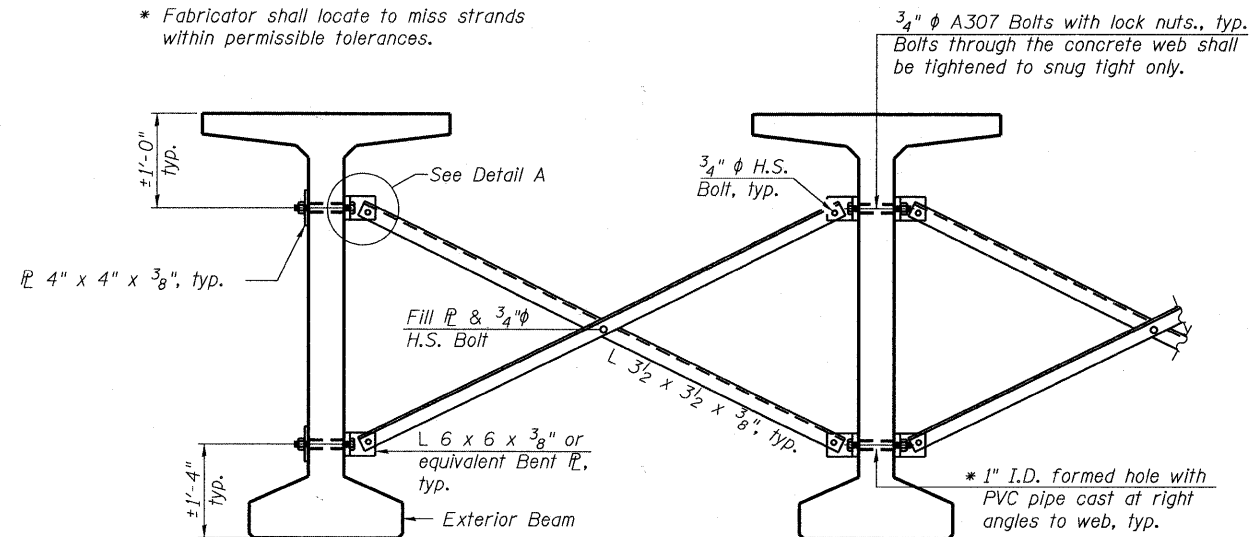
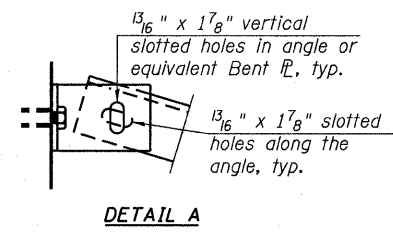


* Fabricator shall locate to miss strands within permissible tolerances.



Notes:

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
 Two hardened washers are required for each set of oversized holes.
 All holes shall be 15/16" φ unless otherwise noted.
 5/16" x 3" x 3" plate washers are required over all slotted holes.
 All bolts shall be galvanized according to AASHTO M232.
 Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
 Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams.



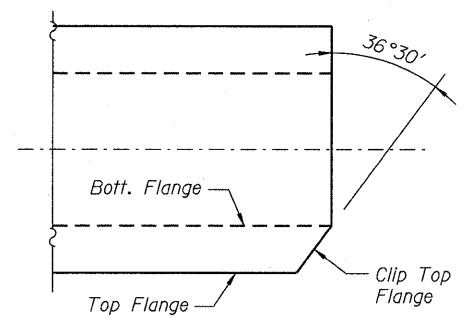
PERMANENT BRACING DETAILS FOR BULB-T BEAMS

EXTERIOR BEAM MOMENT TABLE		0.5 Sp. 1
I	(in ⁴)	545894
I'	(in ⁴)	939240
S _b	(in ³)	14915
S _b '	(in ³)	19075
S _t	(in ³)	15421
S _t '	(in ³)	41267
DC1	(k/')	1.38
M _{DC1}	('k)	3240
DC2	(k/')	0.40
M _{DC2}	('k)	730
DW	(k/')	0.18
M _{DW}	('k)	274
M _ℓ	('k)	985

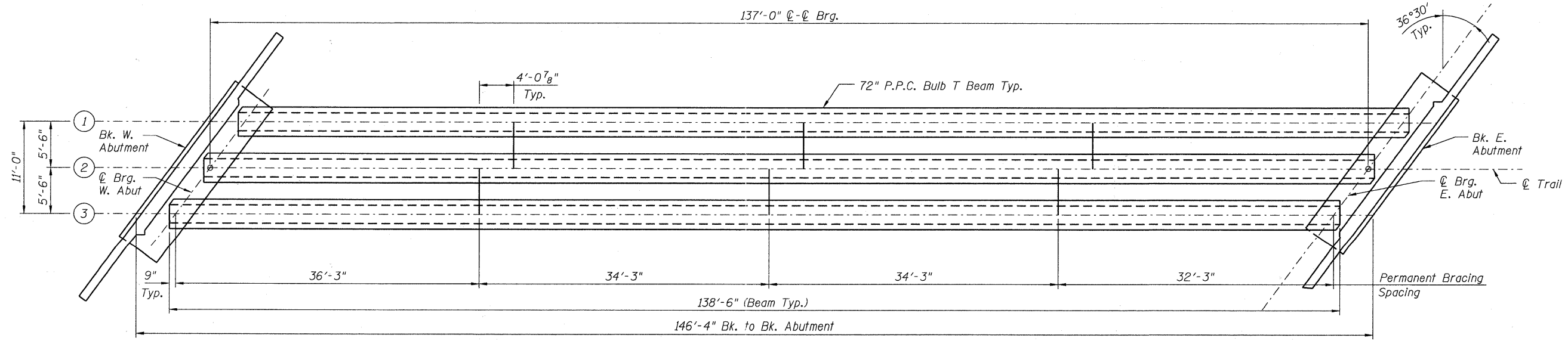
INTERIOR BEAM REACTION TABLE		Abut.
R _{DC1}	(k)	94.6
R _{DC2}	(k)	27.4
R _{DW}	(k)	8.0
R _ℓ	(k)	36.1
R _{Total}	(k)	166.1

Diaphragm weight not included in dead load.

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).
 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: Un-factored live load moment (kip-ft.).



FLANGE DETAIL



PLAN

FILE NAME = w:\756-204\lombard - gwt bridges phase 11\load sheets\structural\PRR\0223122-315-Framing Plan.dgn

	USER NAME = gonzo	DESIGNED SRT	REVISED -	STATE OF ILLINOIS GREAT WESTERN TRAIL UNION PACIFIC RAILROAD	FRAMING PLAN STRUCTURE NO. 022-3122 SHEET NO. 15 OF 37 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED JJI	REVISED -			06-00151-00-BR	DuPAGE	201	95	
	PLOT DATE = 7/26/2011	CHECKED JJI	REVISED -			CONTRACT NO. 63568		ILLINOIS FED. AID PROJECT		