STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
F.A.P. 721	(113BR) BR	DEWITT	81	35	SHEET NO. 10
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		18 SHEETS

Contract #70232

INTERIOR BEAM MOMENT TABLE
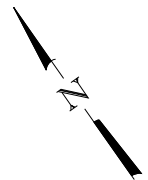
Strand Pattern		0.4 Sp. 1 0.6 Sp. 2	Pier
I	(in^4)	213715	———
I'	(in^4)	477988	———
S_b	(in^3)	8559	———
S_b'	(in^3)	12486	———
S_t	(in^3)	7362	———
S_t'	(in^3)	30377	———
D_ℓ	$(k/')$	1.202	———
M_ℓ	$('k)$	1272	———
s_ℓ	$(k/')$	0.438	0.438
Ms_ℓ	$('k)$	264	471
M_ℓ^L	$('k)$	588	527
$M (Imp)$	$('k)$	135	121

INTERIOR BEAM REACTION TABLE

		Abuts.	Pier Spans 1 & 2
R_ℓ	(k)	55.7	55.7
Rs_ℓ	(k)	15.2	25.4
R_ℓ^L	(k)	32.9	26.2
$Imp.$	(k)	7.6	14.4
$R (Total)$	(k)	111.4	121.7

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

Sb and Sb' are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.

St and St' are the non-composite and composite scetion modulus for the top fiber of the prestressed beam.

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

Ms_ℓ is the moment due to dead loads on the composite section.

M_ℓ^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.
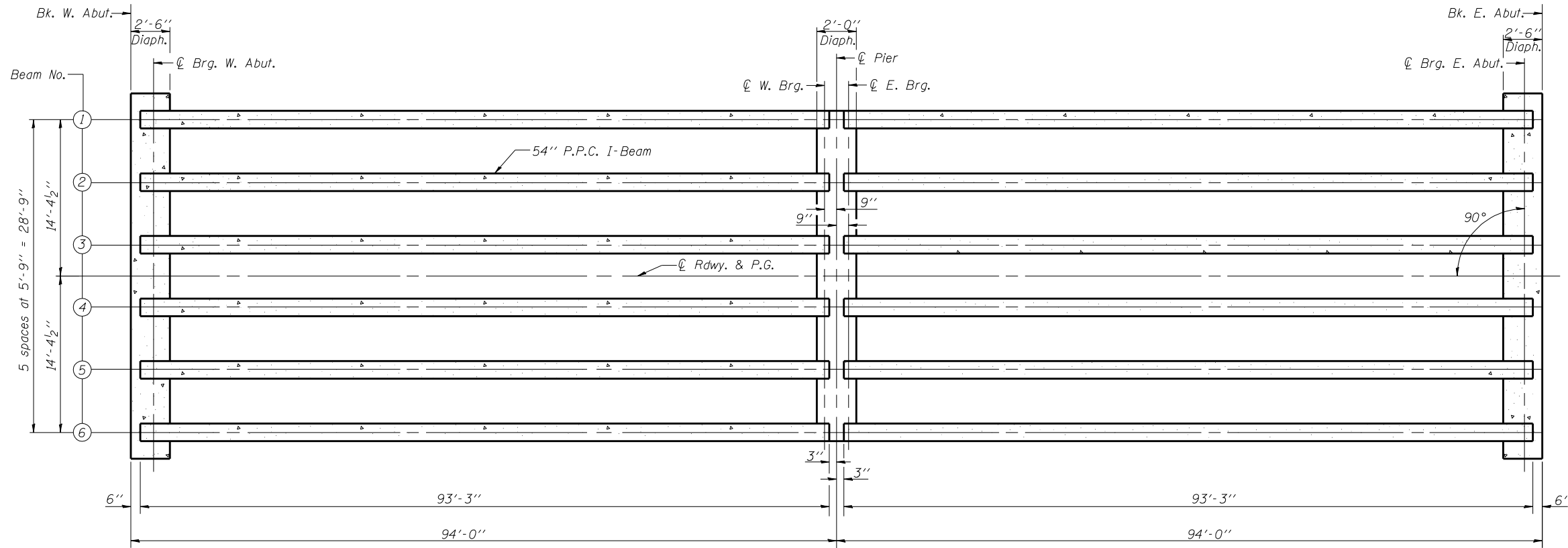
FRAMING PLAN
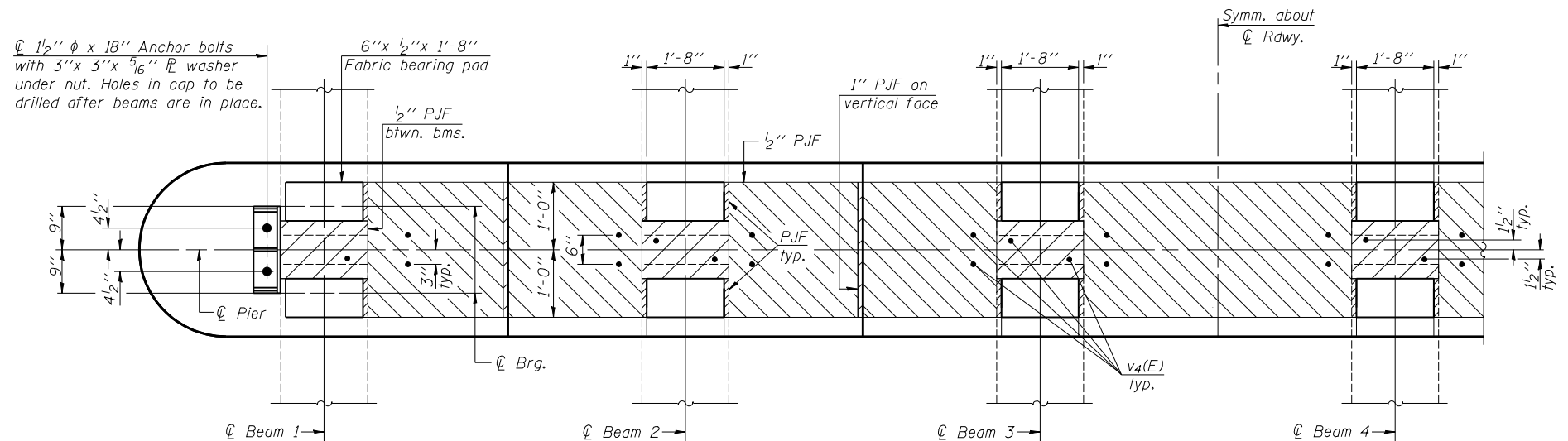
HALF PLAN AT PIER
(Showing fabric bearing pad and PJF details)

DESIGNED	Phillip R. Litchfield
CHECKED	Nick R. Barnett
DRAWN	R. Sommer
CHECKED	P.R.L./N.R.B.

September 6 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

FRAMING PLAN
F.A.P. ROUTE 721 - SECTION (113BR)BR
DEWITT COUNTY
STATION 244+07.00
STRUCTURE NO. 020-0062