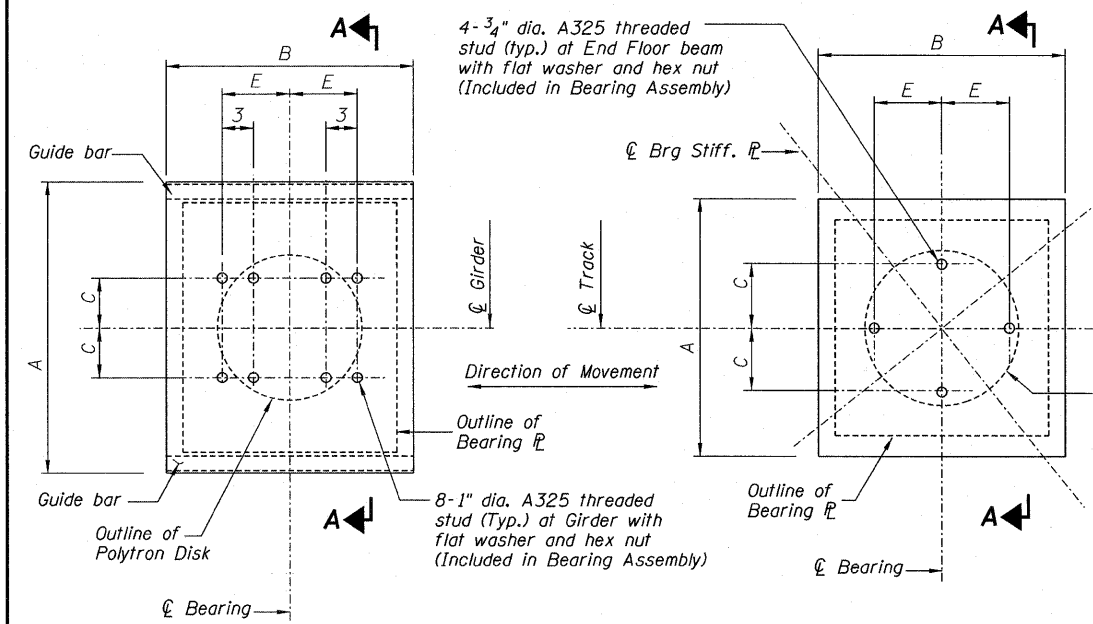
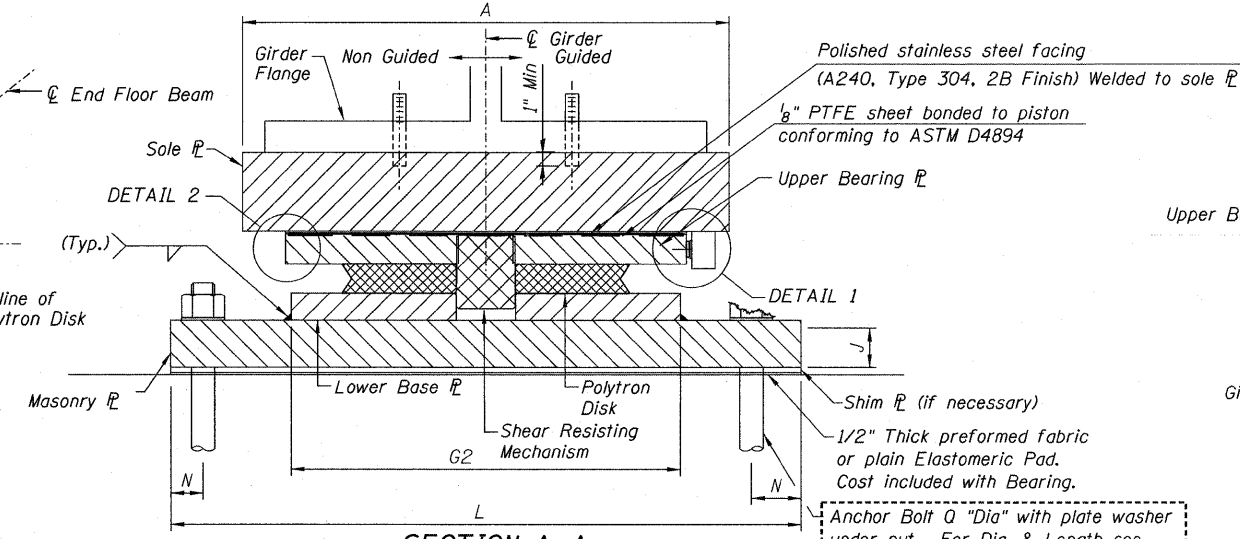


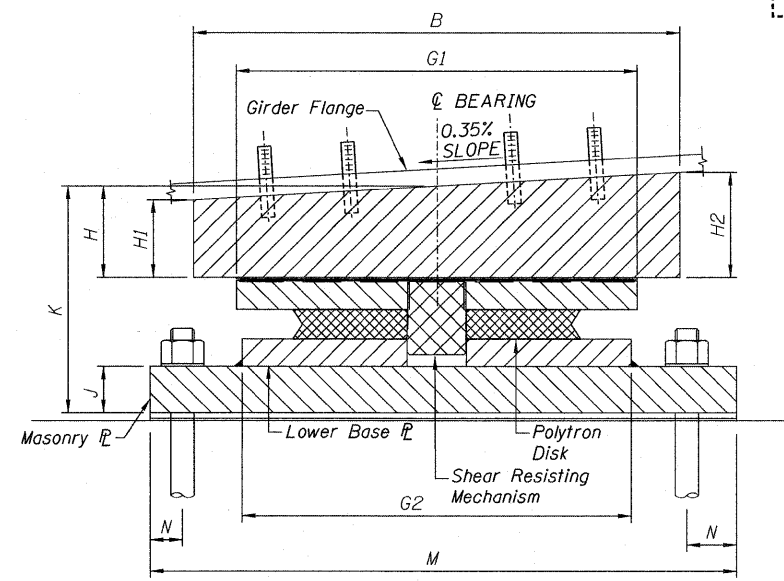
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



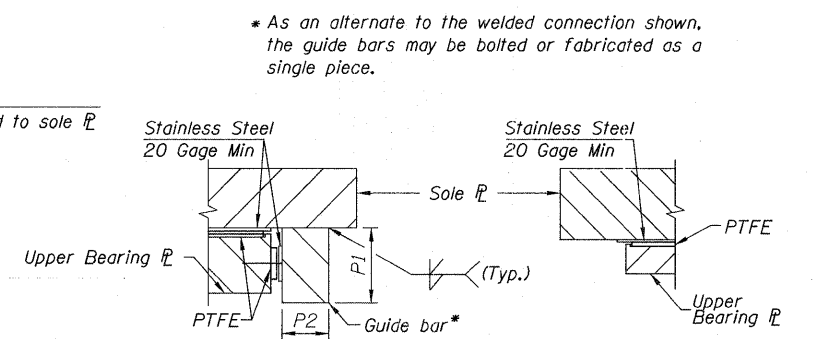
SOLE PLATE PLAN



SECTION A-A



SECTION B-B

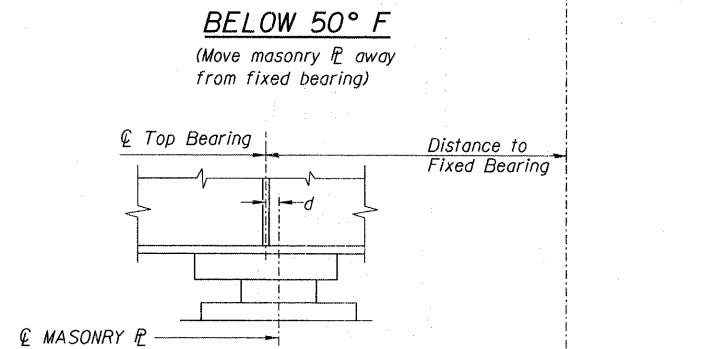
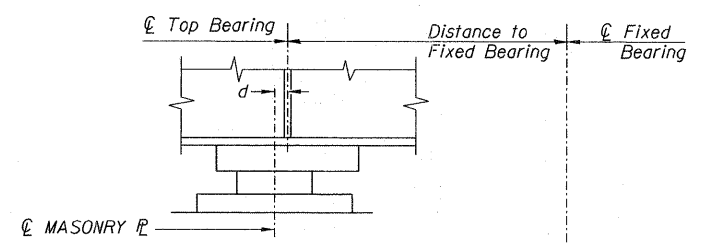


DETAIL 1

DETAIL 2

(Guided Bearings for main Through Girders at Abutments to have guide bars)

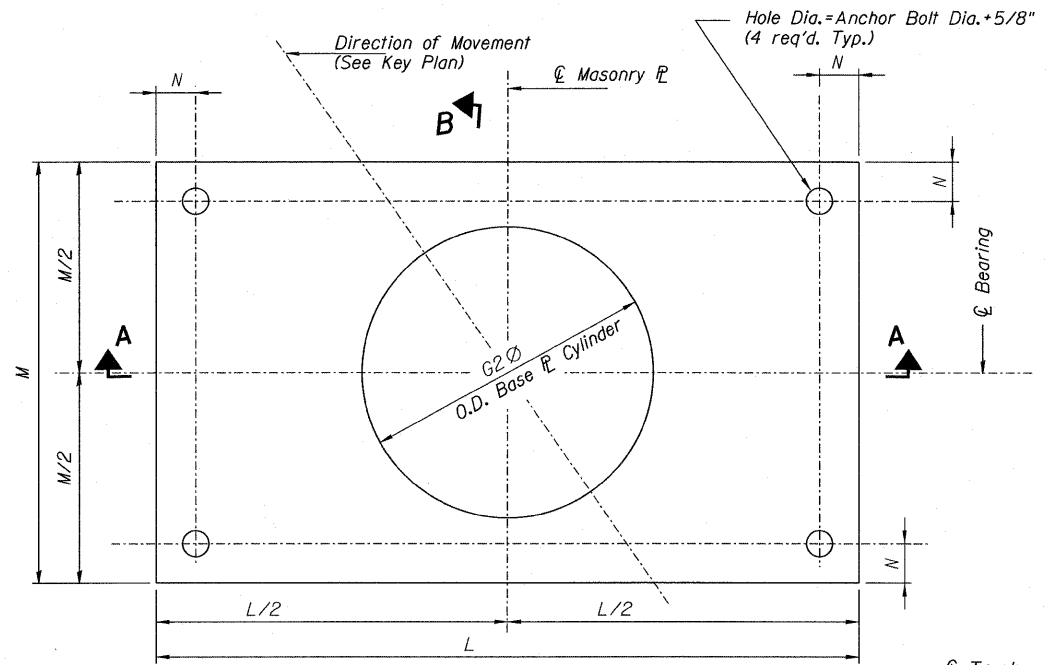
(Non-guided Bearings for end floor beams do not have guide bars)



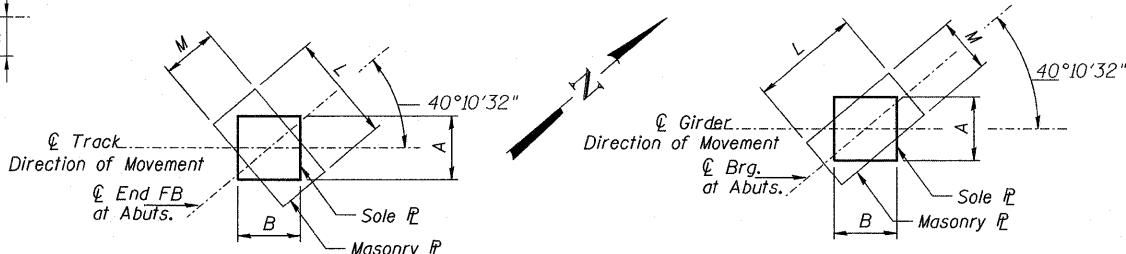
SETTING ANCHOR BOLTS AT EXPANSION BEARINGS

NOTE: $d = \frac{1}{8}$ " per each 100' of expansion for every 15°F temperature change from the normal temperature of 50°F.

- N.I.C. NOTES:
- See Sheet No. -- for Anchor Bolt installation.
 - Anchor Bolts, Nuts and Washers shall be stainless steel.
 - All Structural Steel for Bearings shall be ASTM A572 Grade 42.
 - Bearings shall conform to the Multi-Rotational Disc Bearing section of the 2010 AREMA Code.
 - Anchor bolts shall be cast with abutment. Masonry plates may be adjusted when setting girder and bolts tightened after final location is determined.



MASONRY PLATE PLAN



BEARING LAYOUT AT END FLOOR BEAM LOCATION

BEARING LAYOUT AT GIRDER LOCATION

SOLE PLATE AND MASONRY PLATE KEY PLAN

HLMR BEARING, GUIDED & NON-GUIDED EXPANSION PLAN

BEARING LOCATION	VERT. LOAD (k)	HORZ. LOAD (k)	ROTATION (rad)	A	B	C	E	G1	G2	H	H1	H2	J	K	L	M	N	P1	P2	ANCHOR BOLT O "DIA." x Length	PLATE WASHER
E. & W. Abuts. - Girders	1265	127	0.015	2'-7 1/4"	2'-4 1/4"	8"	6 1/2"	2'-1 1/4"	2'-1"	4 15/16"	4 7/8"	5"	3"	1'-1 1/16"	3'-4 1/2"	2'-6"	2 5/8"	2 3/8"	1 1/2"	1 1/2"x1'-6"	3"x 3"x 5/16"
E. & W. Abuts. & Pier - End Floor Beams	500	50	0.015	1'-10"	1'-6 5/8"	5"	5"	1'-3 7/8"	1'-3 5/16"	2 15/16"	2 7/8"	3"	2 3/4"	9 9/16"	2'-5 1/2"	1'-6"	1 3/4"			1 1/4"x1'-0"	2 3/4"x2 3/4"x 5/16"

EXPANSION BEARING DATA

DESIGNED - KJH
CHECKED - MGB
DRAWN - RJ
CHECKED - MGB

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 11 13 SHEETS	F.A.P RTE. 330	SECTION 2010-074-F	COUNTY COOK	TOTAL SHEETS 15	SHEET NO. 13
	CONTRACT NO. 60L60			DATE: 08/12/10 ILLINOIS FED. AID PROJECT	

HLMR EXPANSION BEARINGS
STRUCTURE NO. 016-6201