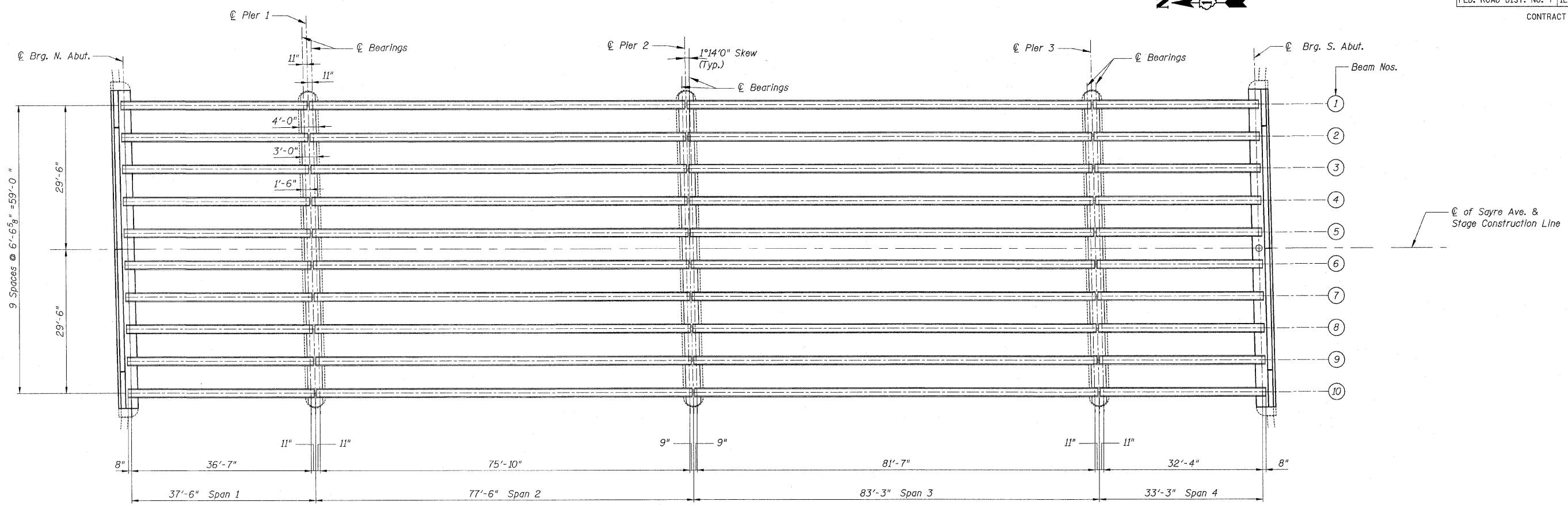


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1414B	COOK	74	40
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60384				



FRAMING PLAN

		0.4 Span 1	Pier 1	0.5 Span 2	Pier 2	0.5 Span 3	Pier 3	0.6 Span 4
<i>I</i>	(in ⁴)	144,117		144,117		144,117		144,117
<i>I'</i>	(in ⁴)	382,797		382,797		382,797		382,797
<i>S_b</i>	(in ³)	6,834		6,834		6,834		6,834
<i>S_b'</i>	(in ³)	11,054		11,054		11,054		11,054
<i>S_t</i>	(in ³)	5,355		5,355		5,355		5,355
<i>S_t'</i>	(in ³)	28,628		28,628		28,628		28,628
<i>DL</i>	(k/')	1.228		1.238		1.247		1.228
<i>MDL</i>	(k)	207		929		1,080		163
<i>sDL</i>	(k/')	0.517	0.517	0.517	0.517	0.517	0.517	0.517
<i>MsDL</i>	(k)	13	-185	138	-316	176	-228	-23
<i>MLL</i>	(k)	206	-335	397	-384	423	-383	173
<i>M (Imp.)</i>	(k)	62	-92	98	-93	101	-105	52

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_{DL} is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.

M_{sDL} is the moment due to dead loads on the composite section.

M_{LL} 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.

	North Abut.	Pier 1		Pier 2		Pier 3		South Abut.
		Span 1	Span 2	Span 2	Span 3	Span 3	Span 4	
<i>RDL</i>	(k)	23.2	23.2	48.0	48.0	51.5	51.5	20.6
<i>RSDL</i>	(k)	4.8	16.5	16.5	22.2	22.2	18.0	18.0
<i>RLL</i>	(k)	35.4	24.0	24.0	24.5	24.5	24.8	24.8
<i>Imp.</i>	(k)	10.6	6.6	6.6	6.0	6.0	6.8	6.8
<i>R (Total)</i>	(k)	74.0	70.3	95.1	100.7	104.2	101.1	70.2

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FRAMING PLAN
 FA ROUTE 173 (SAYRE AVENUE) OVER
 INTERSTATE 90 (KENNEDY EXPRESSWAY)
 COOK COUNTY STATION 8+02.48
 SECTION 267-1414-15D
 STRUCTURE NO. 016-1104

SCALE: NONE
 DATE: DEC. 2007

DRAWN BY: R. Clinton
 CHECKED BY: G. Hatlestad



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