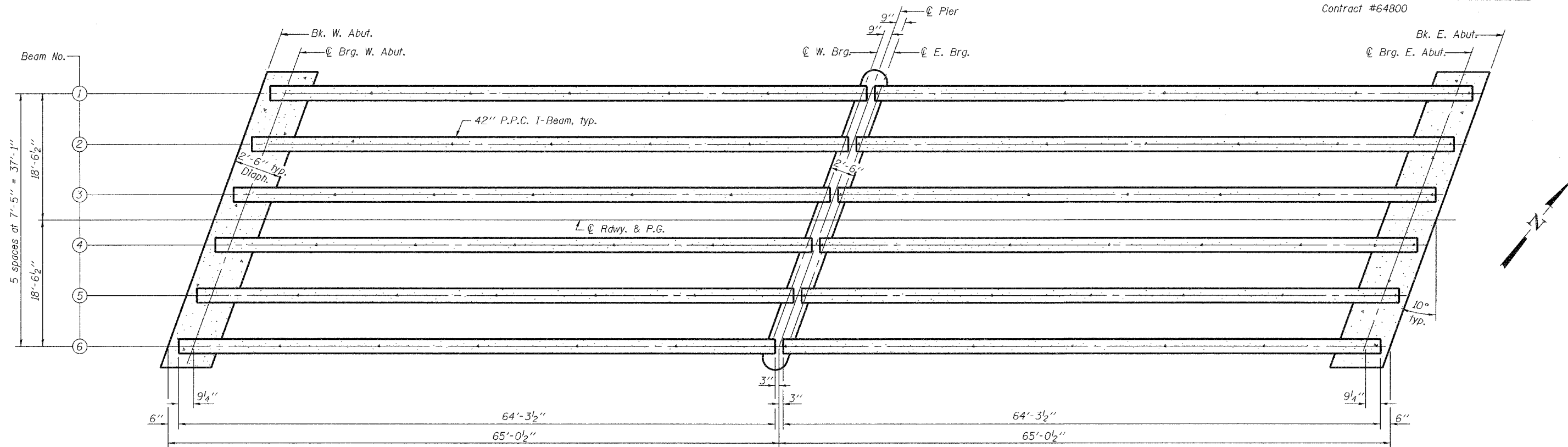


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8
F.A.P. 303	130 BR-4	BOONE		45	18 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #64800



FRAMING PLAN

	0.4 Sp. 1	0.6 Sp. 2	Pier
I	(in ⁴)	90956	————
I'	(in ⁴)	284798	————
S_b	(in ³)	5153	————
S_b'	(in ³)	8812	————
S_t	(in ³)	3736	————
S_t'	(in ³)	29421	————
Q	(k/ft)	1.197	1.197
M_Q	(k)	608	————
s_Q	(k/ft)	0.521	0.521
M_{sQ}	(k)	148	265
M_L	(k)	474	369
M_{Imp}	(k)	123	96

- I : Non-composite moment of inertia of beam section (in.⁴).
- I' : Composite moment of inertia of beam section (in.⁴).
- S_b : Non-composite section modulus for the bottom fiber of the prestressed beam (in.³).
- S_b' : Composite section modulus for the bottom fiber of the prestressed beam (in.³).
- S_t : Non-composite section modulus for the top fiber of the prestressed beam (in.³).
- S_t' : Composite section modulus for the top fiber of the prestressed beam (in.³).
- Q : Un-factored non-composite dead load (kips/ft.).
- M_Q : Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
- s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- M_{sQ} : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- M_L : Un-factored live load moment on the composite section (kip-ft.).
- M_{Imp} : Un-factored moment due to impact on the composite section (kip-ft.).

	Abutments	Pier Span 1	Pier Span 2
R_Q	(k)	38.2	38.2
R_{sQ}	(k)	12.5	20.8
R_L	(k)	39.8	26.0
Imp	(k)	10.3	6.8
R (Total)	(k)	100.8	91.8

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

EXAMINED	March 9 2007	Thomas J. Demagala
PASSED		Ralph E. Anderson

FRAMING PLAN
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020