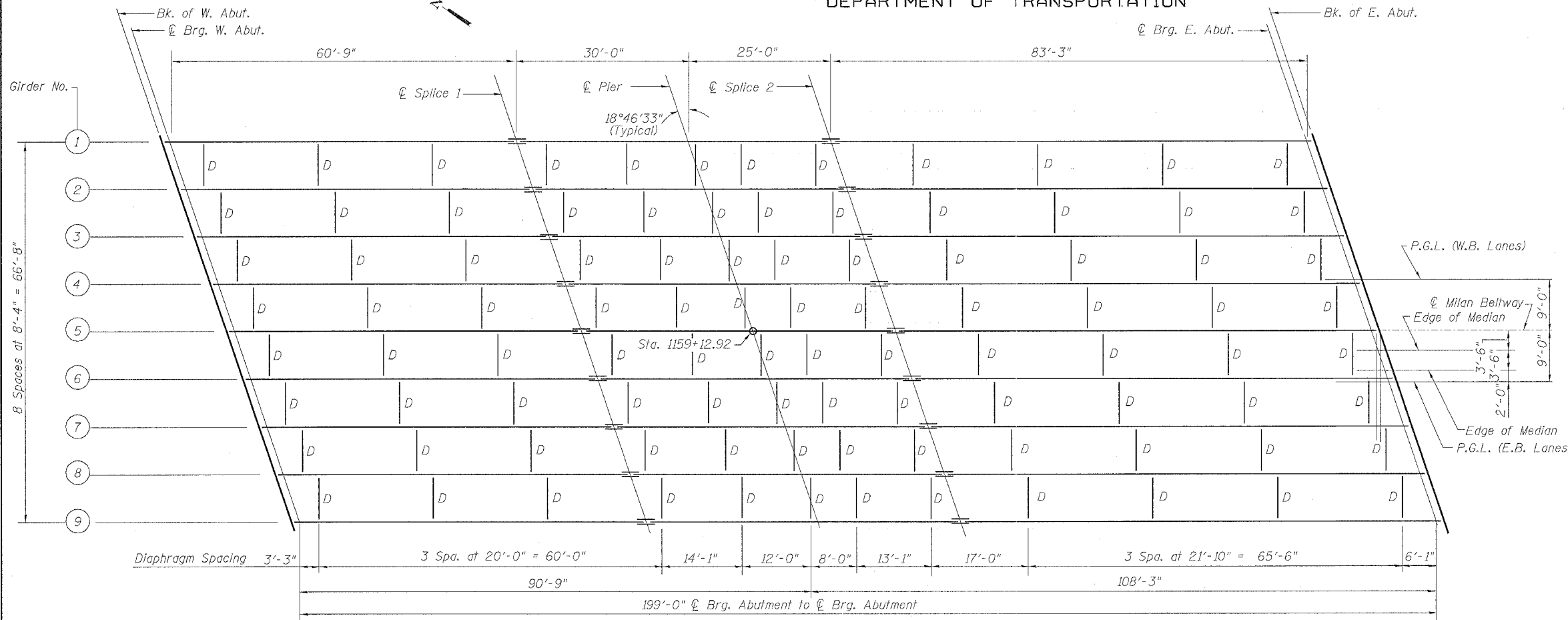


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	I-3-K	Rock Island	476	262
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 11
22 SHEETS



	0.4 Sp. 1	Pier	0.6 Sp. 2
I_s (in ⁴)	15754	25805	15754
I_c (n) (in ⁴)	42000	—	42000
I_c (3n) (in ⁴)	30731	—	30731
S_s (in ³)	837	1147	837
S_c (n) (in ³)	1137	—	1137
S_c (3n) (in ³)	1051	—	1051
Z (in ³)	—	—	—
ϕ (k/ft.)	0.98	1.56	0.98
$M\phi$ (k)	405	2062	812
$s\phi$ (k/ft.)	0.51	—	0.51
$Ms\phi$ (k)	259	—	472
$M\phi$ (k)	864	753	1052
M (Imp) (k)	200	168	225
$s_3[M\phi + M(\text{Imp})]$ (k)	1773	1535	2128
Ma (k)	3169	4676	4436
Mu (k)	5610	—	5610
$f_s\phi$ non-comp (k.s.i.)	5.8	21.6	11.6
$f_s\phi$ (comp) (k.s.i.)	3.0	—	5.4
$f_s s_3(\phi + \text{Imp})$ (k.s.i.)	18.7	16.1	22.5
f_s (Overload) (k.s.i.)	27.5	37.7	39.5
f_s (Total) (k.s.i.)	—	48.9	—
VR (k)	66.9	—	64.6

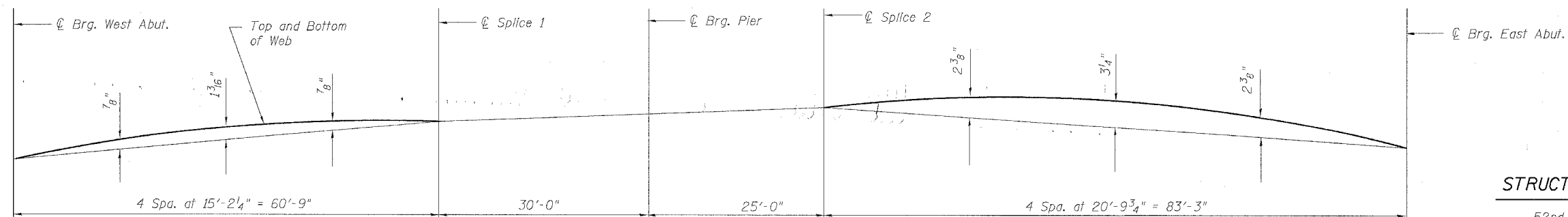
	W. Abut.	Pier	E. Abut.
$R\phi$ (k)	45.4	193.6	62.0
$R\phi$ (k)	47.9	78.6	48.9
Imp. (k)	11.1	12.1	10.5
R (Total) (k)	104.4	284.3	121.4

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 $I_c(n)$ 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.
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
 Ma (Applied Moment) = $1.3[M\phi + Ms\phi + s_3(M\phi + M(\text{Imp}))]$.
 The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.
 f_s (Overload) is the sum of the stresses due to $M\phi + Ms\phi + s_3(M\phi + M(\text{Imp}))$.
 f_s (Total) (Compact section) is the sum of the stresses due to $1.3[M\phi + Ms\phi + s_3(M\phi + M(\text{Imp}))]$.

TOP OF WEB ELEVATION
(For fabrication only)

Location	☉ Brg. W. Abut.	☉ Splice 1	☉ Brg. Pier	☉ Splice 2	☉ Brg. E. Abut.
Girder 1	598.657	598.997	599.053	599.099	598.495
Girder 2	598.851	599.172	599.219	599.258	598.628
Girder 3	599.044	599.347	599.385	599.416	598.762
Girder 4	599.233	599.518	599.546	599.570	598.890
Girder 5	599.382	599.649	599.669	599.685	598.980
Girder 6	599.294	599.542	599.553	599.562	598.832
Girder 7	599.141	599.371	599.372	599.373	598.618
Girder 8	598.997	599.208	599.200	599.194	598.414
Girder 9	598.851	599.045	599.028	599.014	598.208

FRAMING PLAN



CAMBER DIAGRAM

DESIGNED	JDC
CHECKED	JBK
DRAWN	RAP
CHECKED	JBK

STRUCTURAL STEEL FRAMING

52nd Ave. over Milan Beltway
F.A.U. Route 5822 Section I-3
Rock Island County
Sta. 1159+12.92
Structure Number 081-0156