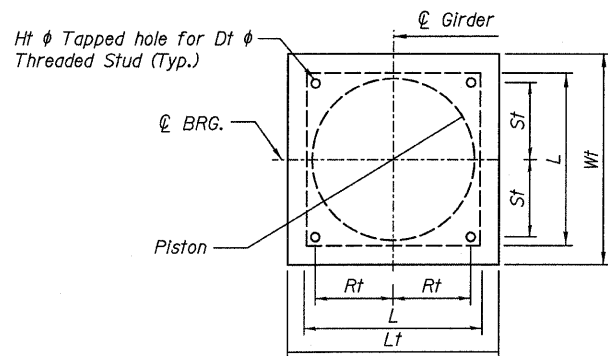


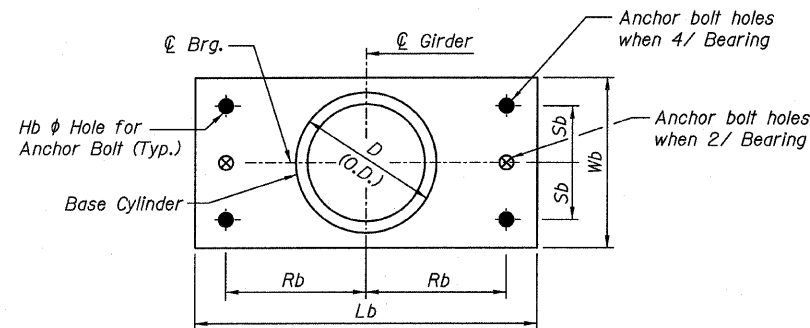
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES:

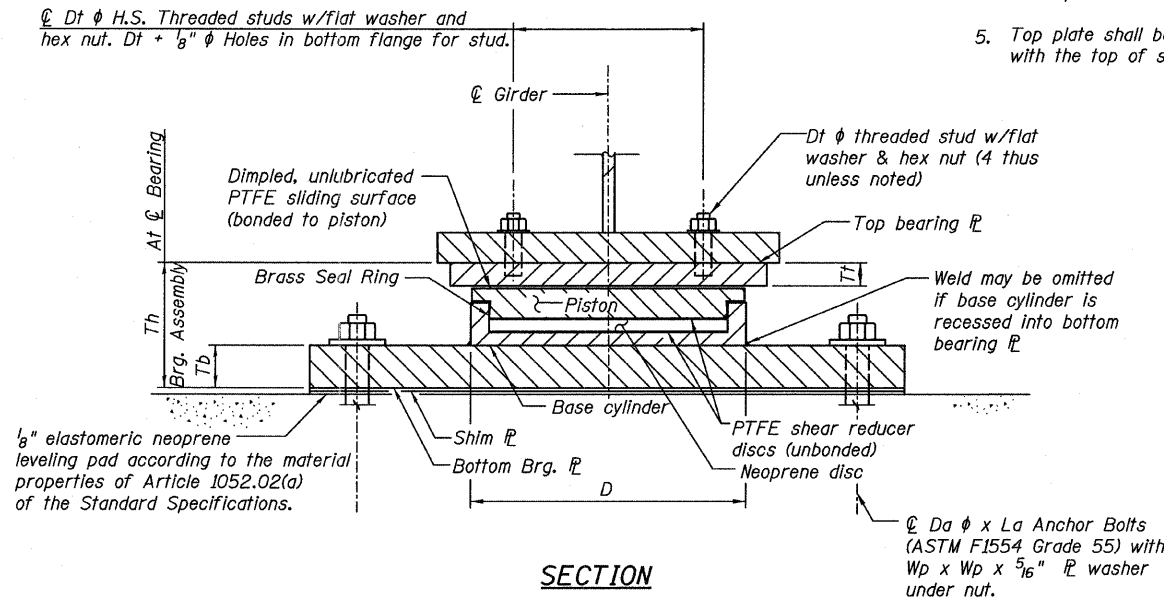
- All structural steel for the top and bottom bearing plates shall conform to the requirements of AASHTO M 270 Grade 50, unless otherwise noted.
- Anchor bolts shall be F1554, Gr. 55.
- The top and bottom bearing plates, 1/8" elastomeric neoprene leveling pad, adjusting shims, threaded studs with washers, and other items required for the bearing are furnished under a separate contract. Installation of these items is included in the cost of Erecting HLMR Bearings of the type specified.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- Top plate shall be beveled to match the slope of the girder flanges. Work this sheet with the top of steel elevation sheets.



TOP BEARING P - PISTON PLAN



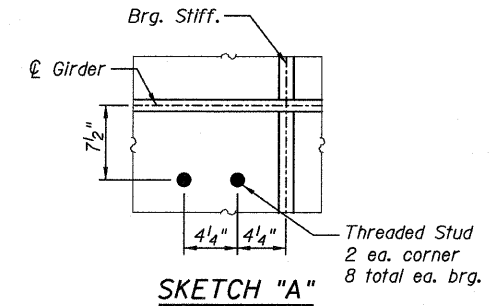
BOTTOM BEARING P AND
BASE CYLINDER PLAN



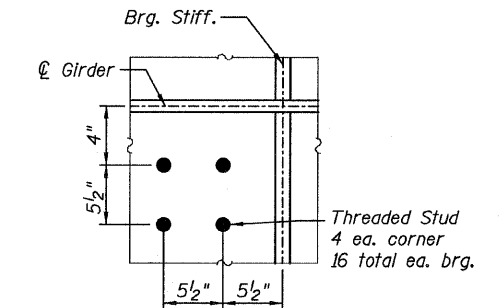
SECTION

BILL OF MATERIAL

ITEM	UNIT	TOTAL
High Load Multi-Rotational Bearings, Non-guided Expansion, 150 kips (Erect Only)	EACH	34
High Load Multi-Rotational Bearings, Non-guided Expansion, 800 kips (Erect Only)	EACH	4
High Load Multi-Rotational Bearings, Non-guided Expansion, 1500 kips (Erect Only)	EACH	4
Anchor Bolts, 1"	EACH	68
Anchor Bolts, 1 1/2"	EACH	16
Anchor Bolts, 2"	EACH	16



SKETCH "A"



SKETCH "B"

BEARING SCHEDULE

Type	Vertical Capacity (kips)	Lateral Capacity (kips)	Quantity Each	Pier (R= Ramp)	Girders	Total Required Movement		D	L	Th	Top Plate / Bearing Assembly								Masonry Plate					Anchor Bolts			
						Longitudinal	Transverse				Wf	Lt	Tt	Dt	Ht	Rt	St	Wb	Lb	Tb	Rb	Sb	Hb	Qty per Brg.	Da	La	Wp
HLMR, Non-Guided Expansion	150	-	12	R1 & R4 Abut.	2-7	3"	2"	9 1/4"	9 1/4"	5 1/2"	11 3/4"	11 3/4"	1 1/2"	3 1/4"	7 1/8"	3 1/2"	4"	13"	24"	1 1/4"	10 1/4"	-	1 1/2"	2	1"	12"	2 1/4"
HLMR, Non-Guided Expansion	150	-	14	R2 & R3 Abut.	2-8	3"	2"	9 1/4"	9 1/4"	5 1/2"	11 3/4"	11 3/4"	1 1/2"	3 1/4"	7 1/8"	3 1/2"	4"	13"	24"	1 1/4"	10 1/4"	-	1 1/2"	2	1"	12"	2 1/4"
HLMR, Non-Guided Expansion	150	-	2	R1 & R4 Abut.	8	3"	2"	9 1/4"	9 1/4"	5 1/2"	11 3/4"	11 3/4"	1 1/2"	3 1/4"	7 1/8"	3 1/2"	4"	13"	26"	1 1/4"	11 1/4"	-	1 1/2"	2	1"	12"	2 1/4"
HLMR, Non-Guided Expansion	150	-	4	R1 thru R4 Abut.	12	3"	2"	9 1/4"	9 1/4"	6"	11 3/4"	11 3/4"	1 1/2"	3 1/4"	7 1/8"	3 1/2"	4"	13"	32"	1 1/4"	14"	-	1 1/2"	2	1"	12"	2 1/4"
HLMR, Non-Guided Expansion	150	-	2	R2 & R3	11	2"	2"	9 1/4"	9 1/4"	5 1/2"	11 3/4"	11 3/4"	1 1/2"	3 1/4"	7 1/8"	3 1/2"	4"	13"	24"	1 1/4"	10 1/4"	-	1 1/2"	2	1"	12"	2 1/4"
HLMR, Non-Guided Expansion	800	-	4	R1 thru R4 Brg. 2	Crosshead	3"	2"	19 1/2"	19 1/2"	10.205"	21 1/2"	21 1/2"	3"	1"	1 1/8"	Sketch A	Sketch A	22"	38"	2 1/2"	16 1/4"	8 1/4"	2"	4	1 1/2"	18"	3"
HLMR, Non-Guided Expansion	1500	-	4	R1 thru R4 Brg. 1	Crosshead	3"	2"	26 1/2"	26 1/2"	12.685"	28 1/4"	28 1/4"	4"	1"	1 1/8"	Sketch B	Sketch B	30"	42"	2 1/2"	17 1/2"	11 1/2"	2 1/2"	4	2"	24"	3 1/2"

HIGH LOAD MULTI-ROTATIONAL
BEARINGS NON-GUIDED EXPANSION
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - EKH, PK	REVISIONS		SHEET NO. 190	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
	CHECKED - AMD,	NAME	DATE		55					0711.2R & 1011.1BR	COOK	741	514
	DRAWN - EKH, PK				239 SHEETS					CONTRACT NO. 60999			
	CHECKED - AMD,				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
	DATE - 03/25/2011												