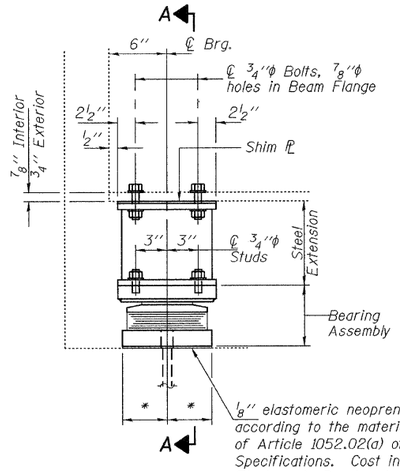
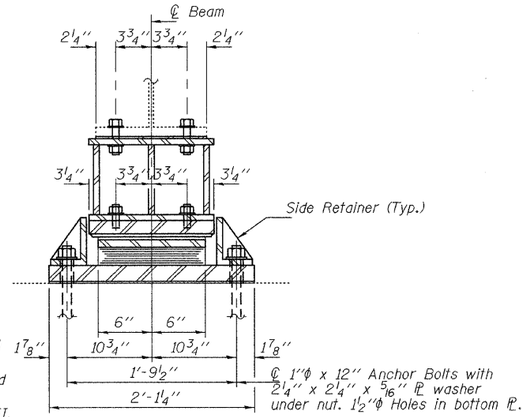
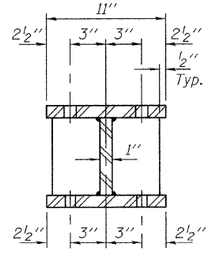
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



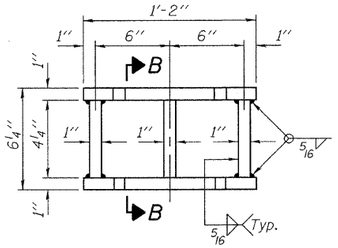
ELEVATION AT ABUTMENTS



SECTION A-A

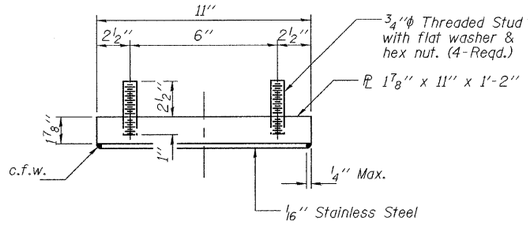


SECTION B-B

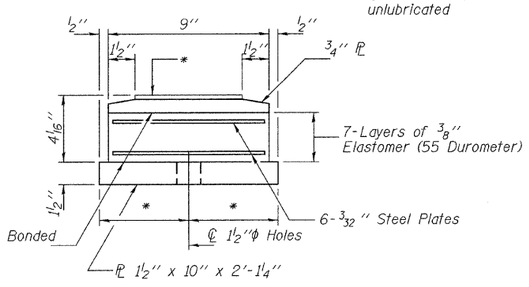


STEEL EXTENSION DETAIL

TYPE II TFE ELASTOMERIC EXP. BRG.

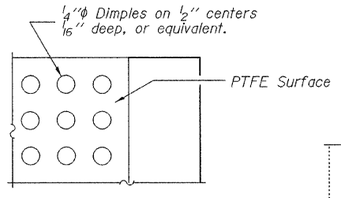


TOP BEARING ASSEMBLY

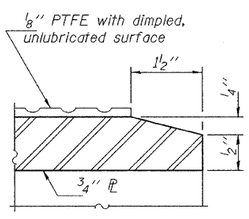


BOTTOM BEARING ASSEMBLY

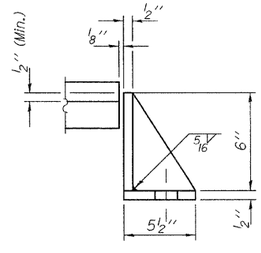
* For hole location see Plan View of Bottom Bearing Plate



PLAN-TFE SURFACE

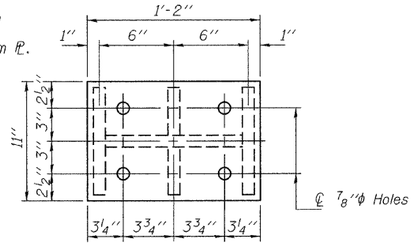


SECTION THRU TFE

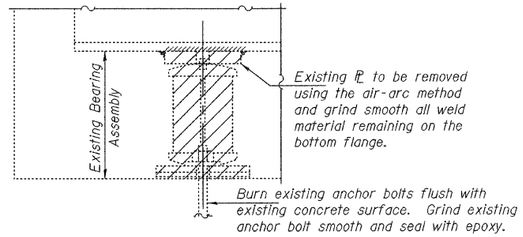


SIDE RETAINER

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

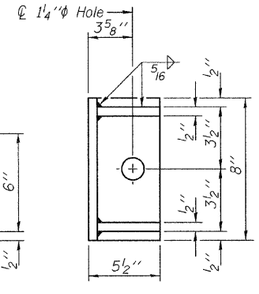


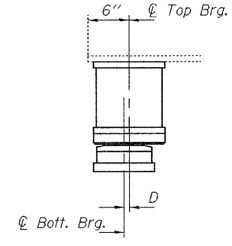
PLAN TOP AND BOTTOM PLATE



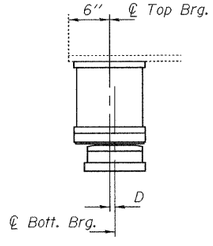
EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.





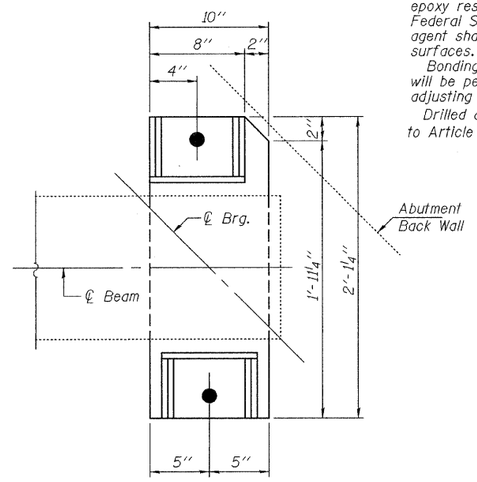
BELOW 50° F.
(Move bott. brg. away from fixed brg.)



ABOVE 50° F.
(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.



PLAN VIEW OF BOTTOM BEARING PLATE

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Min. jack capacity = 50 Tons.

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 through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Side retainers 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.

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

EAST ABUTMENT BEAM REACTIONS

RℓE	(K)	38.8
RℓF	(K)	43.9
Imp.	(K)	11.0
R (Total)	(K)	93.7

WEST ABUTMENT BEAM REACTIONS

RℓE	(K)	35.1
RℓF	(K)	44.7
Imp.	(K)	12.3
R (Total)	(K)	92.1

SHIM PLATES

SN 058-0095 at W. Abut.	
Girder 3	5/8" x 11" x 12"
Girder 4	5/8" x 11" x 12"

SN 058-0096 at W. Abut.	
Girder 4	1/4" x 11" x 12"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	24
Jack and Remove Existing Bearings	Each	24
Furnishing and Erecting Structural Steel	Pound	3420
Anchor Bolts, 1"ϕ	Each	48

ABUTMENT BEARING REPLACEMENT DETAILS
SN 058-0095 & 0096

DESIGNED	AJB
CHECKED	SJB
DRAWN	Steffen
CHECKED	AJB SJB

OCTOBER 30, 2009
EXAMINED A. Carl Provey ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 18	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21 SHEETS	72	66(B,HVB,HB-1)BR	MACON	83	62
			CONTRACT NO. 74343		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

0580095 & 0096.dgn 10/30/2009 11:35:47 AM