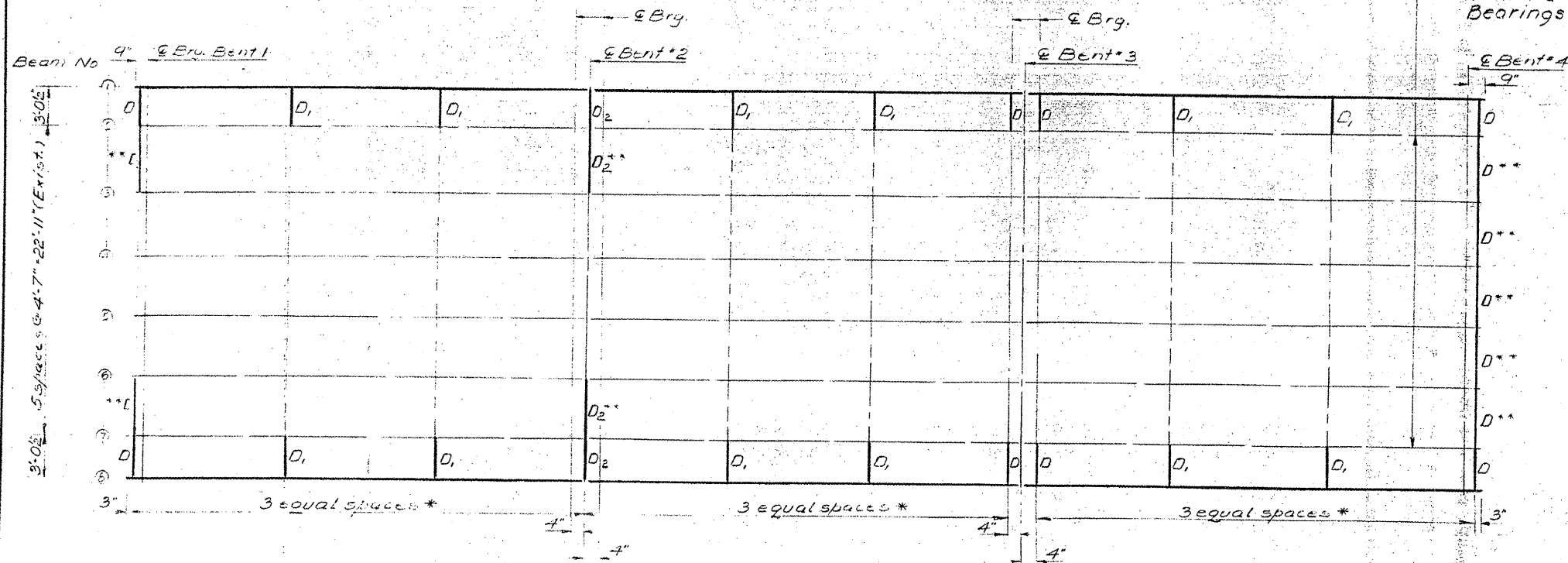


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

VARIOUS ROUTES  
D9 BRIDGE PAINTING FY 09-1  
VARIOUS COUNTIES  
CONTRACT 78093  
FOR INFORMATION ONLY  
SHEET 27 OF 31

Bms. 2 thru 7 shall be jacked and cribbed during reconstruction of Bent 4 and placement of New Bearings See Special Provisions.



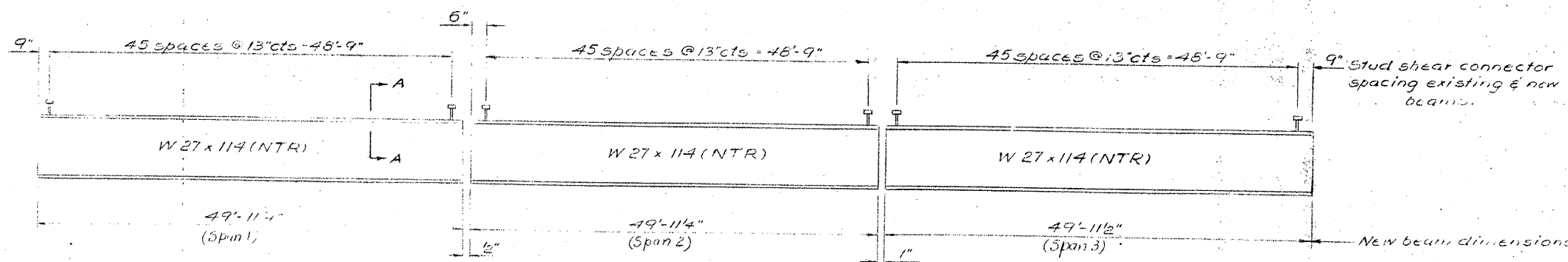
FRAMING PLAN

\* Holes for Diaphragms shall be field drilled to match existing Diaphragm holes  
\*\* Existing Diaphragms to be removed and replaced with new Diaphragms. Cost included with "Remove & Replace Diaphragms".  
All contact surfaces of joints for the diaphragms shall be free of paint or lacquer.

MOMENT TABLE  
(at Midspan)

	Exist. beams	Beam 1&6
$I_s$ (in <sup>4</sup> )	3711	4090
$I_c$ (in <sup>4</sup> )	8389	8396
$I'_c$ (in <sup>4</sup> )	6445	6107
$S_s$ (in <sup>3</sup> )	265.1	300
$S_c$ (in <sup>3</sup> )	366.2	398.2
$S'_c$ (in <sup>3</sup> )	331.4	356.1
$Q$ (K/ft)	.537	.423
$M_Q$ (I-K)	164	129
$f_s$ (Non-Comp) (ksi)	7.4	5.2
$S_Q$ (K/ft)	.05	.05
$M_{SQ}$ (I-K)	15	15
$f_s$ (Superimposed) (ksi)	.5	.5
$M_L$ (I-K)	308	308
$M_{imp}$ (I-K)	89	89
$M_L + imp$ (I-K)	397	397
$f_s$ (live load) (ksi)	13.0	12.0
$f$ (total stress) (ksi)	20.9	17.7
$VR$ (K)	37.7	37.7

$I_c$  &  $S_c$  are the section modulus and moment of inertia of the composite section (where the modular Ratio = 1, used in computing  $f_s$  (Non-Comp) and  $f_s$  (Live Load)).  
 $I'_c$  &  $S'_c$  are the section modulus and moment of inertia of the composite section (where the modular Ratio = 30, used in computing  $f_s$  (Superimposed)).

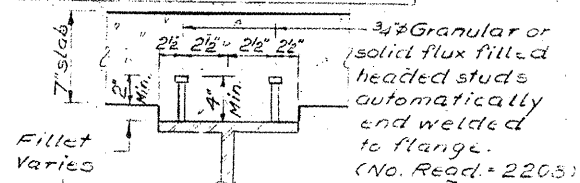


ELEVATION

TOP OF FLANGE ELEVATIONS (FOR FABRICATION PURPOSES ONLY)

Location Girders	E Brg. Bent #1	E Brg. Bent #2		E Brg. Bent #3		E Brg. Bent #4
		Span 1	Span 2	Span 2	Span 3	
1	385.22	385.30	385.30	385.30	385.30	385.33
5	385.22	385.30	385.30	385.30	385.30	385.33

The main load carrying members of steel bridges subject to tensile stresses shall conform to the Supplemental Requirements in Note: Toughness (Table 2). The tensile members are the beams and are designated by NTR.



SECTION A-A

REACTION TABLE  
(Beams 1&6)

	Bent 1&4	Bent 2&3
$R_Q$ (K)	11.7	11.7
$R_L$ (K)	29.2	29.2
$R_{IMP}$ (K)	8.5	8.5
$R_{TOTAL}$ (K)	49.4	49.4

REACTION TABLE  
(Existing Beams)

	Bent 1&4	Bent 2&3
$R_Q$ (K)	14.5	14.5
$R_L$ (K)	29.2	29.2
$R_{IMP}$ (K)	8.4	8.4
$R_{TOTAL}$ (K)	52.1	52.1

STRUCTURAL STEEL  
SPANS 1, 2 & 3

F.A. RTE. 857-SECTION 101 BR-2

WHITE COUNTY

STA. 268 + 25.75

DESIGNED	Steve A. Meyer
CHECKED	
DRAWN	V.H.
CHECKED	

EXAMINED	JAN 13 1991
PASSED	
APPROVED	

BRIDGE NO. 4