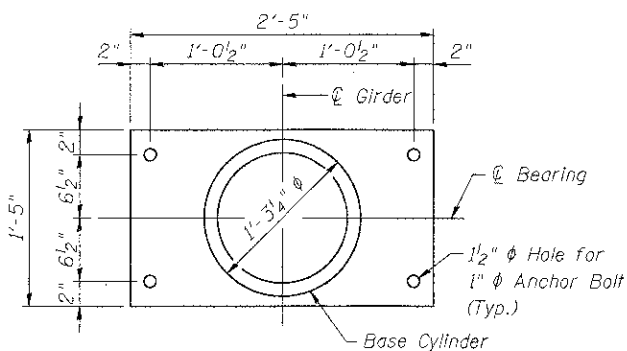
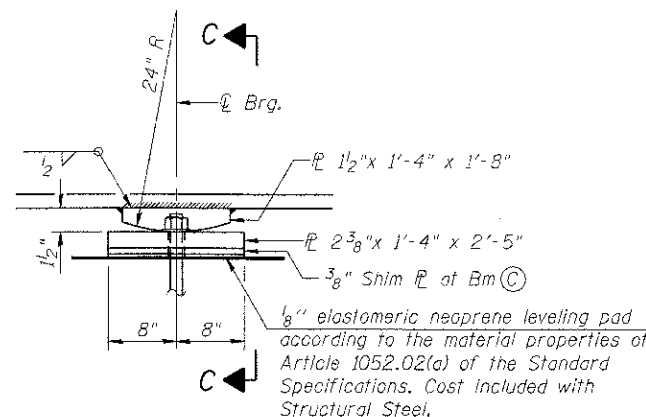


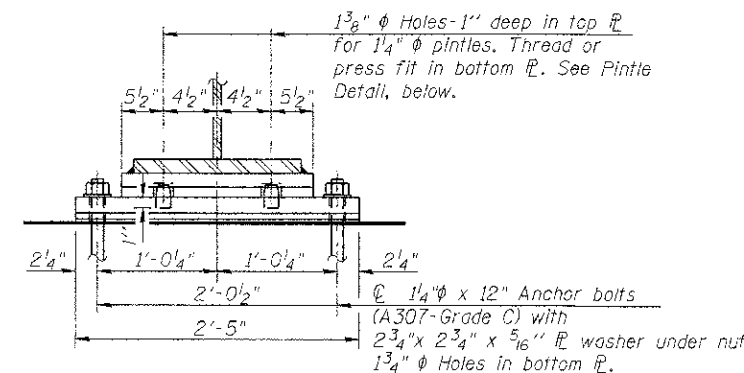
TOP BEARING P AND PISTON PLAN



BOTTOM BEARING P AND BASE CYLINDER PLAN



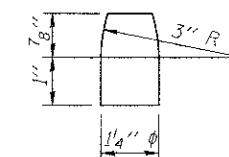
ELEVATION AT PIER 3



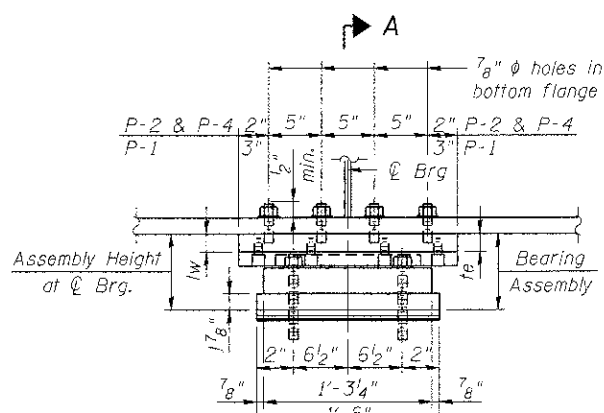
SECTION C-C

* As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.

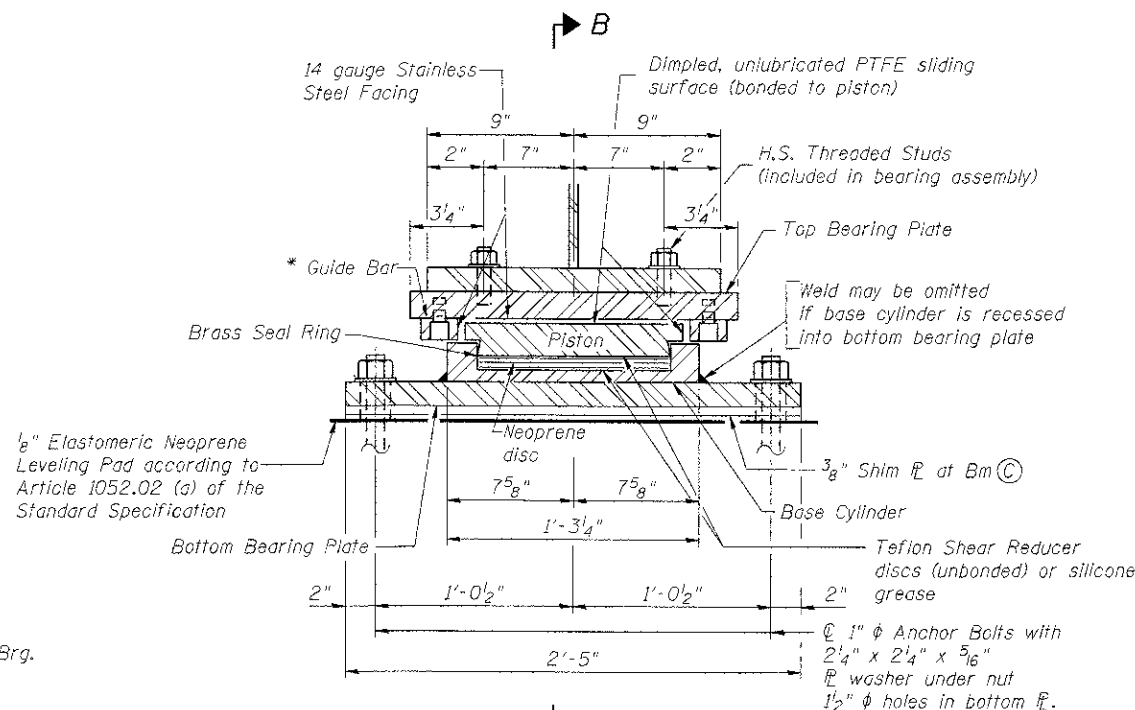
FIXED BEARING



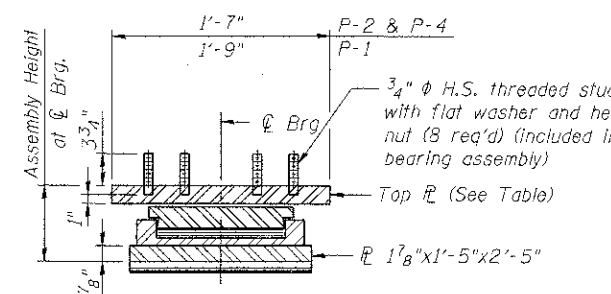
PINTLE



ELEVATION AT PIERS 1, 2 AND 4



SECTION A-A



SECTION B-B
(Guide Bar omitted for clarity)

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

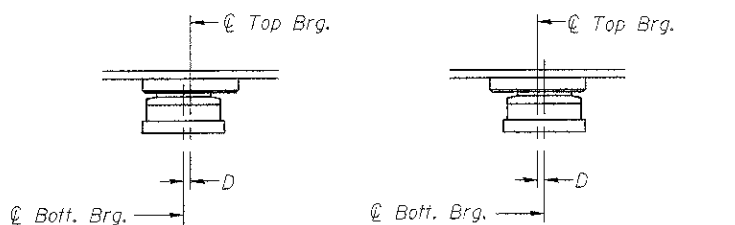
BILL OF MATERIAL

Item	Unit	Total
Furnishing High Load Multi-Rotational Bearings, Guided Expansion, 450K	Each	12
High Load Multi-Rotational Bearings, Guided Expansion, 450K (Erect Only)	Each	12
Anchor Bolts, 1 1/4"	Each	8
Anchor Bolts, 1"	Each	48

Pier	Bearing Data (LRFD)	
1	Vertical design load	430K
	Total required movement	3 5/8"
	Lateral design load (H _w)	86K
	Design Rotation (θ _w)	0.373°
2	Vertical design load	430K
	Total required movement	1 13/16"
	Lateral design load (H _w)	86K
	Design Rotation (θ _w)	0.417°
4	Vertical design load	430K
	Total required movement	1 13/16"
	Lateral design load (H _w)	86K
	Design Rotation (θ _w)	0.373°

Pier	t _w	t _e	Top Plate Size	Assembly Height at C of Brg.
1	2 1/8"	2 3/4"	2 3/4" x 1'-8 1/2" x 1'-9"	9 5/16"
2	2 1/4"	2 7/16"	2 7/16" x 1'-7" x 1'-8 1/2"	9 1/4"
4	2 13/16"	2 1/4"	2 13/16" x 1'-7" x 1'-8 1/2"	9 7/16"

Notes: The plates of the Bearing Assembly shall be AASHTO M270, Grade 50W.



BELOW 50°F.

ABOVE 50°F.

(Move bott. brg. away from fixed brg.) (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

DESIGNED	SSM
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

WB CHARLES J. MILLER ROAD BRIDGE

DATE: 7/23/12



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Illinois Professional Design Firm
184-001322

SHEET NO.	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NO. S-25	3860	09-00372-00-PW	McHENRY	252	148
S-41 SHEETS				CONTRACT NO. 63633	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					