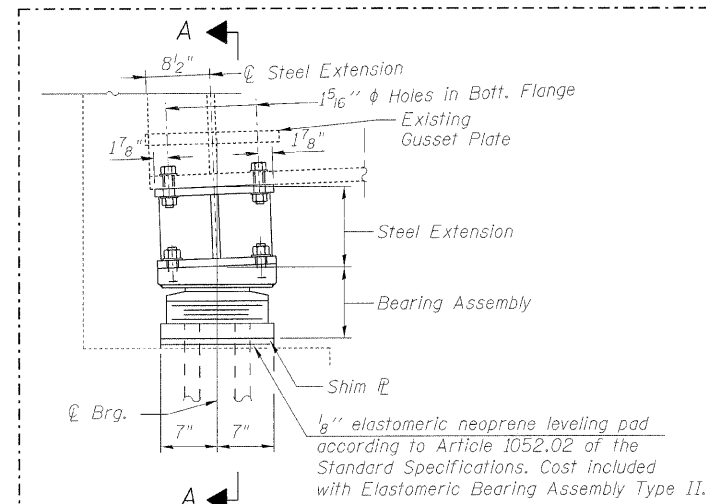
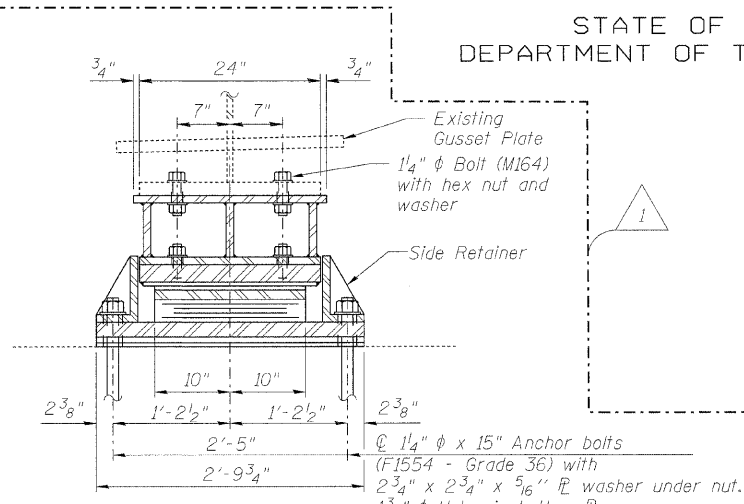


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

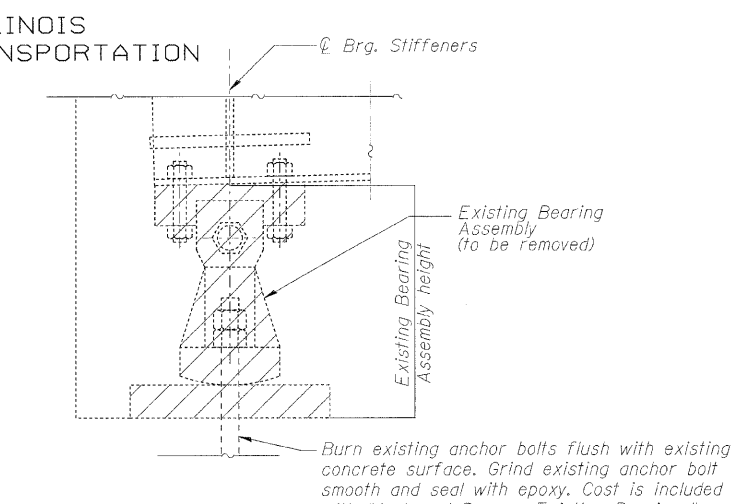


ELEVATION AT N. ABUT.

TYPE II ELASTOMERIC EXP. BRG.



SECTION A-A



EXISTING BEARING REMOVAL DETAIL

Girder	Exist. Brg. Assembly Height (survey) *	H**
A	21"	7 3/4"
B	21 3/8"	7 3/4"
C	20 5/8"	7 1/8"
D	20 1/8"	7 3/4"
E	20 3/8"	7 1/8"

\* Distances to be verified in the field prior to ordering any material.

\*\* Adjust "H" accordingly if verified exist. bearing assembly height differs from the height in the table.

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 for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members 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 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.

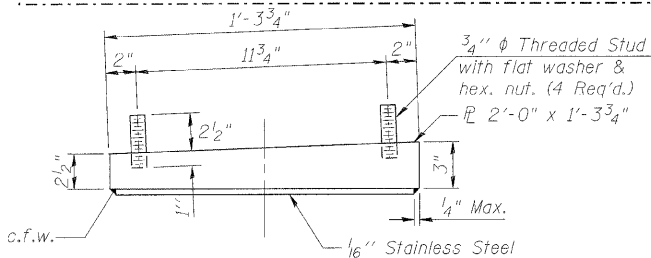
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

Two 1/2" in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

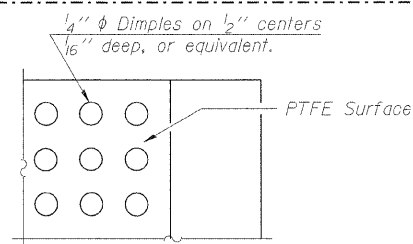
Prior to ordering any material the Contractor shall verify in the field all bearing height and shim thickness dimensions. Weight of steel extensions include in the cost of Furnishing and Erecting Structural Steel.

JACKING AND CRIBBING NOTES:

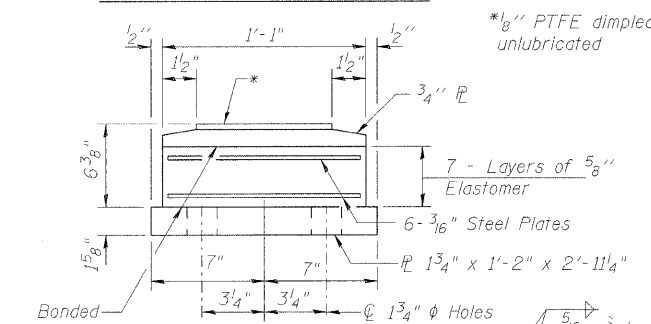
- The Contractor shall submit for approval by the Engineer, plans for jacking prior to commencing any work at the bearings.
- The maximum differential lift between beams at any one substructure unit shall be limited to 1/8".
- Traffic shall be removed from the portion of the structure to be jacked prior to commencing jacking operations. Traffic shall be kept off that portion of the structure during the entire bearing replacement operation. The maximum reaction per bearing is 150 K at the N. Abut. for stage constr. Minimum jack capacity is 150 tons.
- The new bearing shall be in place and the jacks lowered prior to allowing traffic back on that portion of the structure.



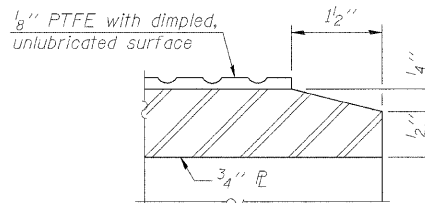
TOP BEARING ASSEMBLY



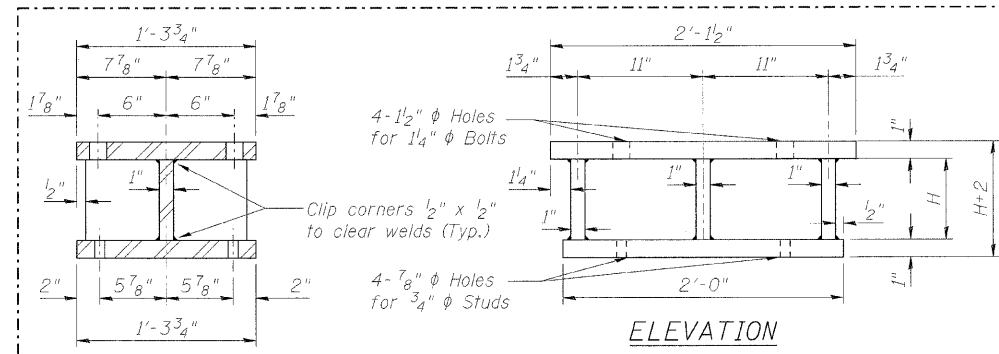
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY

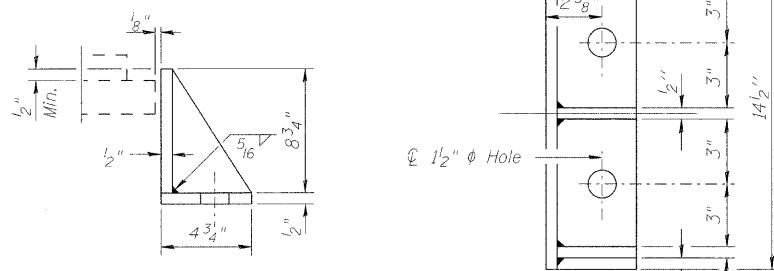


SECTION THRU PTFE



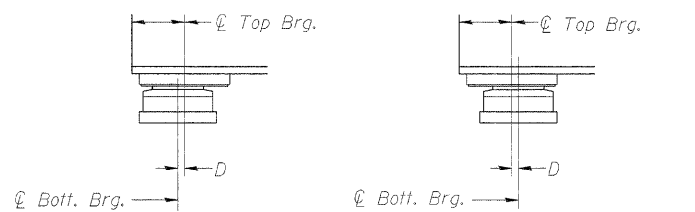
SECTION D-D

ELEVATION



SIDE RETAINER

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



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.

REACTION TABLE

	North Abutment
R <sub>D1</sub> (k)	105.7
R <sub>L1</sub> (k)	85.0
R <sub>T</sub> (k)	23.0
R <sub>TOTAL</sub> (k)	213.7

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Anchor Bolts 1 1/4" φ	Each	20
Furnishing and Erecting Structural Steel	Pound	1,820

NORTH ABUTMENT BEARINGS  
S.N. 016-0540

SHEET NO. S-16	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-27 SHEETS	2697	142 B-1-1	COOK	48	30
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
			CONTRACT NO. 60D89		

DESIGNED	B. Sauter
CHECKED	E. Mroczek
DRAWN	R. Danley
CHECKED	B. Sauter

**CG** Ciorba Group, Inc.  
CONSULTING ENGINEERS  
5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656  
Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

Revised 4/08/09 E.K.M.