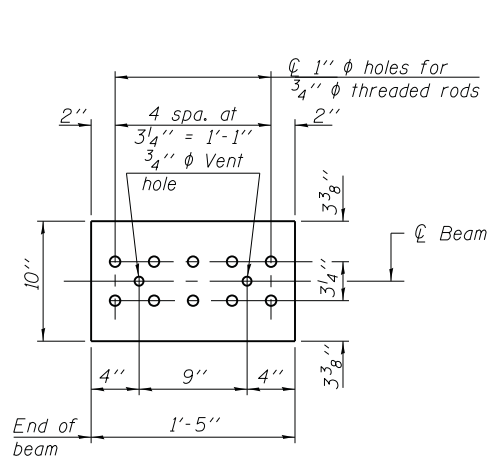


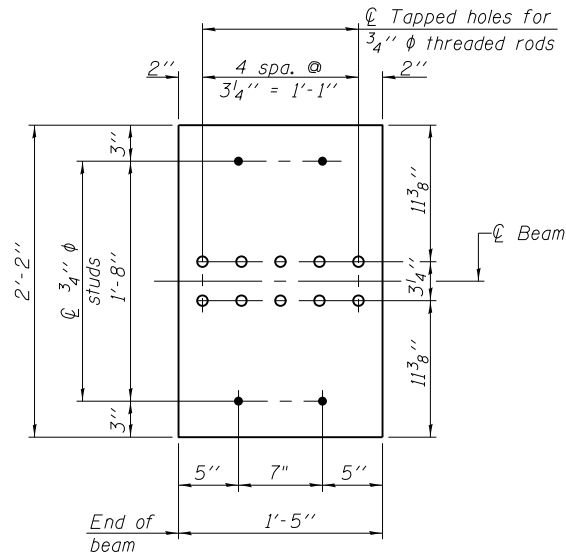
Notes:

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



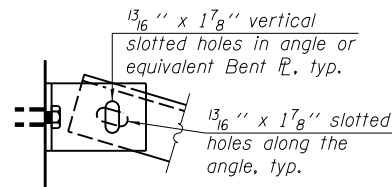
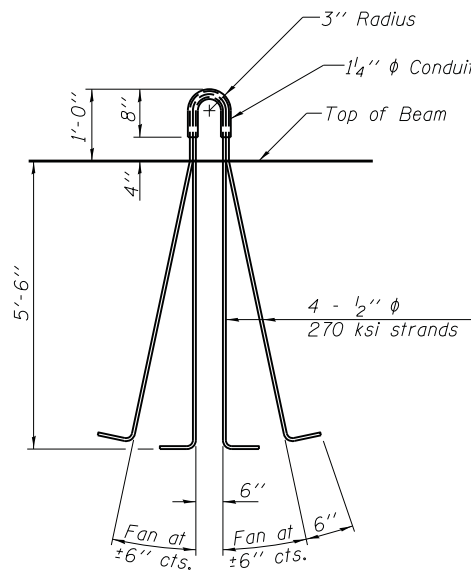
TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.

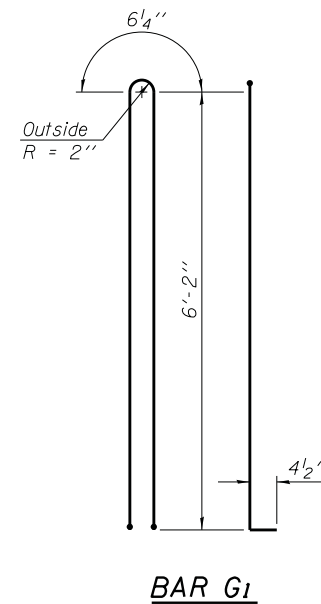
LIFTING LOOP DETAIL



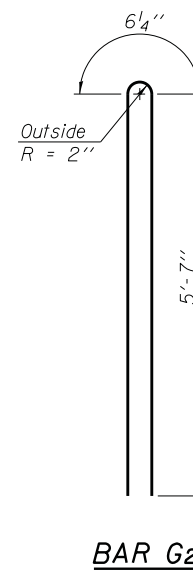
DETAIL A

NOTES

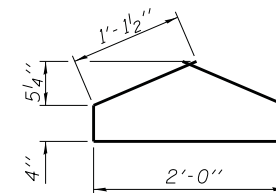
1. Inserts for 3/4" φ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
2. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
3. Reinforcement bars shall conform to ASTM A 706, Grade 60.
4. A minimum 2 1/2" φ lifting pin shall be used to engage the lifting loops during handling.
5. The top and bottom plates shall be AASHTO M270 Grade 50.
6. The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized.
7. Threaded rods shall be ASTM F 1554 Grade 55.



BAR G1



BAR G2



BAR G4

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 72"	Ft.	605.5

FILE NAME = ...\\0480091-68084-019-PPC.T.beam Details.dgn
 PLOT TIME = 4:32:09 PM
 PLOT DATE = 7/30/2014

DESIGNED EV
 DRAWN JCP
 CHECKED PC
 DATE 05 03 2013

REVISED -
 REVISED -
 REVISED -
 REVISED -

SEPSTEIN
 800 WEST FULTON STREET
 CHICAGO, ILLINOIS 60611-1259
 TEL 312 454 9100
 FAX 312 555 1217
 WEB www.sepstein.com

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**72" PPC BULB T-BEAM DETAILS
 STRUCTURE NO. 048-0091**

SHEET NO. S19 OF S25 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	48-(125B)BR, BR-1J	KNOX	131	65
CONTRACT NO. 68B85				
ILLINOIS FED. AID PROJECT				