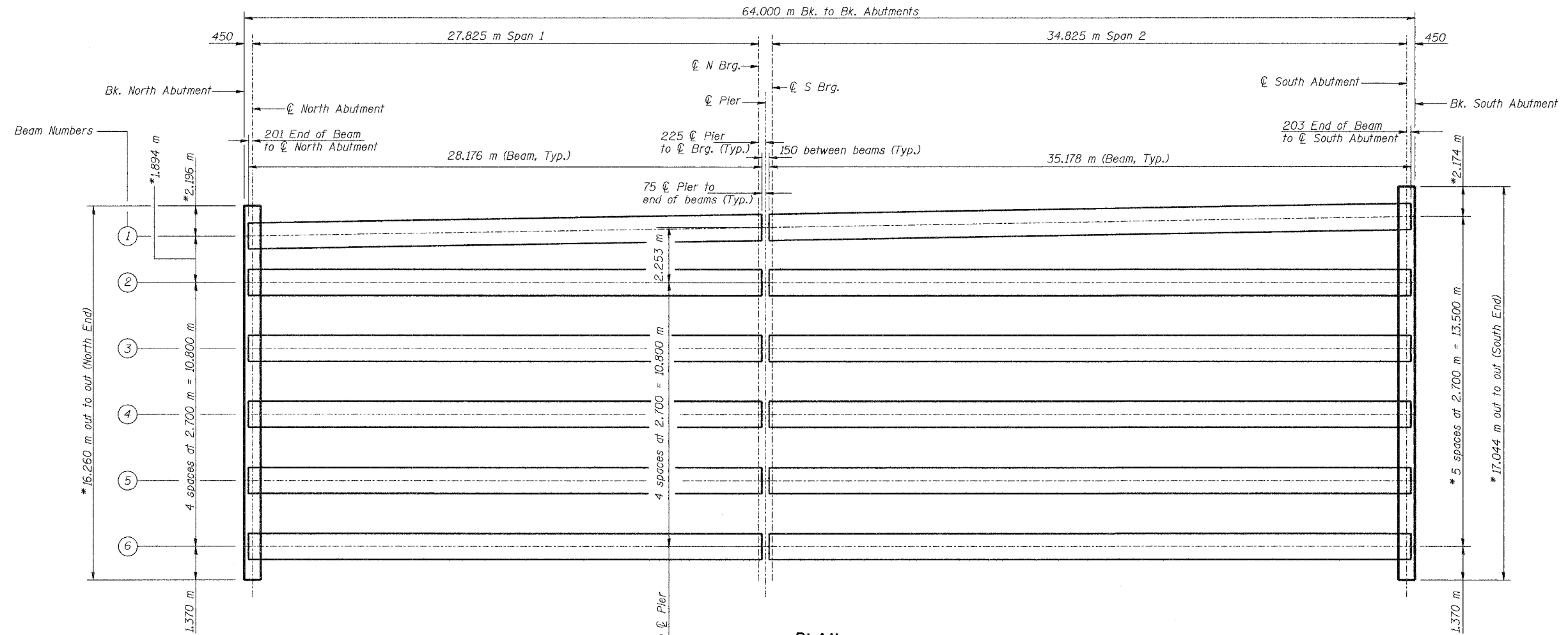


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

68201				
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 74	(90-14HB)BR	TAZEWELL	136	53
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



PLAN

Note: All dimensions are in millimeters (mm) except as noted.

\* Dimensions measured at back of Abutments

INTERIOR BEAM MOMENT TABLE

	0.4 Sp. #1	0.5 Sp. #1	Pier 1	0.5 Sp. #2	0.6 Sp. #2
$I$ ( $10^6 \text{ mm}^4$ )	227218	227218		227218	227218
$I'$ ( $10^6 \text{ mm}^4$ )	447601	447601		447601	447601
$S_b$ ( $10^3 \text{ mm}^3$ )	244426	244426		244426	244426
$S_{b'}$ ( $10^3 \text{ mm}^3$ )	325785	325785		325785	325785
$S_t$ ( $10^3 \text{ mm}^3$ )	252689	252689		252689	252689
$S_{t'}$ ( $10^3 \text{ mm}^3$ )	983988	983988		983988	983988
$M$ (kN·m)	25.14	25.14		25.14	25.14
$M_{\phi}$ (kN·m)	2328	2425		3801	3649
$s_{\phi}$ (kN/m)	7.71	7.71	7.71	7.71	7.71
$M_{s\phi}$ (kN·m)	330	261	994	686	738
$M_L$ (kN·m)	1244	1225	1363	1510	1551
$M$ (Imp) (kN·m)	287	283	299	315	324

INTERIOR BEAM REACTION TABLE

	N. Abut.	Pier 1	S. Abut.
$R_{\phi}$ (kN)	349	786	437
$R_{s\phi}$ (kN)	73	307	107
$R_L$ (kN)	232	393	231
Imp. (kN)	53	86	48
$R$ (Total) (kN)	707	1572	823

$I$  and  $I'$  are the moment of Inertia and composite moment of inertia of the beam section.

$S_b$  and  $S_{b'}$  are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.

$S_t$  and  $S_{t'}$  are the non-composite and composite section modulus for the top fiber of the prestressed beam.

$M_{\phi}$  is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.

$M_{s\phi}$  is the moment due to dead loads on the composite section.

$M_L$  is the moment due to live load on the composite section.

$M$  (Imp) is the moment due to live load impact on the composite section.

FRAMING PLAN

Date	Designed TDN	INTERSTATE 74 AND RAMPS L-1 AND L-4 OVER E. WASHINGTON STREET F.A.I. RTE. 74 SECTION (90-14HB)BR TAZEWELL COUNTY STATION 153+868.540 STRUCTURE NO. 090-0163 (WB)	Sheet No.
Revisions	Drawn BKN		14
	Checked DCS		of 28
	Approved KWB		
Prepared By:	URS		
3040 North University Avenue Decatur, IL 62526		URS Job No. 2100001243.01	