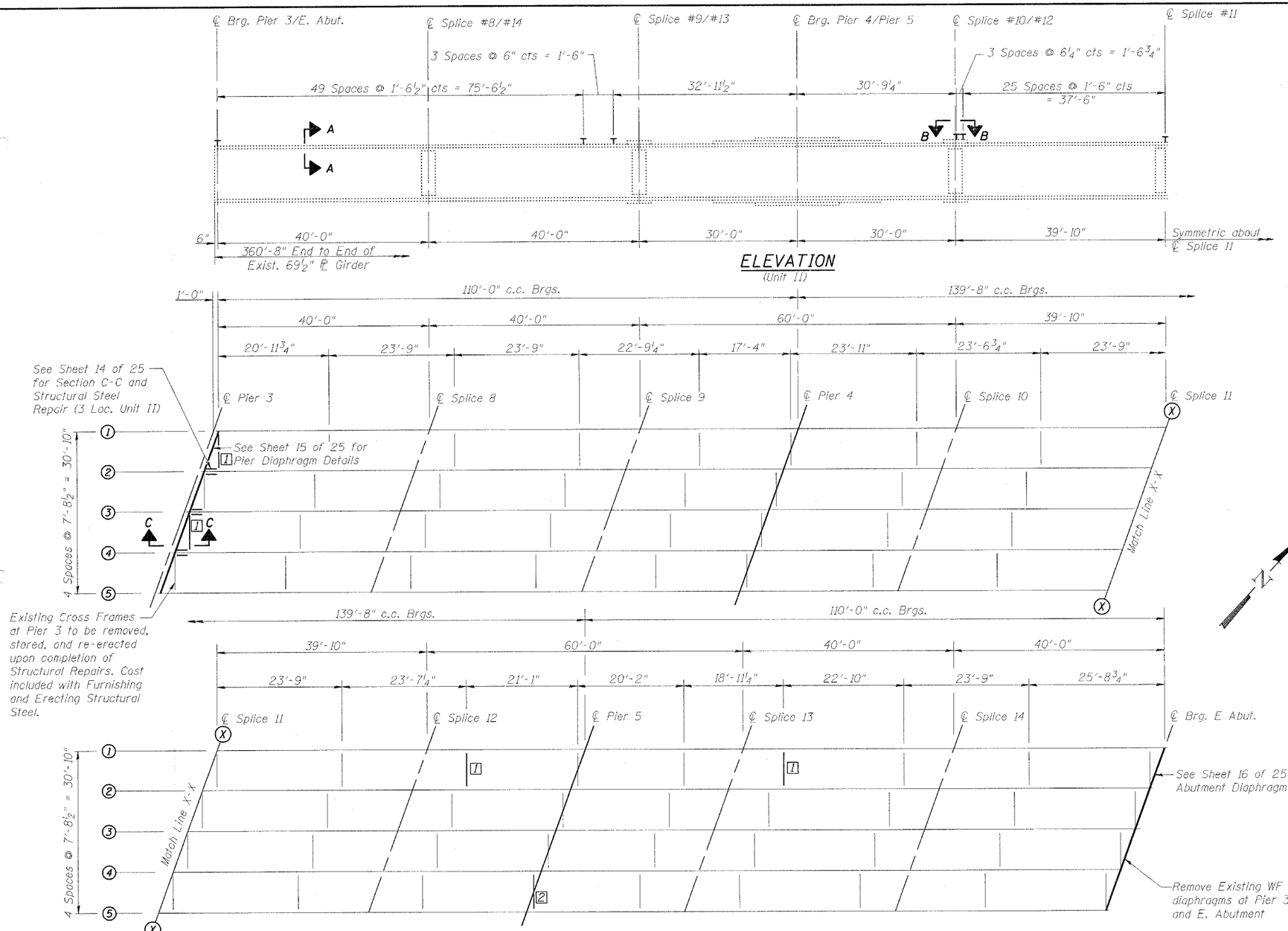
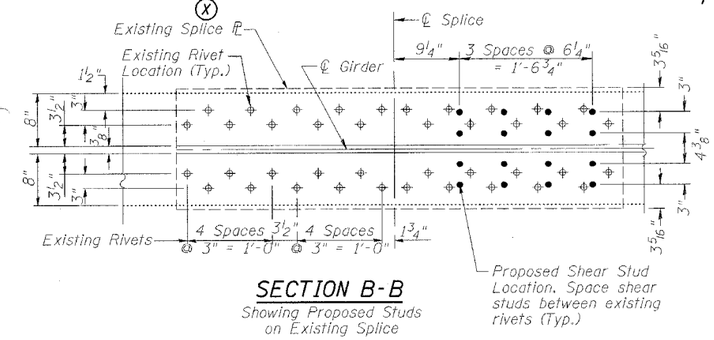
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7978	BR-1	SANGAMON	261	138
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 13
25 SHEETS

Contract #72449

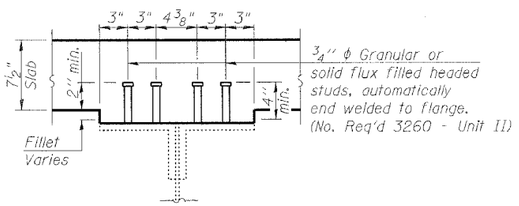


ELEVATION
(Unit II)



SECTION B-B
Showing Proposed Studs on Existing Splice

FRAMING PLAN
(Unit II)



SECTION A-A

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 0.6 Sp. 3	Piers	0.5 Sp. 2
Is	(in^4)	50326	81932	50326
Ic (n)	(in^4)	100935		100935
Ic (3n)	(in^4)	76837		76837
Ss	(in^3)	1448	2292	1448
Sc (n)	(in^3)	1807		1807
Sc (3n)	(in^3)	1677		1677
℘	(k/ft.)	1.100	1.520	1.100
M℘	('k)	852	2483	829
s℘	(k/ft.)	0.420		0.420
Ms℘	('k)	363		410
M℄	('k)	1007	990	1036
M (Imp)	('k)	215	199	195
$5/3[M℄+M(Imp)]$	('k)	2037	1982	2052
Ma	('k)	4228	5805	4278
Mu	('k)	4659		4662
fs℘ non-comp	(k.s.i.)	7.1	13.0	6.9
fs℘ (comp)	(k.s.i.)	2.6		3.0
$fs\,5/3(℄+Imp)$	(k.s.i.)	13.6	10.4	13.7
fs (Overload)	(k.s.i.)	23.3	23.4	23.6
fs (Total)	(k.s.i.)		30.4	
VR	(k)	61.2		53.1

INTERIOR GIRDER REACTION TABLE				
		Pier 3	Pier 4 or 5	Abut.
R℘	(k)	63.0	212.5	61.1
R℄	(k)	45.3	83.3	45.3
Imp.	(k)	9.6	11.1	9.6
R (Total)	(k)	117.9	306.9	116.0

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

$Ic_{(n)}$ and $Sc_{(n)}$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

$Ic_{(3n)}$ and $Sc_{(3n)}$ 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.

Ma (Applied Moment)=1.3[M℘ + Ms℘ + 5/3(M℄ + M(Imp))].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to M℘ + Ms℘ + 5/3(M℄ + M(Imp)).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[M℘ + Ms℘ + 5/3(M℄ + M(Imp))].

R℘ at Pier 3 includes Finger Joint weight.

DIAPHRAGM REPLACEMENT:

1 Bottom L3½"x3½"x5/16"

2 Bottom ℓ. 3½"x3½"x5/16" and bottom 5/16" Gusset Plates.

(See Sheet 16 of 25 for Diaphragm Details)

NOTES:

Two hardened washers shall be required over all oversize holes at diaphragms.

The cost of removing the existing diaphragms and Finger Joint to be included in the cost of Structural Steel Removal.

The cost of the replacement diaphragms, hardware and painting to be included in the cost of Furnishing and Erecting Structural Steel. Cost of Field Drilling Holes in Beams included in the cost of Furnishing and Erecting Structural Steel.

Existing dimensions to be field verified prior to ordering of material.

See Sheet 14 of 25 for Section C-C.

See Sheet 12 of 25 for Bill of Material

ILLINOIS DEPARTMENT OF TRANSPORTATION

FRAMING PLAN UNIT II

OLD U.S. ROUTE 36 OVER
SANGAMON RIVER
F.A.U. ROUTE 7978
SECTION BR-1
SANGAMON COUNTY
STA. 70+00.00
STRUCTURE NUMBER 084-0052

DRAWN BY: NJV
CHECKED BY: PBB
DATE: JAN. 2005