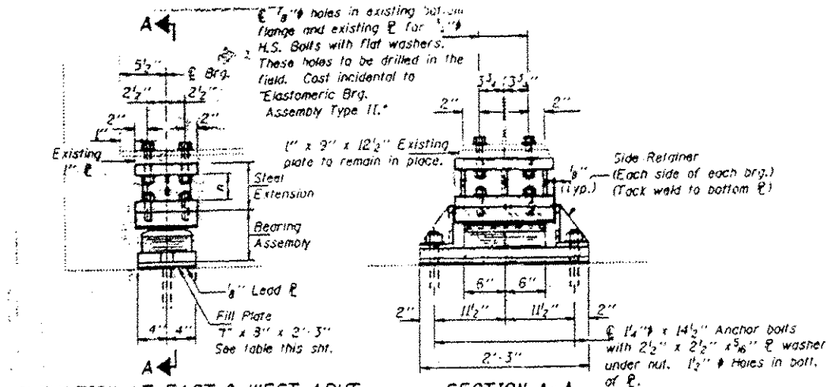
					SHEET NO. 12
F.A.I. 57	*	FRANKLIN	122	105	23 SHEETS

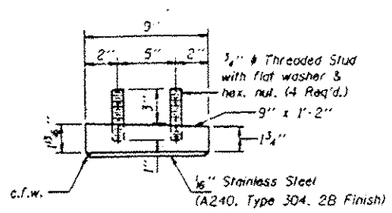
* 28(1HB-2, 3HB-1, 5HB-1)D

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

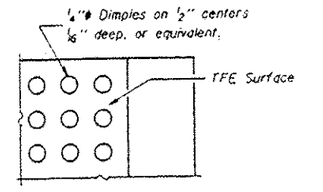


ELEVATION AT EAST & WEST ABUT. SECTION A-A

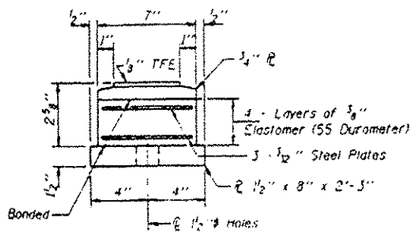
TYPE II TFE ELASTOMERIC EXP. BRG.



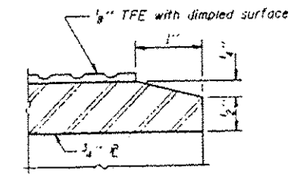
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



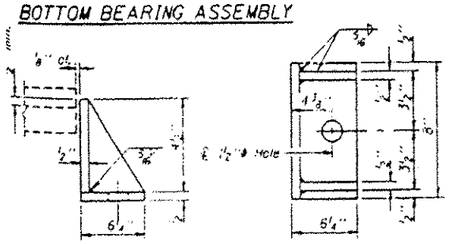
BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

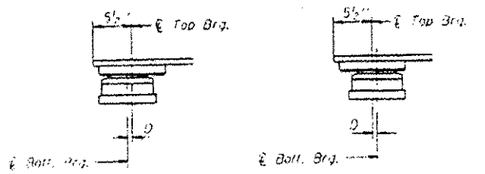
Note: The ⅛" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SIDE RETAINER

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



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.

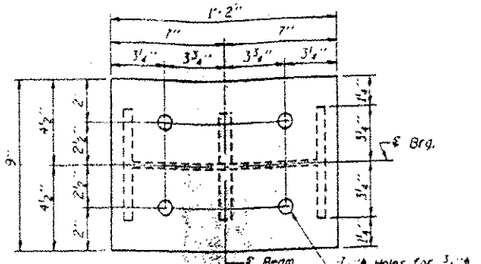
0°F. for each 100° of expansion for every 15° temp. change from the normal temp. of 50°F.

DESIGNED	Michael J. Thompson
CHECKED	Shane Akland
DRAWN	Shane Summer
CHECKED	

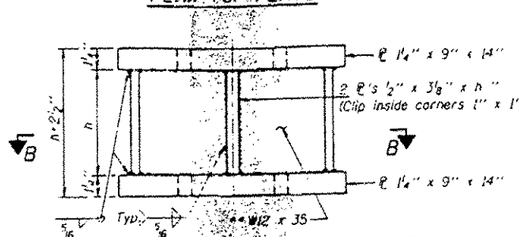
June 13, 1994

EXAMINED

PASSED

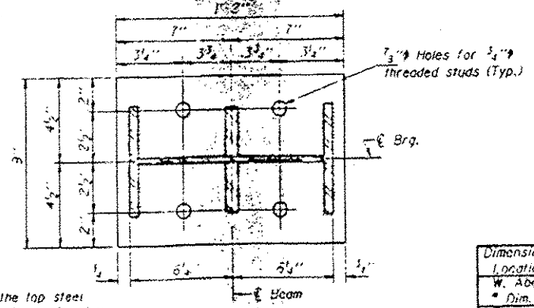


PLAN-TOP PLATE



STEEL EXTENSION AT EAST & WEST ABUT.

** Equivalent welded plates will be allowed in lieu of W12 x 35 section.



SECTION B-B

◢ INTERIOR BEAM MOMENT TABLE

		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	.5 Span 3	Pier 3	0.6 Sp. 4
Is	(in⁴)	6710	6710	5710	7861	6710	6710	6710
Ss	(in³)	406	406	406	547	406	406	406
W	(K/ft.)	1.084	1.084	1.084	1.084	1.084	1.084	1.084
MQ	('K)	142.1	291.0	160.5	371.7	167.4	277.3	194.0
ML	('K)	262.3	231.5	299.0	267.5	297.0	225.4	238.6
M (Imp)	('K)	77.6	64.9	80.7	72.3	90.3	53.2	71.6
M (Total)	('K)	482.5	587.4	540.2	711.5	544.7	565.9	424.2
fs	(k.s.i.)	14.2	17.4	16.0	15.6	16.1	16.7	12.5

◢ INTERIOR BEAM REACTION TABLE

		W. Abut.	Pier 1	Pier 2	Pier 3	E. Abut.
RQ	(K)	17.6	62.0	68.2	60.3	15.9
RL	(K)	33.0	41.6	42.0	41.6	32.4
Imp.	(K)	9.7	11.6	11.3	11.6	9.7
R (Total)	(K)	60.3	115.2	121.5	113.5	58.0

◢ Service Load Values

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total).
VR is the maximum live Load + Impact shear range in span.
fs is the sum of the stresses due to MQ + ML + I.
MQ Moment due to Dead Loads on non-composite section.
ML Moment due to Live Loads on non-composite section.
I = Live Load impact.

Dimension / Location	Bm. #	2	3	4	5	6	7	8	9	10	11	12	Bm. 13
W. Abut. * Dim. ""	5/16	1/8	1/16	0	1/16	1/8	1/8	1/8	5/16	1/16	1/16	3/16	1/8
E. Abut. * Dim. ""	1/16	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/8	0	1/8	0

	n
W. Abut.	5/16
E. Abut	5/16

* Based on the existing seat elevations shown on sheet #12 of 23. The Contractor shall verify these Elevs. and make adjustments if necessary. Cost incidental.

*** See Sht. #12 of 23 for Jack and Remove Existing Bearing Procedure and Location.

For anchor bolt installation details see sheet #15 of 23.
Existing anchor bolts which are not under side retainer shall be covered with 1" thick layer of cement mortar. Cost incidental to "Jack and Remove Existing Bearing".
For anchor bolt location see sheet #16 and #17 of 23.

FOR INFORMATION ONLY

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	26
*** Jack and Remove Existing Bearings	Each	26

EAST & WEST ABUTMENT
BEARING DETAILS
F.A.I. RT. 57 SEC. (28-5HB-1)D
FRANKLIN COUNTY
STATION 157+85.75

FILE NAME = c:\pw_work\pwidot\gautneyrk\d0319666\78341-sht-plan.dgn	USER NAME = gautneyrk	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0052 ' / in.	CHECKED -	REVISED -
$MODELNAME$	PLOT DATE = 10/11/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 028-0039
IL 149 OVER I-57

SCALE: ____ | SHEET ___ OF ___ SHEETS | STA. _____ | TO STA. _____

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	08 BRIDGE PAINTING 2013-1	VARIOUS	23	9
		CONTRACT NO. 78341		
	ILLINOIS FED. AID PROJECT			