



**ASSUMES 60° F AT SETTING WITH A MAXIMUM 60° F TEMPERATURE CONTRACTION AND 60° F EXPANSION. ADJUST OFFSET FOR AMBIENT TEMPERATURE DURING BEARING SETTING.

DISC BEARINGS REQUIRED AT PIERS 15 AHD., 16 & 17 BK.			
DISC BEARING DESIGN DATA PER BEARING			
ALL LOADS IN KIPS	PIER 15 AHD.	PIER 16	PIER 17 BK.
TRANSVERSE HORIZONTAL FORCE	57	131	74
LONGITUDINAL HORIZONTAL FORCE	-	44	-
TRANSVERSE EARTHQUAKE FORCE	27	142	45
LONGITUDINAL EARTHQUAKE FORCE	-	214	-
TOTAL REACTION LOAD	219	946	335
DEAD LOAD	134	735	235
LIVE LOAD + IMPACT	85	211	100
CONTRACTION CAPACITY **	0.74"	-	1.00"
EXPANSION CAPACITY **	0.74"	-	1.00"
"H" (AT C BEARING)	6"	6"	6"
MASONRY PLATE L (MIN.)	13"	25"	16"
MASONRY PLATE W (MIN.)	13"	25"	16"
NUMBER OF BEARINGS	6	6	6

DISC BEARING NOTES

- THIS DRAWING IS A SCHEMATIC OF THE REQUIRED DISC BEARINGS. MANUFACTURER IS RESPONSIBLE FOR THE DESIGN OF THE BEARING DEVICES, INCLUDING THE MASONRY PLATES AND REQUIRED SHEAR CONNECTORS. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL.
- PROVIDE EACH BEARING ASSEMBLY TO ACCOMMODATE THE CONTRACTION AND EXPANSION MOVEMENTS SHOWN. SHOW THE PROPER INSTALLED POSITION OF ALL PLATES WITH RESPECT TO THE DISC ELEMENT AND SETTING TEMPERATURE ON THE SHOP DRAWINGS. THE POSITIVE AND NEGATIVE MOVEMENT AND OFFSETS GIVEN ARE RELATIVE TO THE PROJECT STATIONING.
- DESIGN BEARINGS TO PROVIDE A TOTAL ROTATION CAPACITY OF 0.015 RADIAN. THESE CAPACITIES INCLUDE AN ALLOWANCE FOR UNCERTAINTY OF 0.005 RADIAN.
- DESIGN AND CONSTRUCT BEARING ASSEMBLIES TO PERMIT REMOVAL OF BEARING ELEMENTS AND SLIDING SURFACES FOR REPAIR OR REPLACEMENT. SUGGESTED DETAILS FOR THIS ALLOWANCE HAVE BEEN PROVIDED BUT THE MANUFACTURER MAY SUBMIT ALTERNATE DETAILS. THE DISC ELEMENT SHOWN IS ASSUMED TO INCLUDE THE DISC, SHEAR RESISTING MECHANISM AND THE BOTTOM SLIDING SURFACE. REPAIR OR REPLACEMENT OF THE BEARINGS IS ACCOMPLISHED BY VERTICALLY JACKING THE BRIDGE NO MORE THAN 1/2" AT EACH PIER.
- BEARING RETENTION BAR IS DESIGNED TO HOLD THE LOWER BEARING DISC IN PLACE DURING SERVICE AND TO BE REMOVED SO THE BEARING DEVICE CAN SLIDE TOWARDS THE FACE OF THE BENT TO FACILITATE REPAIR OR REPLACEMENT. MASONRY PLATE MUST BE CAST INTO CONCRETE BENT CAP SUCH THAT THE RETENTION BAR IS FACING OUT.
- BEARINGS ARE TO BE SET LEVEL. UPPER BEARING PLATE MAY BE BEVELED TO ALLOW FOR LEVEL SETTING.
- MASONRY PLATE SHALL BE CAST INTO CONCRETE BENT CAP.
- PLATE DIMENSIONS GIVEN ARE ESTIMATED DIMENSIONS.
- NUMBER, SIZE AND SPACING OF SHEAR CONNECTORS ARE DETERMINED BY THE BEARING MANUFACTURER.
- DISC BEARINGS ARE TO BE PAID FOR AS 581-1000, POT BEARING.
- HORIZONTAL FORCES ARE IN ADDITION TO DEAD LOAD FRICTION FORCE.

BRIDGE NO. 1

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GEORGIA
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DISC BEARING DETAILS
SPRING STREET VIADUCT OVER
CSX TRANSPORTATION
FULTON COUNTY
BHNLB-9073-00(016)
BRNLB-9073-00(018)

SCALE: NO SCALE JULY 2013

DATE	REVISIONS

DRAWING NO. 35 - 052	DESIGNED KAK	CHECKED BKA/GBL	REVIEWED WMD/DLC
BRIDGE SHEET 52 OF 79	DRAWN TBS	DESIGN GROUP SWW	APPROVED BFR