

**GUIDED EXPANSION BEARING TABLE - EB BRIDGE**

Bearing Location	HLMR Bearing Capacity (kips)	Vertical Design Load (kips)	Lateral Design Load (kips)	**Maximum Factored Ultimate (Strength) Design Rotation (Radians)	Total Required Movement (In.)	Bottom Bearing Plate			Top Bearing Plate							Anchor Bolt Size & Grade	Setting Angle "C" (Degrees)	Setting Angle "A" (Degrees)*		
						Tb (In.)	Lb (In.)	Wb (In.)	Tt (In.)	Lt (In.)	Wt (In.)	N (In.)	R (In.)	S (In.)	Th (In.)				L (In.)	Dia. (In.)
W. Abut. EB	250	179	36***	0.03	3 1/4	1 5/8	28	20	1 1/2	18	17	5	3 3/4	5	8 1/8	10	11 3/4	3/4" Diameter Grade 36	-0°-54'-02"	-2°-03'-07"
Pier 1 EB	550	523	105***	0.03	1 1/4	2 1/4	39	30	2 3/4	29	25	7	6	6	13 1/4	21	21 3/8	1 1/4" Diameter Grade 36	-1°-24'-43"	-1°-07'-17"
Pier 2 EB	550	525	105***	0.03	1 1/4	2 1/4	39	30	2 3/4	29	25	7	6	6	13 1/4	21	21 3/8	1 1/4" Diameter Grade 36	-1°-39'-45"	0
Pier 4 EB	550	484	97***	0.03	1 1/4	2 1/4	39	30	2 3/4	29	25	7	6	6	13 1/4	21	21 3/8	1 1/4" Diameter Grade 36	-1°-39'-45"	0
Pier 5 EB	550	546	110***	0.03	2 3/8	2 1/4	40	35	3	30	26	7	6	6	13 1/4	22	23 5/8	1 1/4" Diameter Grade 55	-1°-39'-45"	0

\*\* Includes rotation allowances for fabrication tolerances (0.005 radians) and installation uncertainties (0.005 radians)

\*\*\* The Lateral Design Loads are greater than 10% of the Vertical Design Loads. The Fabricator shall modify components of the bearings as required to meet the lateral load demands.

\* ∅ Girder Tangent to Movement Direction

**BILL OF MATERIAL**

Item	Unit	Total
High Load Multi-Rotational Bearings, Guided Expansion 250k	Each	6
High Load Multi-Rotational Bearings, Guided Expansion 550k	Each	24
Anchor Bolts, 1 1/4"	Each	96
Anchor Bolts, 3/4"	Each	24



USER NAME = has	DESIGNED - RDP	08/13	REVISED -
ESCA PROJECT NO. 1070.09	CHECKED - SHL	08/13	REVISED -
	DRAWN - DWH	08/13	REVISED -
PLOT DATE = 3/18/2014 1:35:26 PM	CHECKED - RDP	03/14	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXPANSION POT BEARING DETAILS - EB  
STRUCTURE NO. 026-0107**

SHEET NO. 71 OF 113 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	(26-3B-1, 3B-1(3))BR	FAYETTE	277	151
CONTRACT NO. 74175			ILLINOIS FED. AID PROJECT	