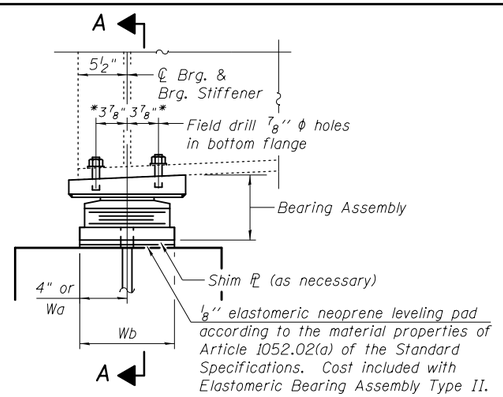
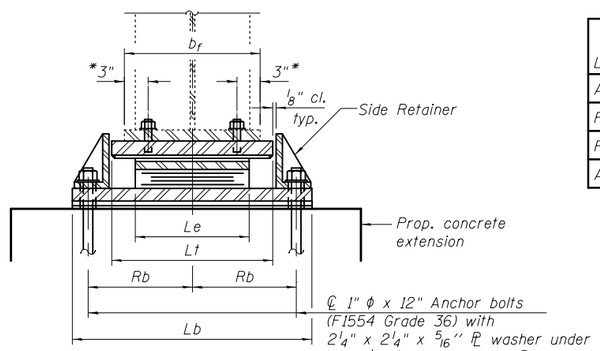
TYPE II ELASTOMERIC BEARING DESIGN DATA

Location	Girder slope	Bearing Orientation α	X1**	X2**	Y1**	Y2**	Elastomers and Steel Plates We	Le	Tp	Np	Ts	Ns	Te	Top Plate Tt	Wt	Lt	Bottom Plate Tb	Wb	Lb	br	Rb	Wa	v
Abut. 1	3.6%	0°	1'-0 1/8"	1'-0 1/8"	6 3/4"	6 3/4"	10"	14"	7/16"	6	1/8"	5	4 1/8"	1 15/16"	1'-0"	1'-4"	1"	1'-1 1/2"	2'-0 1/4"	12"	10 1/4"	4"	6 1/16"
Pier 3 N	3.3%	+5°55'37"	11 3/8"	1'-0 3/4"	7 15/16"	5 7/16"																6 1/8"	
Pier 6 N	3.5%	+12°42'16"	11"	1'-2 5/8"	10 15/16"	5 3/16"	10"	14"	7/16"	8	1/8"	7	5 1/4"	1 15/16"	1'-1"	1'-6"	1 3/8"	1'-4 1/2"	2'-2 1/4"	16"	11 1/4"	9/8"	7 3/16"
Abut. 2	-3.7%	-12°42'01"	1'-3 5/8"	11 15/16"	5 3/16"	11 3/8"	11"	16"	1/2"	7	1/8"	6	5 1/8"	2"	1'-2"	1'-8"	1 1/2"	1'-5"	2'-4 1/4"	18"	1'-0 1/4"	9 1/2"	7/8"

**Dimensions measured to corner of bottom plate, or theoretical corner where bottom plate is clipped.



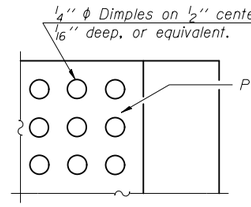
ELEVATION



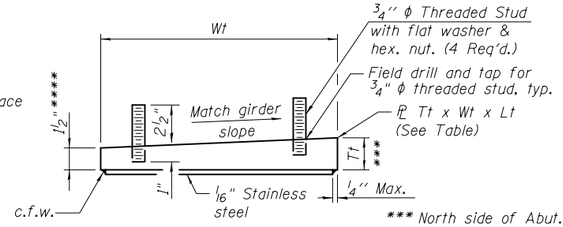
SECTION A-A

*Dimensions measured parallel to or at right angles to ℄ girders. See Bearing Orientation Plans.

TYPE II ELASTOMERIC EXP. BRG.



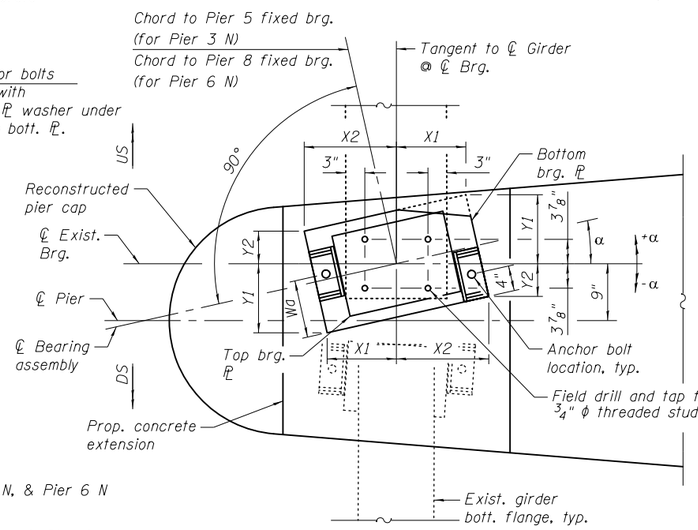
PLAN-PTFE SURFACE



TOP BEARING ASSEMBLY

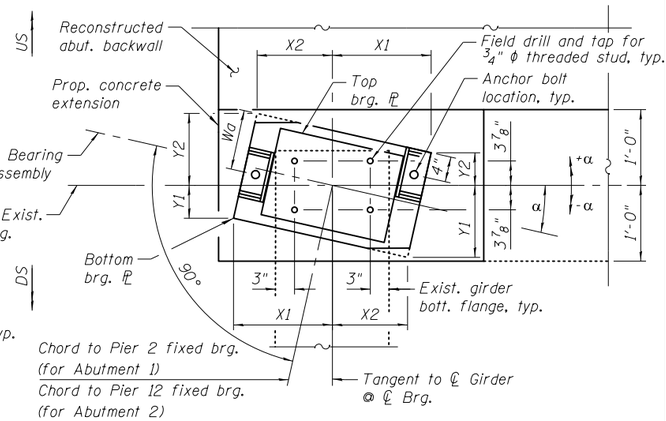
*** North side of Abut. 1, Pier 3 N, & Pier 6 N
East side of Abut. 2

**** South side of Abut. 1, Pier 3 N, & Pier 6 N
West side of Abut. 2



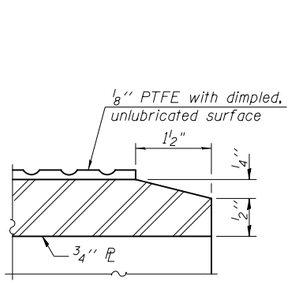
BEARING ORIENTATION PLAN

Pier 6 N shown, Pier 3 N similar

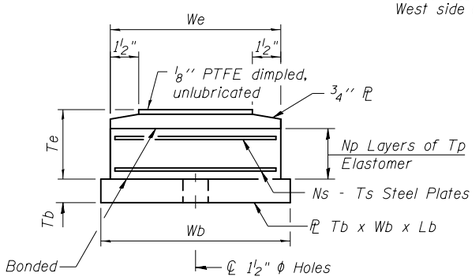


BEARING ORIENTATION PLAN

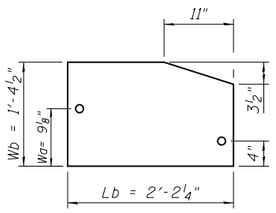
Abutment 2 shown, Abutment 1 similar



SECTION THRU PTFE

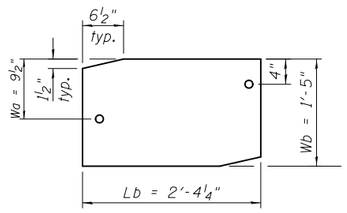


BOTTOM BEARING ASSEMBLY



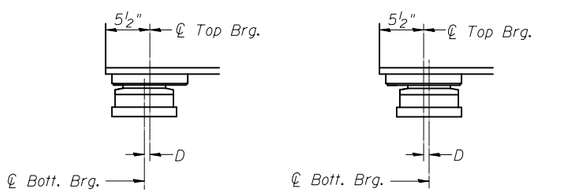
BOTTOM PLATE CLIP DETAIL

(Girders G1 & G4 at Pier 6N, 2 required)



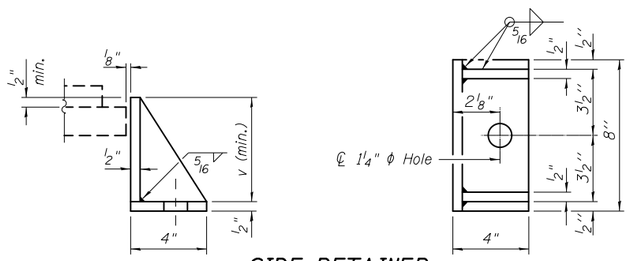
BOTTOM PLATE CLIP DETAIL

(Girders G1 thru G4 at Abutment 2, 4 required)



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.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	16
Anchor Bolts, 1"	Each	32

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after bearings are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

Cost of field drilling & tapping shall be included in the cost of Elastomeric Bearing Assembly, Type II.

See Sheet S-62 for Bearing Removal Details and Jacking Procedure.

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.

The Contractor shall field verify the slope of the existing girders prior to construction or ordering of materials.

Existing cross frame bolts shall not be disconnected without prior approval from the Engineer.

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbandainc.com

USER NAME =	DESIGNED - TL	REVISED -
	CHECKED - BAK	REVISED -
PLOT SCALE =	DRAWN - TL	REVISED -
PLOT DATE = 11/08/2012	CHECKED - BAK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPE II ELASTOMERIC BEARING DETAILS
STRUCTURE NO. 016-2437
SHEET NO. S-39 OF S-83 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2012-060-BR	COOK	285	202
		CONTRACT NO. 60V61		
	ILLINOIS FED. AID PROJECT			