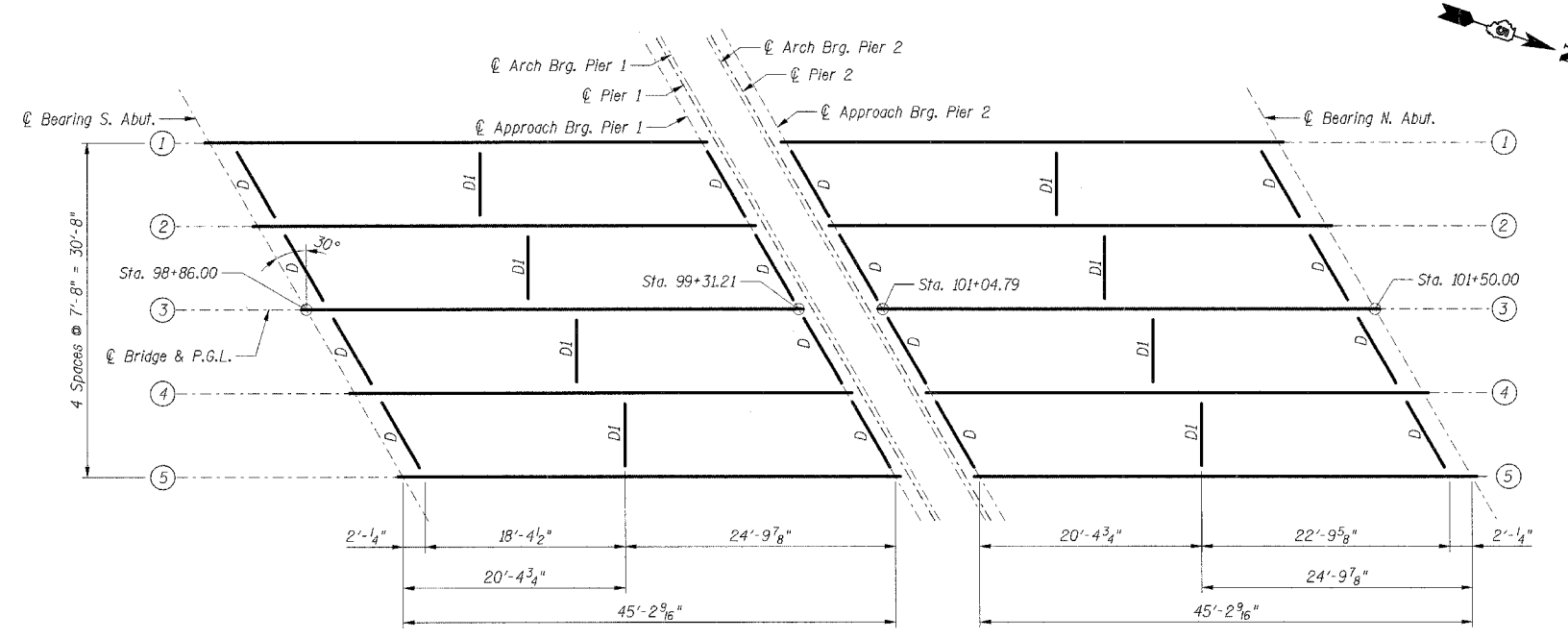


FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7000	02-00212-00-BR	VERMILION	59	30
FROM STA. 96+00.00		TO STA. 103+10.10		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 91285



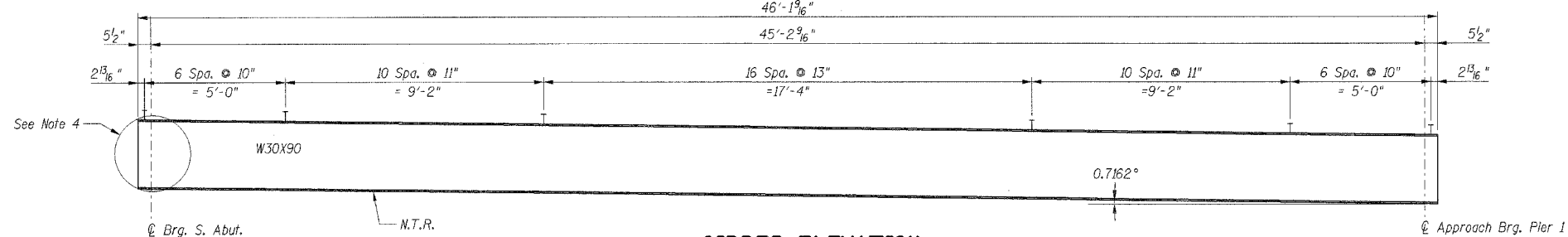
FRAMING PLAN - APPROACH SPANS

TOP OF BEAM ELEVATIONS
(For Fabrication only)

BEAM	LOCATION			
	@ Brg. S. Abut.	@ S. Appr. Brg.	@ N. Appr. Brg.	@ Brg. N. Abut.
1	554.652	554.087	551.915	551.349
2	554.750	554.185	552.013	551.447
3	554.848	554.282	552.110	551.545
4	554.584	554.074	551.902	551.336
5	554.431	553.865	551.693	551.127

INTERIOR GIRDER MOMENT TABLE

	Midspan
I_s	(in ⁴) 3610
$I_c(n)$	(in ⁴) 11387
$I_c(3n)$	(in ⁴) 8610
S_s	(in ³) 245
$S_c(n)$	(in ³) 390
$S_c(3n)$	(in ³) 355
Z	(in ³) 283
Q	(k-ft) 0.833
M_R	(k-ft) 213
s_Q	(k-ft) 0.520
$M_s Q$	(k-ft) 133
$M_s L$	(k-ft) 378
M (Imp)	(k-ft) 111
$s_3(M_L + I)$	(k-ft) 815
M_u	(k-ft) 1509
M_u	(k-ft) 2017
$f_s Q$ non-comp	(k.s.i.) 10.4
$f_s Q$ comp	(k.s.i.) 4.5
$f_s s_3(L + I)$	(k.s.i.) 25.1
f_s (Overload)	(k.s.i.) 40.0
f_s (Total)	(k.s.i.)
VR	(k) 55.9



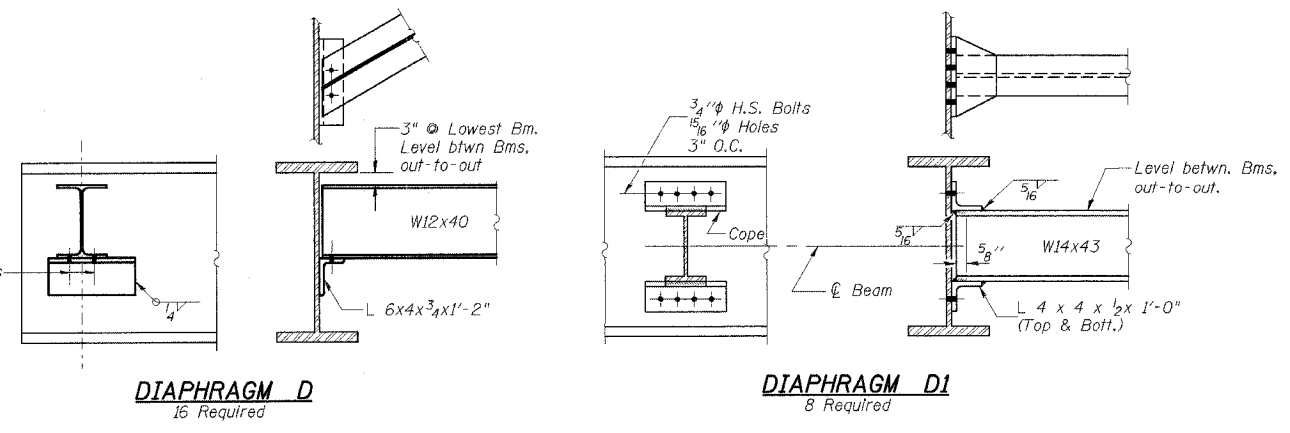
GIRDER ELEVATION
(APPROACH SPAN 1 GIRDER SHOWN. APPROACH SPAN 3 GIRDER OPPOSITE HAND)

INTERIOR GIRDER REACTION TABLE

	W. Abut.
R_R	(k) 30.6
R_L	(k) 43.3
$Imp.$	(k) 16.2
R (Total)	(k) 90.1

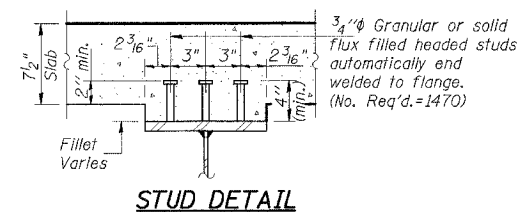
I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_s (Total & Overload).
VR is the maximum Live Load + Impact shear range in span.
Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
M_a (Applied Moment) = 1.3[M_R + M_{sL} + s₃(M_L + I)].
M_u is the Full Plastic Moment Capacity for Compact, Braced section.
f_s (Overload) is the sum of the stresses due to M_R + M_{sL} + s₃(M_L + I).
f_s (Total) (Non-compact section) is the sum of the stresses due to 1.3[M_R + M_{sL} + s₃(M_L + I)].

- Notes:**
- Members designated N.T.R. shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).
 - For limits of painting see General Notes on Sheet S-03.
 - For weights of structural steel see General Notes on Sheet S-03.
 - Holes thru web for Abutment Diaphragm reinforcement, see Sheet S-34.



DIAPHRAGM D
16 Required

DIAPHRAGM D1
8 Required



STUD DETAIL

BILL OF MATERIAL
(Two Approach Spans)

Item	Unit	Quantity
Furnishing and Erecting Structural Steel	L Sum	1
Stud Shear Connectors	Each	1470

SHT. S-15 OF 40

REVISIONS	
NAME	DATE

CITY OF DANVILLE, ILLINOIS
HUNGRY HOLLOW ROAD BRIDGE

**STRUCTURAL STEEL FRAMING
PLAN & DETAILS
APPROACH SPANS**

SCALE: DRAWN BY LAR
DATE 12/06/05 CHECKED BY JRH

TENG

TENG & ASSOCIATES, INC.
ENGINEERS AND ARCHITECTS
305 N. WASHINGTON AVE., CHICAGO, IL 60604
TELEPHONE 818-4860

ROSSP
N:\PROJECTS\2005\12-07-2005_131250...N\FRPO05Y.DGN, N:\PROJECTS\2005\12-07-2005_131250...N\FRPO05Y.DGN, N:\PROJECTS\2005\12-07-2005_131250...N\FRPO05Y.DGN, N:\PROJECTS\2005\12-07-2005_131250...N\FRPO05Y.DGN