

**NOTES**

Inserts for  $\frac{3}{4}$ "  $\phi$  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  $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

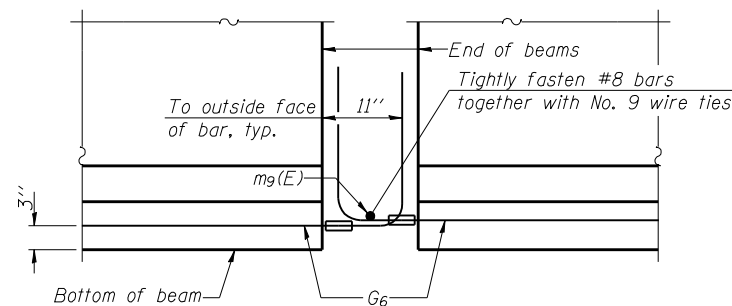
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). A minimum  $2\frac{1}{2}$ "  $\phi$  lifting pin shall be used to engage the lifting loops during handling. Tilt  $G_6$  bars when necessary to maintain  $\frac{1}{2}$ " clearance. The top and bottom plates shall be AASHTO M270 Grade 50.

The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized.

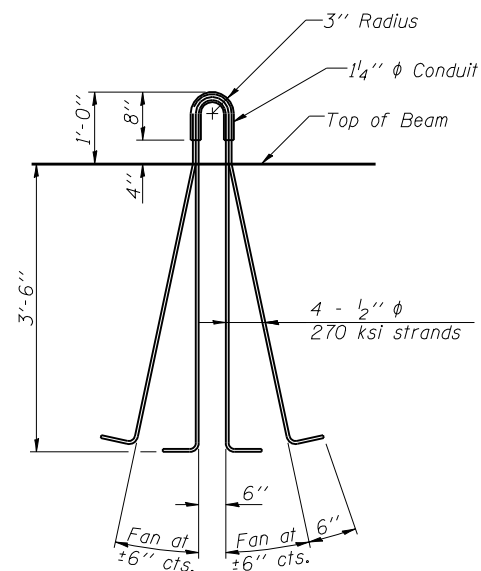
Threaded rods shall be ASTM F 1554 Grade 55.

The  $G_6$  bar assembly shall be capable of developing 125 percent of the yield strength of the grade 60 reinforcement bar components. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.

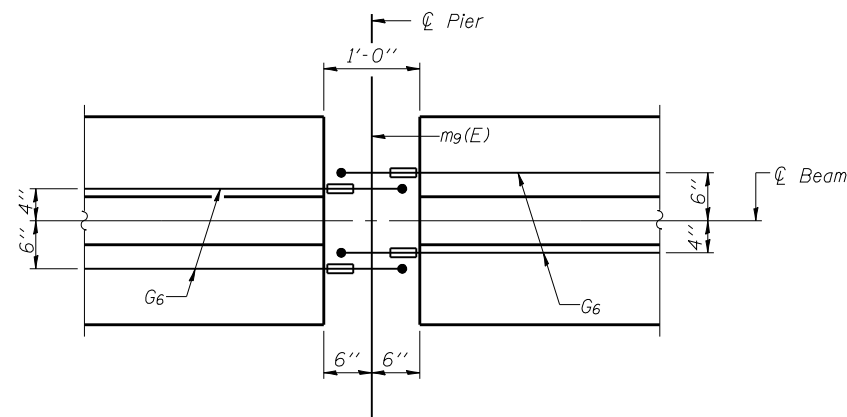
Beams requiring  $G_6$  bar assemblies shall not be released from the fabricator until they have attained 45 days of age or older.



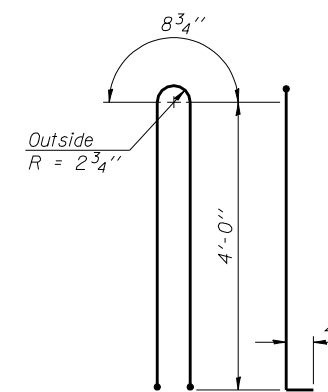
**ELEVATION OF BEAM AT PIER**



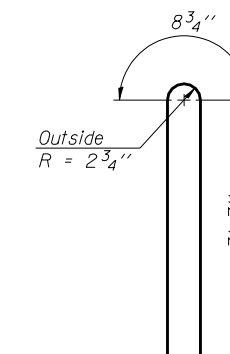
**LIFTING LOOP DETAIL**



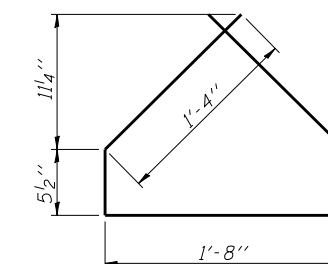
**PLAN OF BEAM AT PIER**



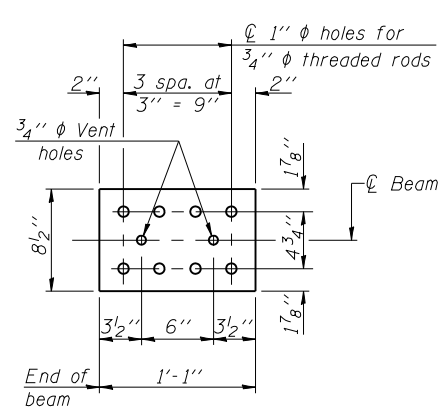
**BAR G1**



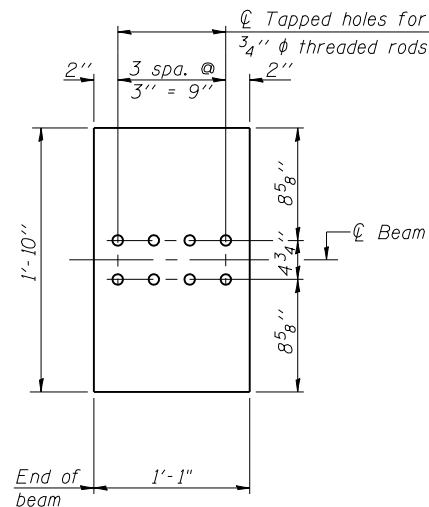
**BAR G2**



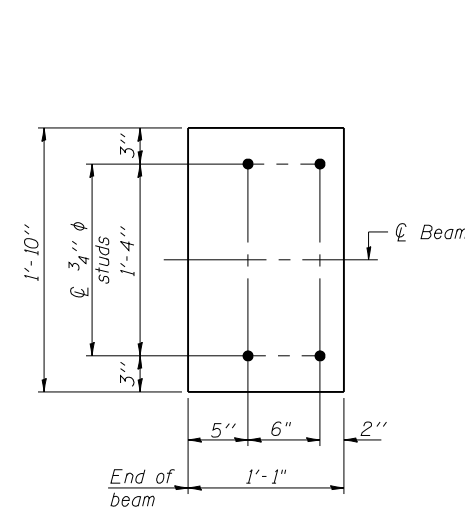
**BAR G4**



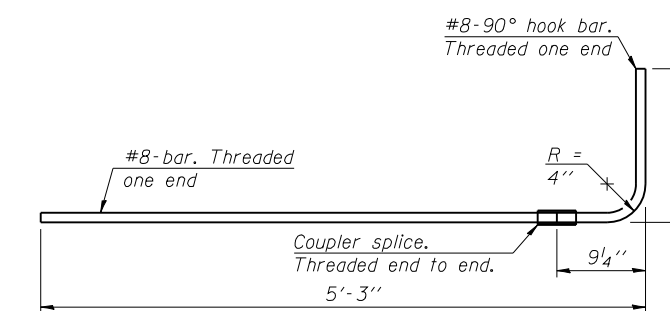
**TOP PLATE**



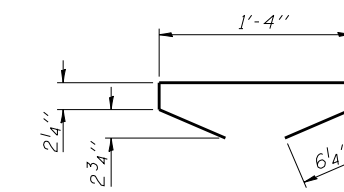
**BOTTOM PLATE**  
(Showing threaded rods)



**BOTTOM PLATE**  
(Showing studs)



**G6 BAR ASSEMBLY**



**BAR G5**

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Ft.	1,728

PRINT DATE: 3/24/2014 12:47:39 PM Z:\10053301\1119 over- Vermilion\pcc\Bridges\Final\Plotsheets\092207-70614-022-PPC\_Details.dgn

PI-4-48D

1-28-11

**EFK Moen, LLC**  
Civil Engineering Design  
331 Salem Place, Suite 225  
Fairview Heights, IL 62208  
Phone 618-206-4250

USER NAME = cdl	DESIGNED - CTW	REVISED -
	CHECKED - CDL	REVISED -
PLOT SCALE = 0:2 ' = 1" IN.	DRAWN - CTW	REVISED -
PLOT DATE = 3/24/2014	DATE - 3/24/2014	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**48" PPC I-BEAM DETAILS (1 OF 2)**  
**STRUCTURE NO. 092-0207**

SHEET NO. 22 OF 33 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
711	116BR-1	VERMILION	84	52
			CONTRACT NO. 70614	
ILLINOIS FED. AID PROJECT				