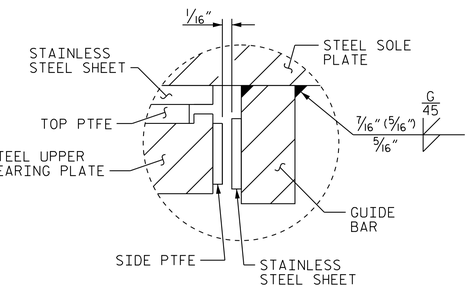
DB2, EXP.



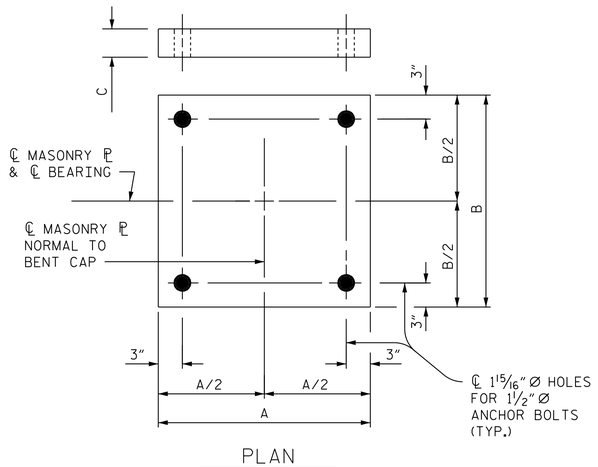


SECTION C-C

DETAIL "A"



DETAIL "B"



PLAN

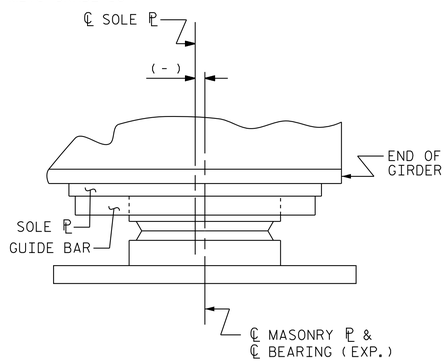
MASONRY PLATE DETAILS

PLATE SETTING DATA
(EXPANSION DISC BEARINGS)

LOCATION	TEMPERATURE AT TIME OF SETTING			*
	45° F	60° F	90° F	
END BENT 2	-¼"	0"	7/16"	1 15/16"

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

TEMPERATURE SETTING DETAIL



EXPANSION CHORD SETTING ANGLES
(EXPANSION DISC BEARINGS)

GIRDER	LOCATION
	END BENT 2
G1	77°-30'-53"
G2	77°-13'-12"
G3	76°-54'-37"
G4	76°-35'-04"
G5	76°-14'-29"
G6	75°-52'-46"

DIMENSIONS AND LOADS AND MOVEMENT

DESIGNATIONS		LOCATION	NUMBER OF BEARINGS	DIMENSIONS: BEARING	DIMENSIONS: MASONRY PLATE			DIMENSIONS: SOLE PLATE	LOADS AND MOVEMENT: UNFACTORED VERTICAL LOAD (KIPS)			LOADS AND MOVEMENT: FACTORED HORIZONTAL LOAD (KIPS)	LOADS AND MOVEMENT: ONE-WAY MOVEMENT (IN.)
BEARINGS	MASONRY ℙ			H (IN.)	A (IN.)	B (IN.)	C (IN.)	TOP SLOPE (%)	DEAD: DC	DEAD: DW	LIVE: LL+IM		
DB1 (FIXED)	M1	END BENT 1	6	9¼"	26½"	26½"	1"	6.00%	404	46	214	140	0
DB2 (EXP.)	M2	END BENT 2	6	9¾"	32½"	32½"	1"	0	386	47	195	133	1½"

PROJECT NO. U-5806

CABARRUS COUNTY

STATION: 15+75.56 -Y1-
27+06.95 -L-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

DISC BEARING DETAILS

NORTH CAROLINA PROFESSIONAL SEAL 033752 ENGINEER SETH A. DENNEY
DocuSigned by: Seth A. Denney E8EB154CC9ED410...
10/23/2017

NORTH CAROLINA PROFESSIONAL SEAL 040769 ENGINEER ANDREW L PHILLIPS
DocuSigned by: Andrew L Phillips 2BB69ABAD4004D3...
10/23/2017

Kimley»Horn
421 Fayetteville Street, Suite 600
Raleigh, NC 27601-1772
Phone (919) 677-2000
NC LICENSE # F-0102

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-22
1			3			TOTAL SHEETS
2			4			50

ASSEMBLED BY : D.D. LOWERY	DATE : 10/17	
CHECKED BY : A.L. PHILLIPS	DATE : 10/17	
DRAWN BY : TMG 08/13	REV.	
CHECKED BY : EKP 10/13	REV.	
	REV.	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

10/23/2017 K:\ROT_Structures_Bridge\NC\011036388 - -U-5806 FinalDesign\Cad\Dgn\022_U-5806_B001.dgn

STD. NO. DB1