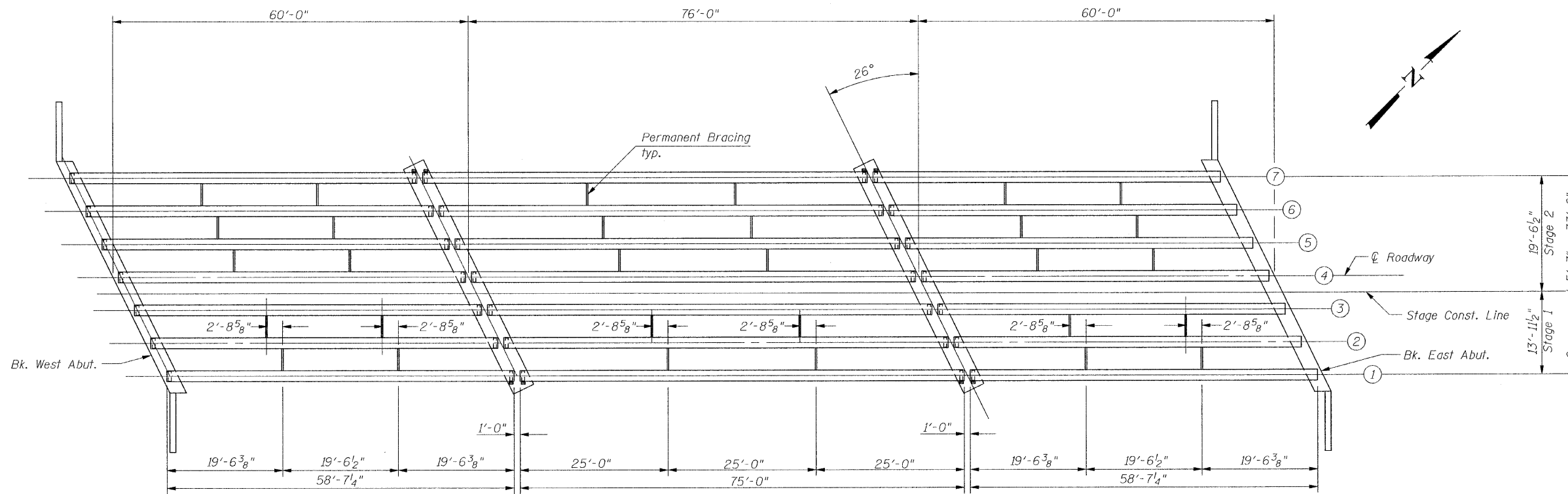


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN

INTERIOR BEAM REACTION TABLE				
	W. Abut.	Pier 1, Span 1 Pier 2, Span 3	Pier 1, Span 2 Pier 2, Span 2	E. Abut.
R_{DC1}	(k)	33.7	43.3	33.7
* R_{DC2}	(k)	2.7	4.7	2.7
* R_{DW}	(k)	5.4	9.5	5.4
* R_{L+IM}	(k)	60.0	88.1	60.0
R_{Total}	(k)	101.8	102.6	101.8

*The total R_{DC2} , R_{DW} and R_{L+IM} are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios. The bearing design at a pier is based on the maximum reactions of either span.

INTERIOR BEAM MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I	(in ⁴)	144,117	144,117	144,117	144,117	144,117
I'	(in ⁴)	372,565	---	372,565	---	372,565
S_b	(in ³)	6,834.1	6,834.1	6,834.1	6,834.1	6,834.1
S_b'	(in ³)	10,979.3	---	10,979.3	---	10,979.3
S_t	(in ³)	5,355.1	5,355.1	5,355.1	5,355.1	5,355.1
S_t'	(in ³)	26,485.9	---	26,485.9	---	26,485.9
$DC1$	(k/')	1.17	1.17	1.17	1.17	1.17
M_{DC1}	(k)	465.9	---	801.3	---	465.9
$DC2$	(k/')	0.128	0.128	0.128	0.128	0.128
M_{DC2}	(k)	28.6	56.2	31.7	56.2	28.6
DW	(k/')	0.257	0.257	0.257	0.257	0.257
M_{DW}	(k)	57.3	112.5	63.4	112.5	57.3
M_{L+IM}	(k)	599.9	644.5	613.3	644.5	599.9

- I : Non-composite moment of inertia of beam section (in⁴).
- I' : Composite moment of inertia of beam section (in⁴).
- S_b : Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_b' : Composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_t : Non-composite section modulus for the top fiber of the prestressed beam (in³).
- S_t' : Composite section modulus for the top fiber of the prestressed beam (in³).
- $DC1$: Un-factored non-composite dead load (kips/ft.).
- M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).
- $DC2$: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW : Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- M_{L+IM} : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

DESIGNED SCD
CHECKED DRB
DRAWN THW
CHECKED SCD



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FRAMING PLAN
STRUCTURE NO. 012-0073

SHEET NO. 16 OF 29 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1707	(BX-B)B-1	CLARK	44	25
	CONTRACT NO. 74169				
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					