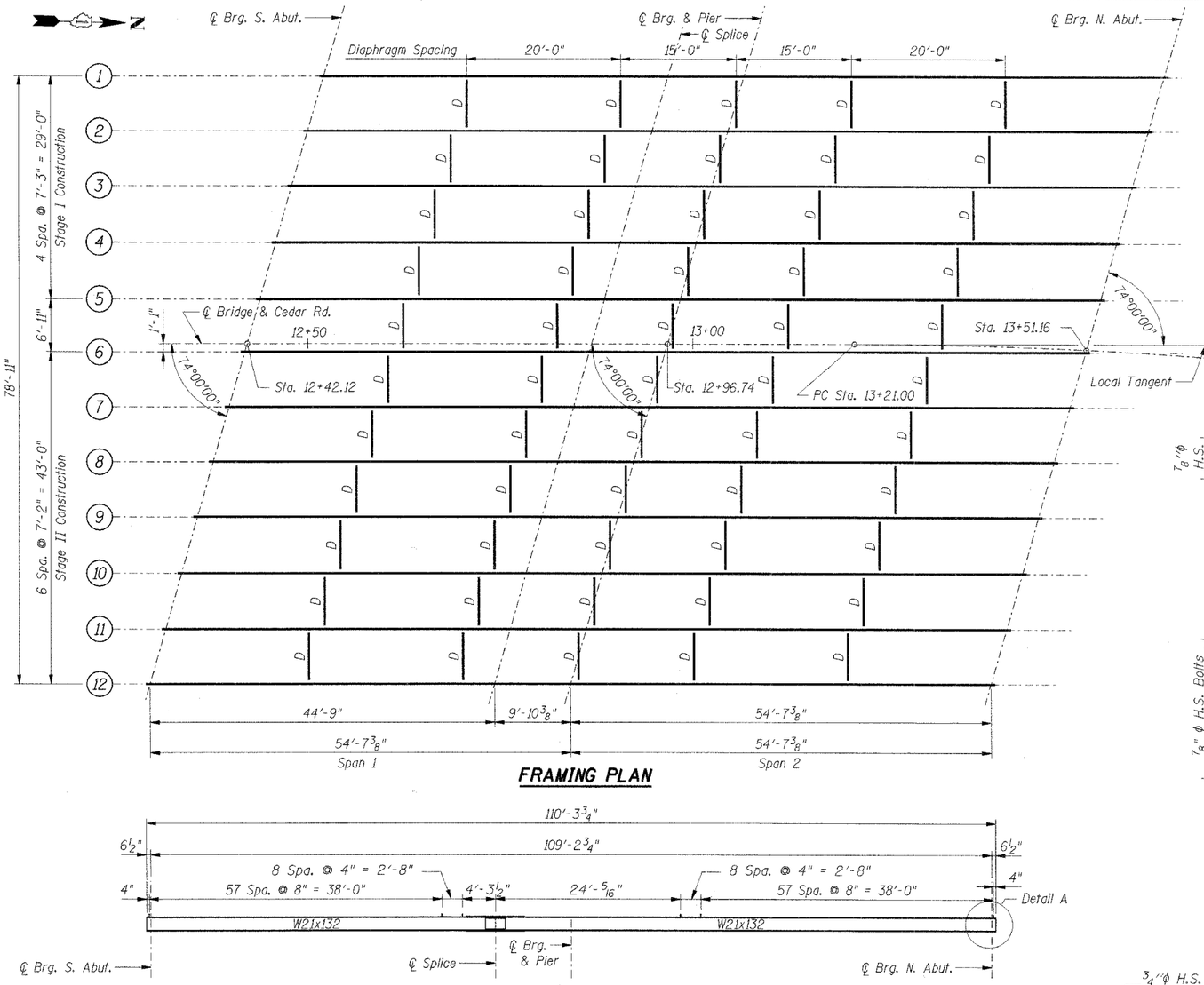
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0369	97-00025-00-BR	WILL	156	123
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO: 83757



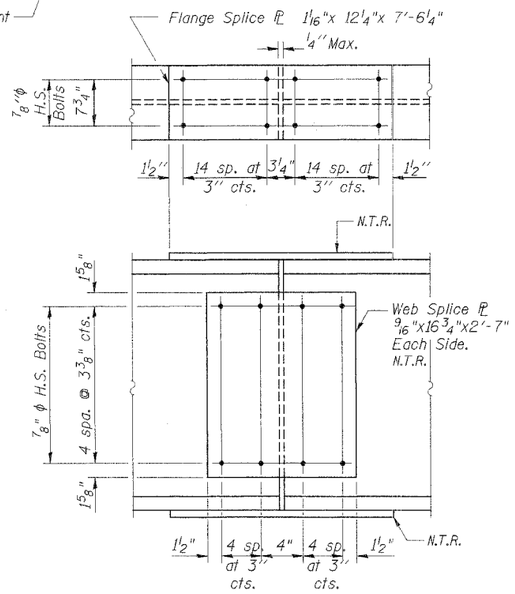
FRAMING PLAN

GIRDER ELEVATION

TOP OF BEAM ELEVATIONS

(For Fabrication only)

BEAM	LOCATION ℄ Brg S. Abut.	℄ Splice	Pier	℄ Brg N. Abut.
1	632.171	632.129	632.151	632.273
2	632.090	631.977	631.984	632.018
3	632.015	631.832	631.823	631.769
4	631.947	631.694	631.668	631.525
5	631.884	631.562	631.520	631.287
6	631.832	631.442	631.384	631.065
7	631.783	631.324	631.250	630.841
8	631.742	631.212	631.122	630.623
9	631.713	631.107	631.000	630.411
10	631.682	631.008	630.885	630.206
11	631.672	630.916	630.777	630.007
12	631.672	630.830	630.674	629.815



GIRDER SPLICE DETAIL

INTERIOR GIRDER MOMENT TABLE

		0.4 Sp. 1	Pier
Is	(In 4)	3220	3220
Ic(n)	(In 4)	9732	
Ic(3n)	(In 4)	6981	
Ss	(In 3)	295	295
Sc(n)	(In 3)	461	
Sc(3n)	(In 3)	412	
Z	(In 3)		
℄	(K/ft.)	0.837	1.279
M℄	(ft./K)	281.7	440.7
Ms℄	(K/ft.)	0.442	
Ms℄	(ft./K)	107	
M℄	(ft./K)	391.3	191.5
M (Imp)	(ft./K)	122.7	60.0
5/3(M℄+I)	(ft./K)	856.7	419.2
Ma	(ft./K)	1619	1118
Mu	(ft./K)	2154	
fs℄ non-comp	(k.s.i.)	11.45	17.92
fs℄ (comp)	(k.s.i.)	3.11	
fs5/3(℄+I)	(k.s.i.)	22.29	17.04
fs (Overload)	(k.s.i.)	36.86	34.96
fs (Total)	(k.s.i.)		45.45
VR	(K)	40	

INTERIOR GIRDER REACTION TABLE

		S. Abut.	Pier
R℄	(K)	26.9	86.0
R℄	(K)	54.3	76.5
Imp.	(K)	12.0	13.2
R (Total)	(K)	93.2	175.7

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total & Overload).

VR is the maximum Live Load + Impact shear range in span.

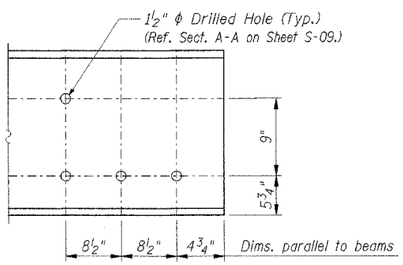
Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment)=1.3[M℄ + Ms℄ +5/3(M℄ + I)].

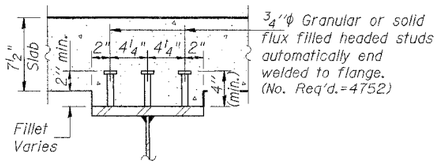
Mu is the Full Plastic Moment Capacity for Compact, Braced section.

fs (Overload) is the sum of the stresses due to M℄ + Ms℄ +5/3(M℄ + I).

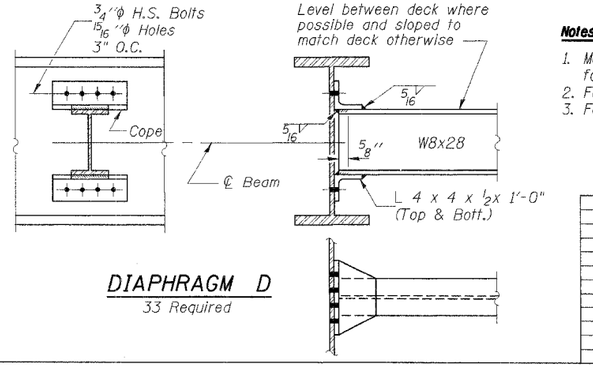
fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[M℄ + Ms℄ +5/3(M℄ + I)].



DETAIL A



STUD DETAIL



DIAPHRAGM D

33 Required

BILL OF MATERIAL

Item	Unit	Quantity
Furnishing and Erecting Structural Steel	L. Sum	1
Stud Shear Connectors	Each	4752

Notes:

1. Members designated N.T.R. shall conform to the Supplemental Requirements for Notch Toughness (Zone 2).
2. For limits of painting, see Note 15 on Sheet S-02.
3. For weights of structural steel, see Note 3 on Sheet S-02.

SHT. S-14

REVISIONS NAME	DATE

VILLAGE OF NEW LENOX
F.A.U. (0369) CEDAR ROAD OVER HICKORY CREEK
WILL COUNTY

STRUCTURAL STEEL FRAMING PLAN & DETAILS

SCALE: 1/8"=1'-0"
DATE: 07/01/05
DRAWN BY: FZD
CHECKED BY: KPS

TENG
TENG & ASSOCIATES, INC.
ENGINEERS & SCIENTISTS & PLANNERS
105 N. MICHIGAN AVE. CHICAGO, IL 60601
TELEPHONE: 312/616-0300

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