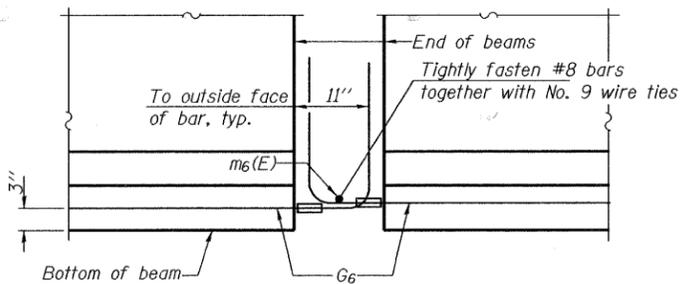


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

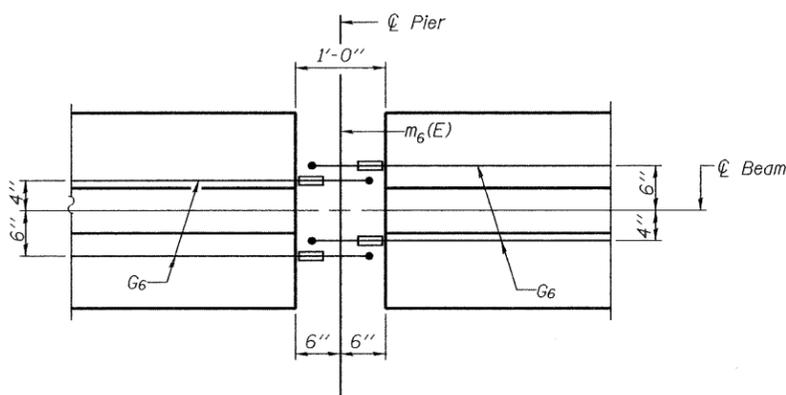
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	KANE	545	334
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET SD-19
OF 34 SHEETS

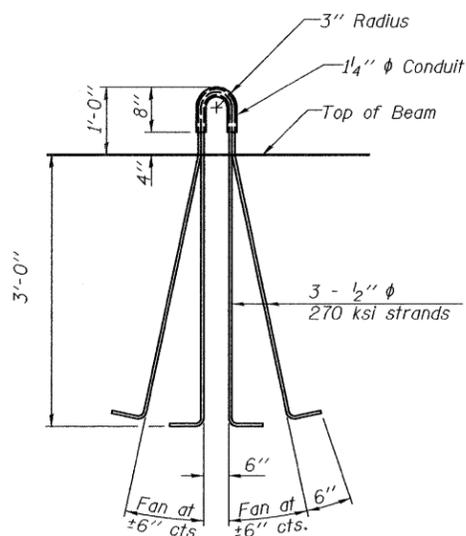
Contract # 63074



ELEVATION OF BEAM AT PIER

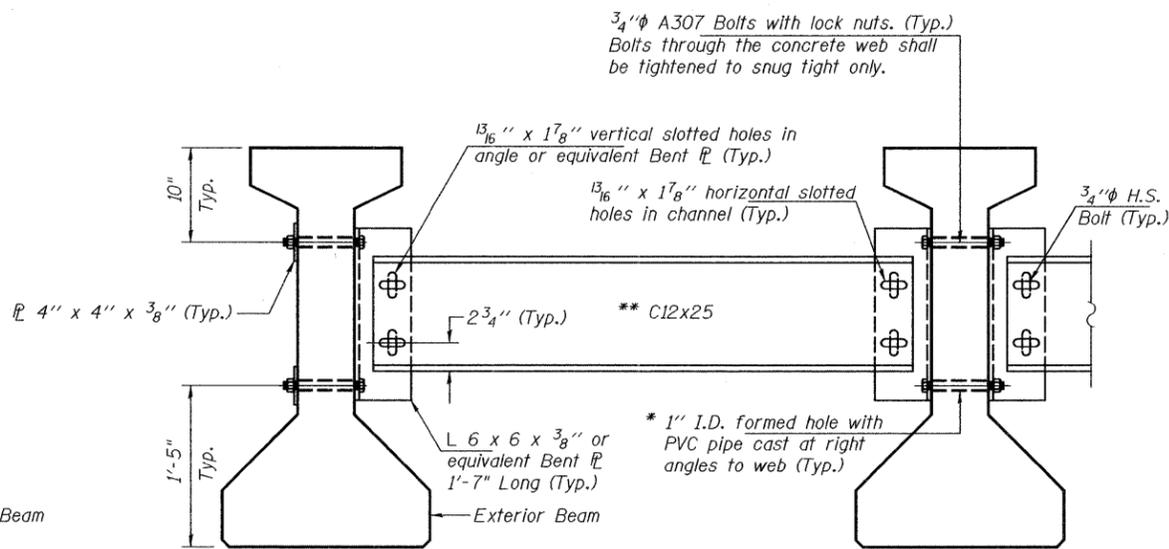


PLAN OF BEAM AT PIER



LIFTING LOOP DETAIL

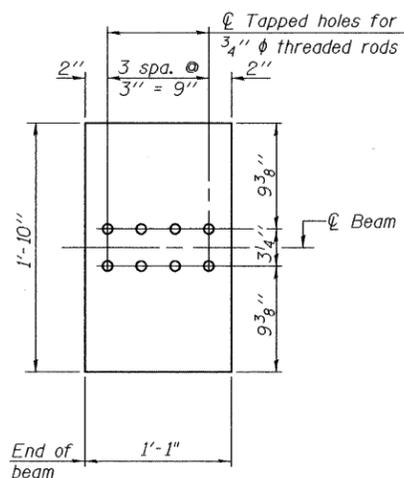
DESIGNED	AJK
CHECKED	AAY
DRAWN	AYR
CHECKED	DMC



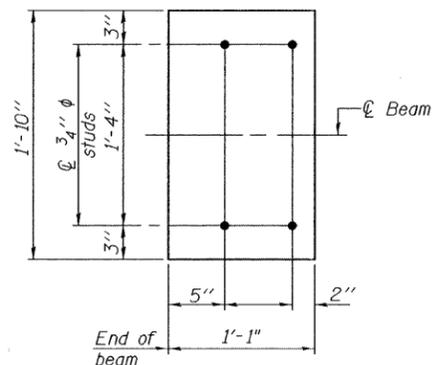
NOTES:

- 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 5/16 inch diameter unless otherwise noted.
- 5/16 inch x 3 inch x 3 inch 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.
- Cost of permanent bracing shall be included in the cost for Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42 inch
- * Fabricator shall locate to miss strands within permissible tolerances.
- ** Alternate C12x30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on lighter section. The alternate, if utilized, shall be provided at no extra cost to the Department.

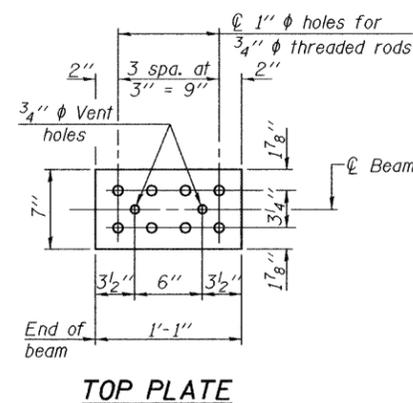
PERMANENT BRACING DETAILS FOR
42" PPC I-BEAMS



BOTTOM PLATE
(Showing threaded rods)



BOTTOM PLATE
(Showing studs)



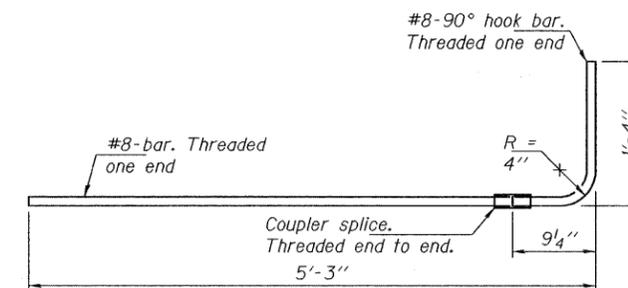
TOP PLATE

BILL OF MATERIAL

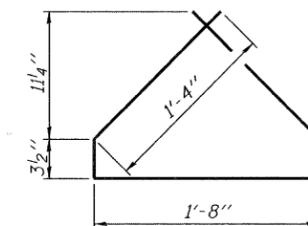
Item	Unit	Stage 1	Stage 2
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	695	973

NOTES

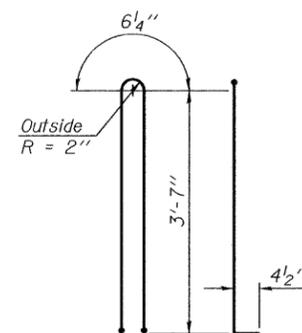
- Inserts for 3/4 inch diameter threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2 inch and the nominal cross-sectional area shall be 0.153 sq. in.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- A minimum 2 1/2 inch diameter lifting pin shall be used to engage the lifting loops during handling.
- Tilt G6 bars when necessary to maintain 1/2 inch clearance.
- The top and bottom plates shall be AASHTO M270 Grade 50.
- The bottom plates and studs shall be galvanized according to AASHTO M111.
- Threaded rods shall be ASTM F 1554 Grade 55.
- The G6 bar assembly shall have the threaded ends oversized to ensure no reduction in cross sectional area after threading. The coupler splice shall be capable of developing 125 percent of the yield strength of the reinforcement bar.



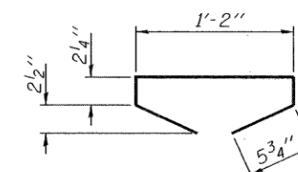
G6 BAR ASSEMBLY



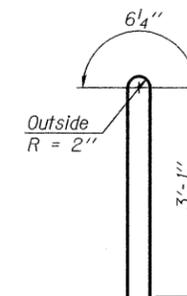
BAR G4



BAR G1



BAR G5



BAR G2

42" PPC I-BEAM DETAILS
IL 25/DUNHAM ROAD OVER THE
EAST BRANCH OF BREWSTER CREEK
F.A.P. 360 - SEC. 06-00214-15-BR
KANE COUNTY
STATION 276+36.96
STRUCTURE NO. 045-2032

alfred benesch & company
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Job # 3944