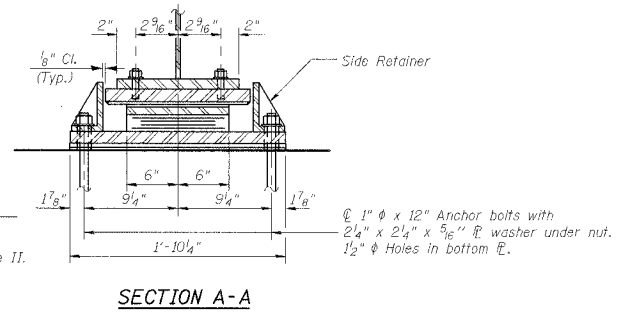
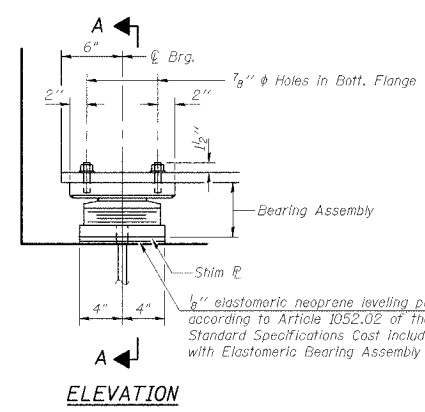


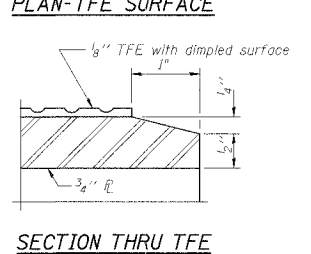
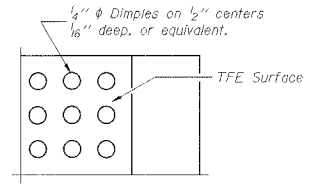
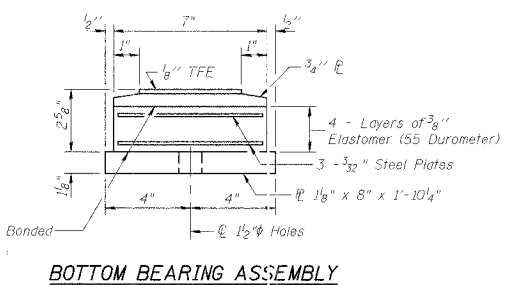
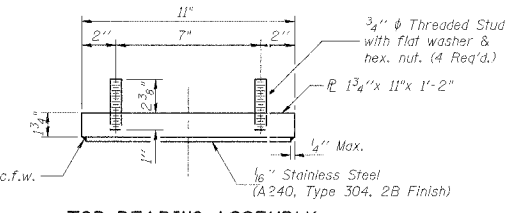
F.A. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	37
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Sheet 14 of 35 Sheets
PROJECT NO. BHM-8003(213)
CONTRACT NO. 83875

DATE	BY	REVISIONS
		1. PLOTTED
		2. CHECKED
		3. APPROVED
		4. FILED

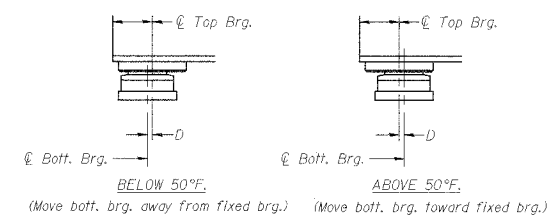


TYPE II ELASTOMERIC EXP. BRG. AT N. ABUT.
(16 Required)



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



BEAM MOMENT TABLE

	0.4 Sp. 1	S. Pier	0.5 Sp. 2
I_s	(in ⁴) 2700	2700	2700
I_c (n)	(in ⁴) 7970		7970
I_c (3n)	(in ⁴) 5809		5809
S_s (n)	(in ⁻³) 222	222	222
S_c (n)	(in ⁻³) 344		344
S_c (3n)	(in ⁻³) 309		309
Z	(in ⁻³)		
ϕ	(k/ft.) 0.675	1.278	0.675
$M\phi$	(k) 109.0	243.5	39.2
$s\phi$	(k/ft.) 0.603		0.603
$Ms\phi$	(k) 106.3		57.3
M_L	(k) 240.5	112.9	197.3
M (Imp)	(k) 70.7	33.1	57.6
M_s (M+M(Imp))	(k) 518.7	243.3	424.9
M_a	(k) 954.2	632.8	677.8
M_u	(k)		
$F_s\phi$ non-comp (k.s.i.)	5.89	13.16	2.12
$F_s\phi$ (comp) (k.s.i.)	4.15		2.23
$F_s\phi_s$ (k+Imp) (k.s.i.)	18.09	13.15	14.82
F_s (Overload) (k.s.i.)	28.11	26.31	19.16
F_s (Total) (k.s.i.)		34.21	
VR	(k) 39.6		30.2

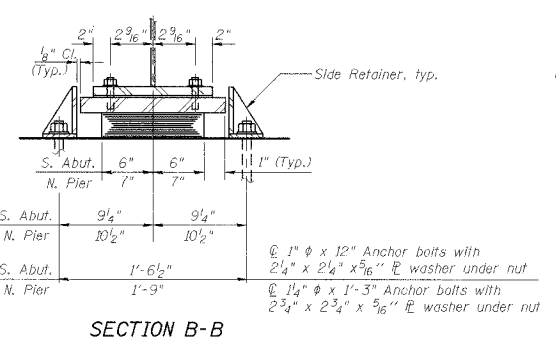
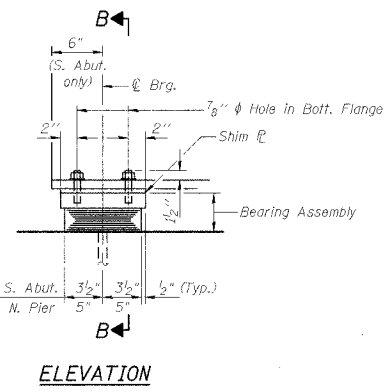
BEAM REACTION TABLE

	South Abut.	S. Pier
$R\phi$	(k) 23.5	63.7
R_L	(k) 35.8	42.7
Imp.	(k) 10.5	12.5
R (Total)	(k) 69.8	118.9

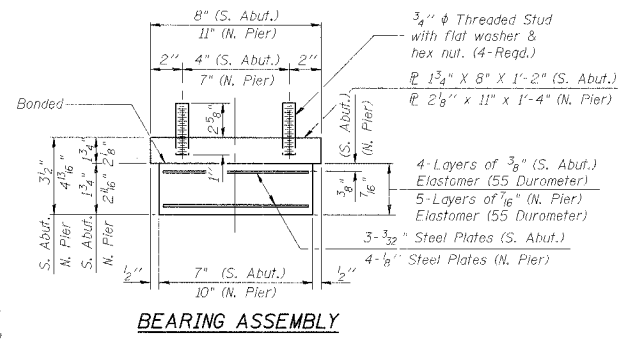
NOTES:

- I_s and S_s are the moment of inertia and section modulus of the steel section used in computing I_s
- I_c (n) and S_c (n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
- I_c (3n) and S_c (3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed Dead Loads. (see AASHTO 10.38)
- VR is the maximum Live Load + Impact shear range in span.
- The plastic moment capacity (M_u) is computed according to AASHTO 10.48.1 & 10.50.1.1.
- F_s (Overload) is the sum of the stresses due to $[M\phi + M\phi + 5/3 (M_L + M(Imp))]$.
- $M\phi$ - Moment due to dead loads on non-composite section.
- $Ms\phi$ - Moment due to dead loads on composite section.
- M_L - Moment due to live loads on non-composite or composite section.
- M (Imp) - Moment due to live load impact on non-composite or composite section.
- M_a (Applied Moment) = $1.3 [M\phi + Ms\phi + 5/3 (M_L + M(Imp))]$.

DATE	BY	REVISIONS
		1. PLOTTED
		2. CHECKED
		3. APPROVED
		4. FILED



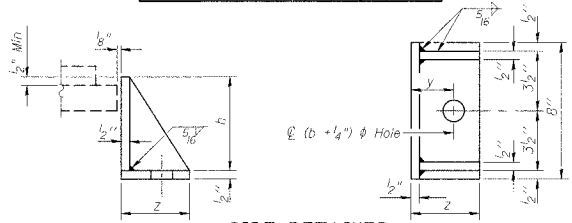
TYPE I ELASTOMERIC EXP. BRG. AT S. ABUT. & N. PIER
(32 Required)



Note: Shim plates shall not be placed under Bearing Assembly.

SIDE RETAINER DIMENSIONS

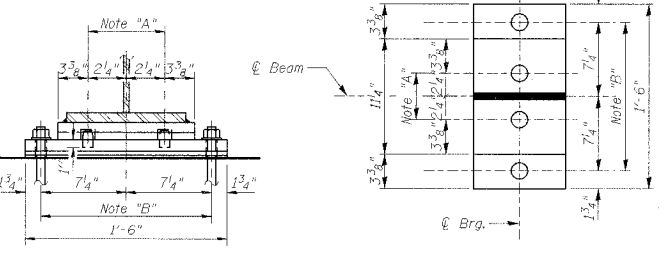
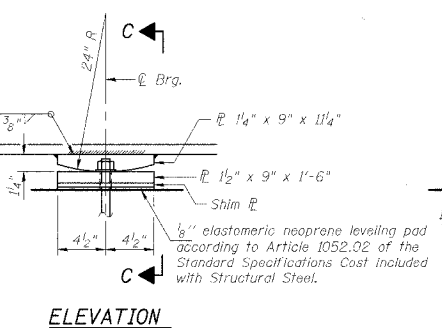
	b	y	h	z
S. Abut.	1"	2 1/2"	3 1/2"	4"
N. Abut.	1"	2 1/2"	4 1/2"	4"
N. Pier	1 1/4"	2 3/8"	4 1/2"	4 3/4"



BEAM REACTION TABLE

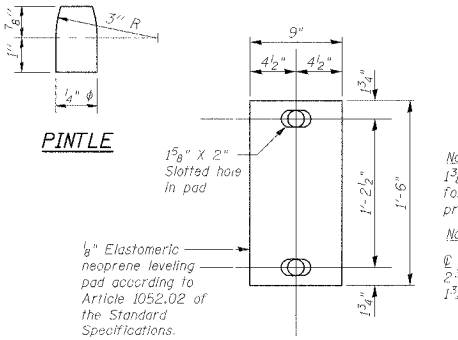
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	32
Elastomeric Bearing Assembly Type II	Each	16



FIXED BEARING AT SOUTH PIER
(16 Required)

PLAN



REVISIONS	NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION
FRAMING DETAILS & TABLES
BUFFALO GROVE ROAD
AT INDIAN CREEK BRIDGE
SECTION 00-00254-01-BR STATION 101+50.00
LAKE COUNTY STRUCTURE NO. 049-3043
SCALE: NONE DRAWN BY: TBW
DATE: 7/21/06 CHECKED BY: ATI, WK