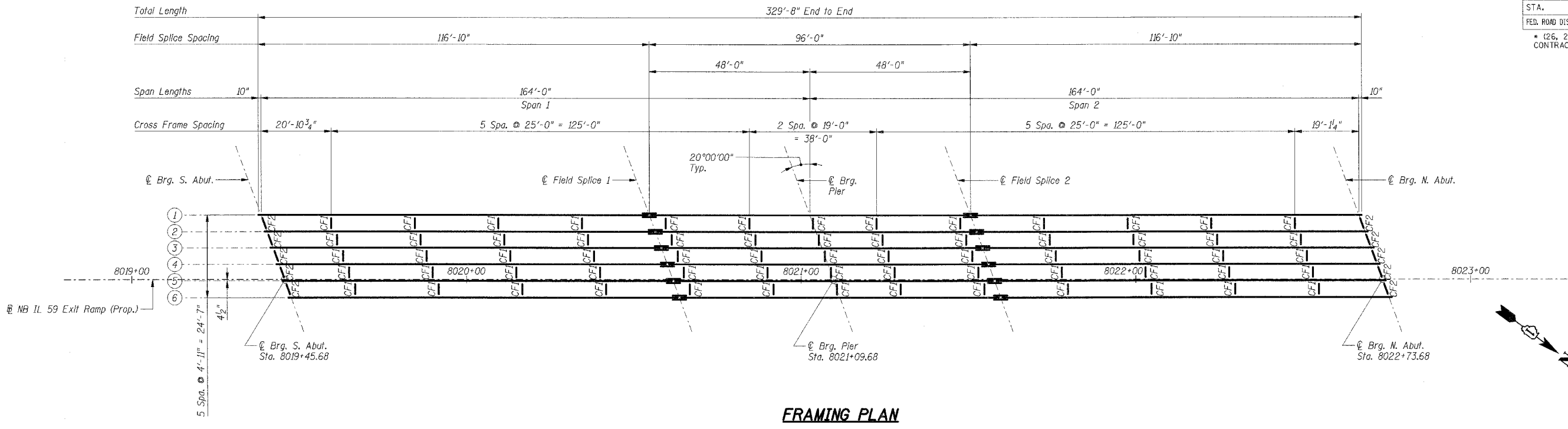
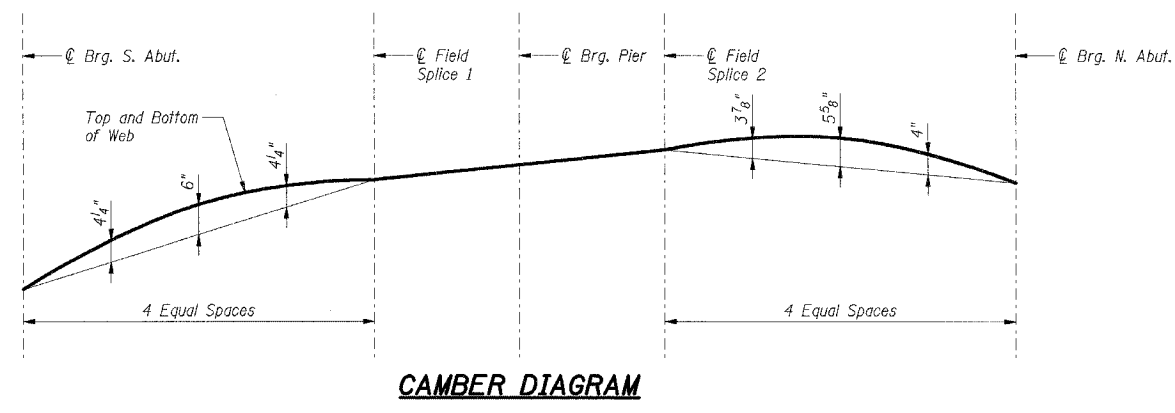


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	*	WILL	608	357
STA. 8019+00		TO STA. 8023+00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* (26, 26HB-1 & 114) R-2 CONTRACT NO. 60363				



FRAMING PLAN



CAMBER DIAGRAM

TOP OF WEB ELEVATIONS
Note: For fabrication use only.

Girder	℄ Brg. S. Abut.	℄ Field Splice 1	℄ Brg. Pier	℄ Field Splice 2	℄ Brg. N. Abut.
1	620.76	622.59	622.85	623.10	622.58
2	620.70	622.51	622.75	622.99	622.46
3	620.64	622.43	622.66	622.90	622.34
4	620.58	622.35	622.57	622.80	622.23
5	620.52	622.27	622.48	622.70	622.11
6	620.45	622.18	622.40	622.61	621.99

INTERIOR GIRDER MOMENT TABLE

		0.4 Span 1 or 0.6 Span 2	Pier
Is	(in ⁴)	34436	79341
Ic (n)	(in ⁴)	70027	
Ic (3n)	(in ⁴)	51511	
Ss	(in ³)	1192	2479
Sc (n)	(in ³)	1533	
Sc (3n)	(in ³)	1394	
Z	(in ³)		
DL	(k-ft)	0.710	1.261
M DL	(k-ft)	1158	4710
sDL	(k-ft)	0.367	
M sDL	(k-ft)	617	
M LL	(k-ft)	991	1284
M (Imp)	(k-ft)	171	222
5/3 [M LL + M (Imp)]	(k-ft)	1937	2511
Ma	(k-ft)	4826	9398
Mu	(k-ft)	7055	
fs DL (non-comp)	(ksi)	11.7	22.8
fs DL (comp)	(ksi)	5.3	
fs 5/3 [M LL + M (Imp)]	(ksi)	15.2	12.2
fs (Overload)	(ksi)	32.1	35.0
fs (Total)	(ksi)		45.4
VR	(k)	37.8	

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total and Overload).
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total and Overload).
VR is the maximum Live Load + Impact shear range within the composite portion of the span.
Z is the plastic section modulus used to determine the fully plastic moments in the noncomposite areas.
Ma (Applied Moment) = 1.3 [M DL + M sDL + 5/3 (M LL + M (Imp))].
Mu is the maximum bending strength. (compact, braced section)
fs (Overload) is the sum of the stresses due to M DL + M sDL + 5/3 (M LL + M (Imp)).
fs (Total) is the sum of the stresses due to 1.3 [M DL + M sDL + 5/3 (M LL + M (Imp))]. (noncompact section)

- Notes:**
- All structural steel shall be AASHTO M 270 Grade 50 except cross frames and intermediate cross frame connection plates which shall be AASHTO M 270 Grade 36.
 - For Girder Elevation see Sheet S-12.
 - For Cross Frame Details see Sheet S-13.
 - For Field Splice Details see Sheet S-13.
 - All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

INTERIOR GIRDER REACTION TABLE

	Abutment	Pier
R DL	(k) 64.3	243.4
R LL	(k) 34.6	71.0
Imp.	(k) 6.0	12.3
R (Total)	(k) 104.8	326.6

SHT. S-11 OF S-24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
IL ROUTE 59 OVER F.A.I. 55 (I-55)
SECTION (26, 26HB-1 & 114) R-2
STRUCTURE NUMBER 099-4642
STATION 8021+17.13, WILL COUNTY

STEEL FRAMING PLAN

DRAWN BY: CCE
CHECKED BY: MDB
DATE: 03/14/08

TENG
TENG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
218 N. SHERIDAN AVE. DEERFIELD, IL 60015
TELEPHONE: 848-0000

\\VAL-T00R16.DGN, \\ATTBORH.DGN, \\SLSL00RHZL.DGN, \\LNE00SH.DGN, \\FRF00S.IG.DGN, \\ABT00VT.DGN, \\SBL00S.Y.DGN, \\BONDH.DGN, \\DOCUMENT\\827290\\STRUCT\\DGRA\\FRF00S.IG.DGN
 color table: K:\\STANDARD\\TEMP\\DATA\\COLOR\\TABLE.TBL
 pen table: N/A