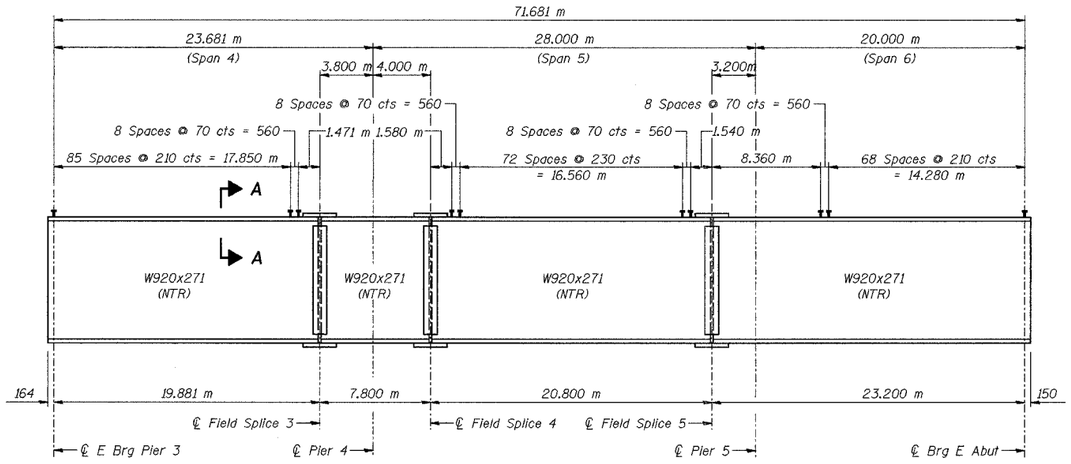
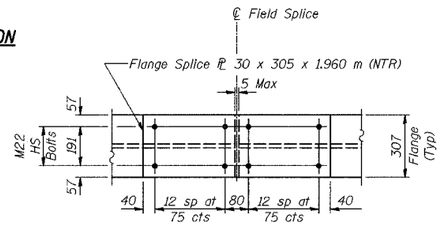
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80/94	2626.2-R-2	LAKE COUNTY, INDIANA	452	272
	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S-40
72 SHEETS

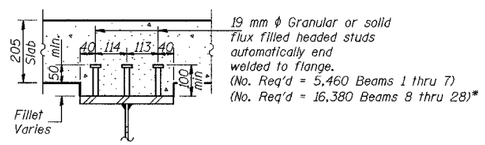
CONTRACT NO. 62113 INDOT DES. NO. 0100987



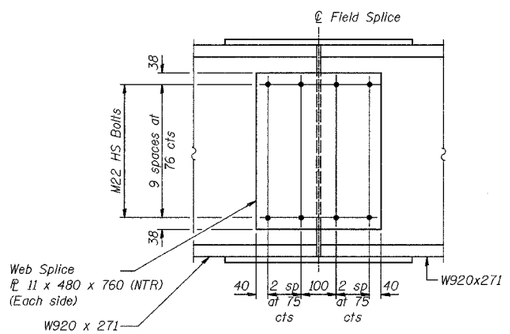
BEAM ELEVATION



PLAN VIEW TOP AND BOTTOM



SECTION A-A



ELEVATION FIELD SPLICE 3, 4 & 5

INTERIOR BEAM MOMENT TABLE

		0.4 Span 4	Pier 4	0.5 Span 5	Pier 5	0.6 Span 6
Is	(10^6 mm^4)	4703	4703	4703	4703	4703
Ic (n)	(10^6 mm^4)	9902	———	9902	———	9902
Ic (3n)	(10^6 mm^4)	7291	———	7291	———	7291
Ss	(10^3 mm^3)	10209	10209	10209	10209	10209
Sc (n)	(10^3 mm^3)	13498	———	13498	———	13498
Sc (3n)	(10^3 mm^3)	12201	———	12201	———	12201
Z	(10^3 mm^3)	———	———	———	———	———
M℄	(kN-m/m)	12.92	22.57	12.92	22.57	12.92
MD	(kN-m)	512	1446	446	1209	327
s℄	(kN/m)	9.65	———	9.65	———	9.65
Ms℄	(kN-m)	430	———	439	———	278
ML	(kN-m)	883	503	899	487	709
M (Imp)	(kN-m)	218	124	207	128	186
$\frac{5}{3}$[ML+M(Imp)]	(kN-m)	1835	1045	1845	1024	1492
Ma	(kN-m)	3610	3238	3549	2903	2727
Mu	(kN-m)	5562	———	5562	———	5562
fs℄ non-comp	(MPa)	50	142	44	118	32
fs℄ (comp)	(MPa)	35	———	36	———	23
fs $\frac{5}{3}$(L+Imp)	(MPa)	136	102	137	100	111
fs (Overload)	(MPa)	221	244	216	219	165
fs (Total)	(MPa)	———	317	———	284	———
VR	(kN)	129	———	139	———	121

INTERIOR BEAM REACTION TABLE

		Pier 3	Pier 4	Pier 5	E Abut
R℄	(kN)	206	653	594	165
RL	(kN)	182	265	260	175
Imp.	(kN)	45	65	68	46
R (Total)	(kN)	433	983	922	386

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.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment)=1.3[M℄ + Ms℄ + $\frac{5}{3}$(ML + 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℄ + $\frac{5}{3}$(ML + M_{Imp}).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[M℄ + Ms℄ + $\frac{5}{3}$(ML + M_{Imp})].

DESIGNED	BHS
CHECKED	KFA
DRAWN	BHS
CHECKED	GSP

NOTES:

All structural steel on this sheet shall be AASHTO M 270M, Grade 345W.

See Sheet No. S-41 for diaphragm details.

NTR denotes notch toughness requirements.

All dimensions are in millimeters (mm) except as noted.

*** FOR INFORMATION ONLY**

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 80/94 (BORMAN EXPRESSWAY)
OVER LITTLE CALUMET RIVER & N.I.C.T.D. R.O.W.

FRAMING DETAILS – UNIT 2 (1 OF 2)
SECTION 2626.2-R-1
LAKE COUNTY, INDIANA
STATION 8+470.000
STRUCTURE NO. I-80-1-8460 (EB & WB)
DATE 07/04 **(016-1003 & 016-1004)**

AMERICAN CONSULTING ENGINEERS