



INTERIOR BEAM MOMENT TABLE

	0.4 Span 1 0.6 Span 3	Pier 1 or 2	0.5 Span 2
I	(10 ⁶ mm ⁴) 59986	---	59986
I'	(10 ⁶ mm ⁴) 153856	---	153856
Sb	(10 ³ mm ³) 111989	---	111989
Sb'	(10 ³ mm ³) 179051	---	179051
St	(10 ³ mm ³) 87753	---	87753
St'	(10 ³ mm ³) 463460	---	463460
Ip	(kN/m) 20.54	---	21.08
M _D	(kN·m) 489	---	1684
s _D	(kN/m) 11.40	11.40	11.40
M _S	(kN·m) 48	526	401
M _L	(kN·m) 463	609	765
M (Imp)	(kN·m) 135	178	183

INTERIOR BEAM REACTION TABLE

	Abutment	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
R _D	(kN) 140	143	272
* R _{sD}	(kN) 40	117	145
* R _L	(kN) 191	215	244
* Imp.	(kN) 56	63	58
R (Total)	(kN) 427	538	719

* The total R_{sD}, R_L, and Impact Reactions are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios. The bearing design at a pier shall be based on the maximum reactions of either span.

I and I' are the moment of inertia and composite moment of inertia of the beam section.
 Sb and Sb' are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.
 St and St' are the non-composite and composite section modulus for the top fiber of the prestressed beam.
 M_D is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.
 M_S is the moment due to dead loads on the composite section.
 M_L is the moment due to live load on the composite section.
 M (Imp) is the moment due to live load impact on the composite section.

NOTES:
 See Sheet Nos. S-17 thru S-19 for diaphragm details.
 See Sheet Nos. S-23 and S-24 for prestressed beam details.
 All dimensions are in millimeters (mm) except as noted.

DESIGNED	BHS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

FRAMING PLAN

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. ROUTE 80/94 (BORMAN EXPRESSWAY)
 OVER HOHMAN AVENUE

FRAMING PLAN
 SECTION 2626.2-R-2
 LAKE COUNTY, INDIANA
 STATION 8+225.132
 STRUCTURE NO. I-80-1-8459 (EB & WB)
 DATE 09/05 (016-1001 & 016-1002)

AMERICAN
 CONSULTING ENGINEERS