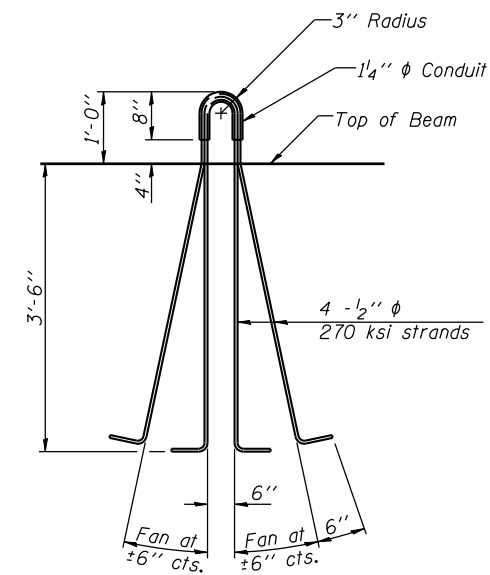
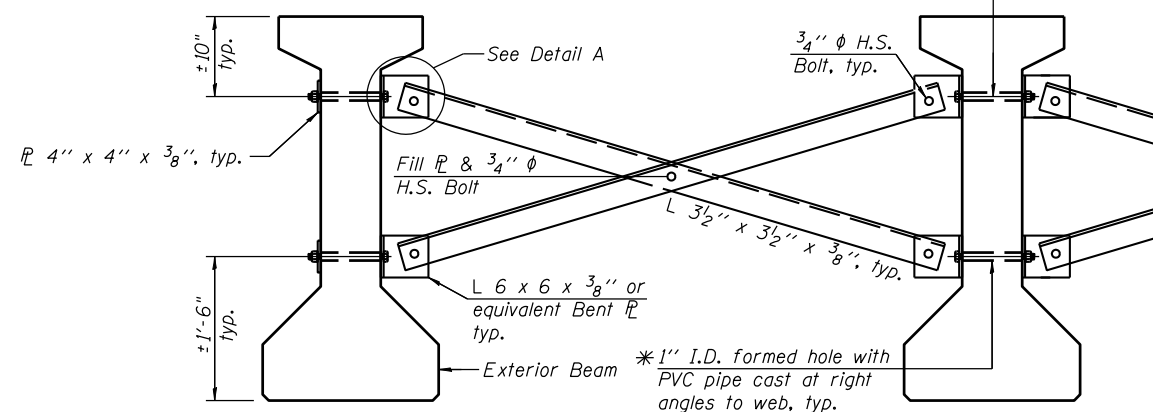


**NOTES**

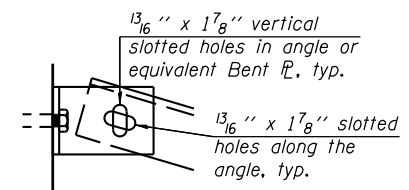
Inserts for 3/4"  $\phi$  threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" 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"  $\phi$  lifting pin shall be used to engage the lifting loops during handling. The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized. Threaded rods shall be ASTM F 1554 Grade 55.

\* Fabricator shall locate to miss strands within permissible tolerances.

3/4"  $\phi$  A307 Bolts with lock nuts, typ. Bolts through the concrete web shall be tightened to snug tight only.

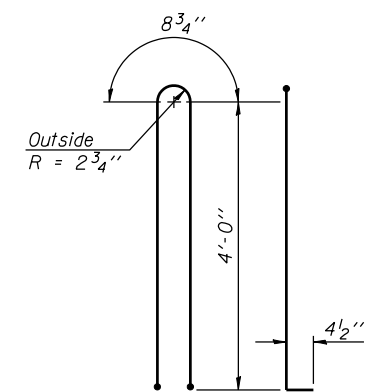


**Notes:**  
 All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted. Two hardened washers are required for each set of oversized holes. All holes shall be 15/16"  $\phi$  unless otherwise noted. 5/16" x 3" x 3" plate washers are required over all slotted 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.

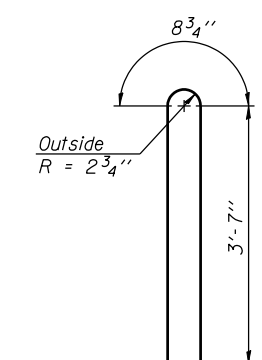


**DETAIL A**

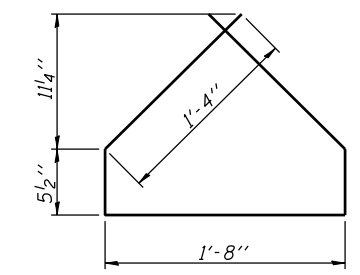
**PERMANENT BRACING DETAILS FOR 48" PPC I-BEAMS**



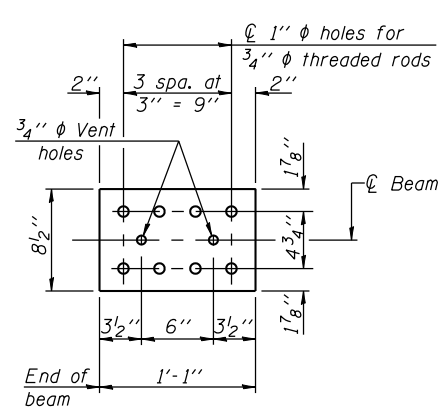
**BAR G1**



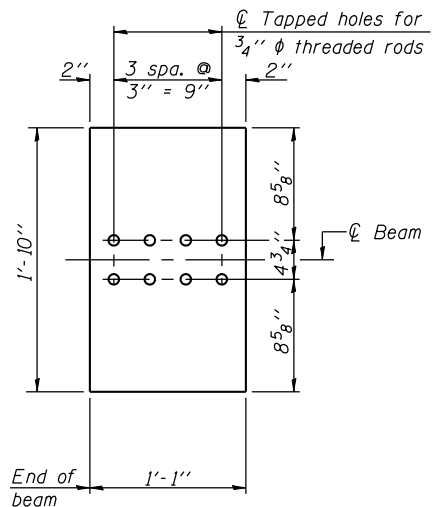
**BAR G2**



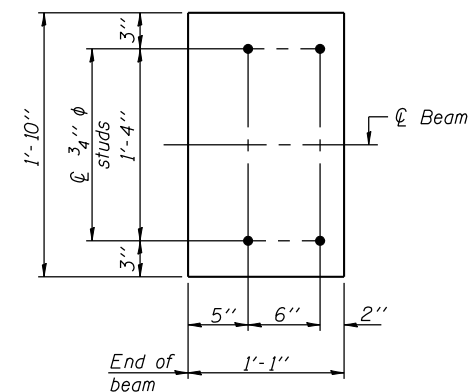
**BAR G4**



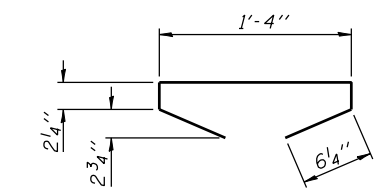
**TOP PLATE**



**BOTTOM PLATE (Showing threaded rods)**



**BOTTOM PLATE (Showing studs)**



**BAR G5**

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48 In.	Ft.	1,081

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