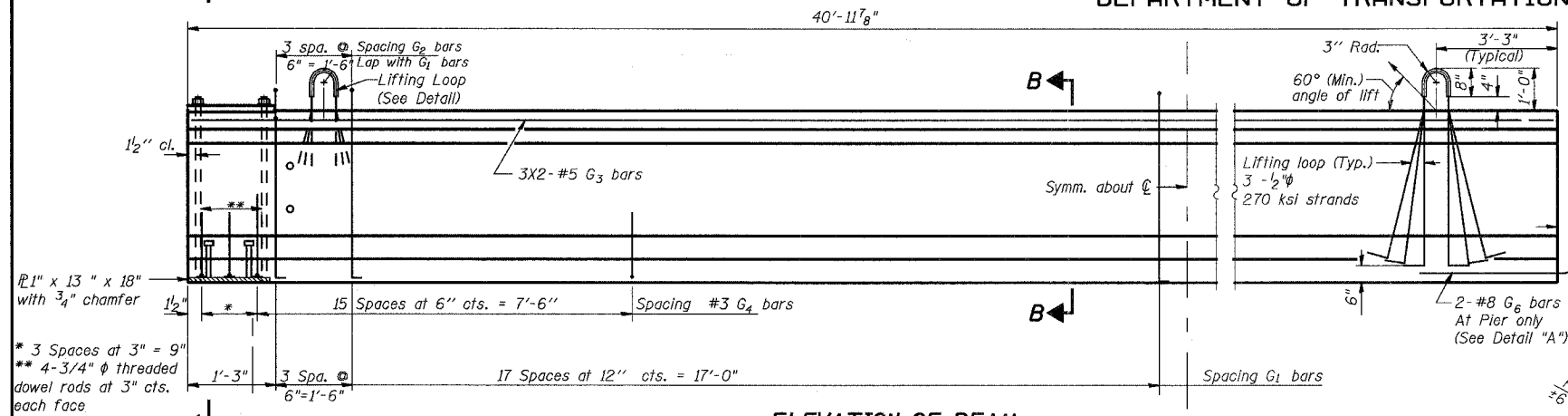


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 351	2008-001VB	COOK	579	429
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

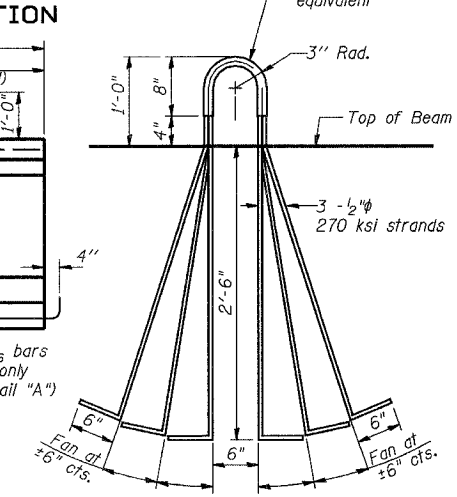
CONTRACT NO. 60E10

SHEET NO. 19
54 SHEETS



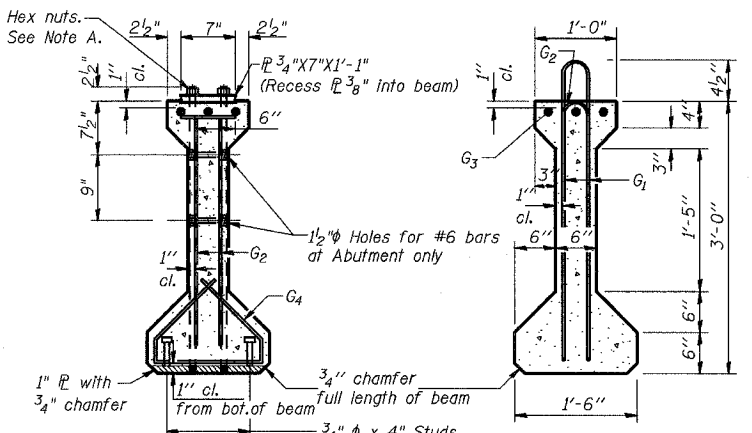
ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)

Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



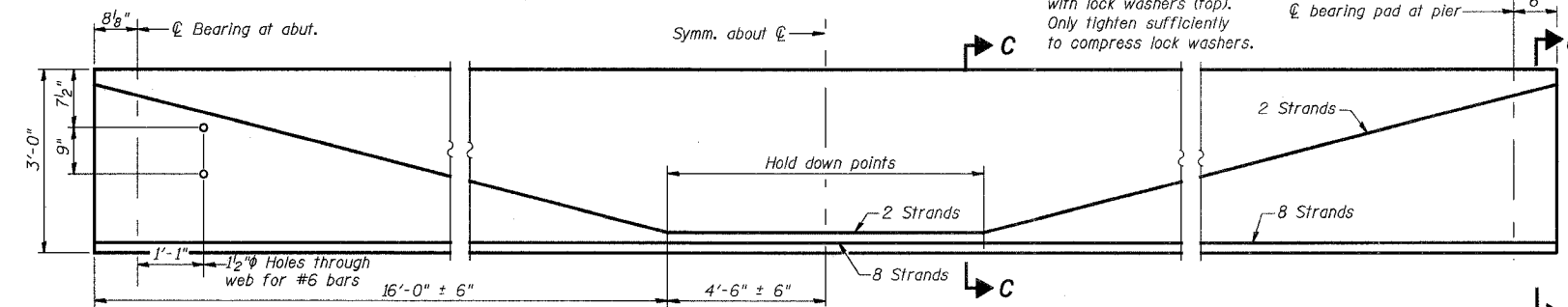
TYPICAL LIFTING LOOP

Lifting Weight of Beam = 15,371#/Beam

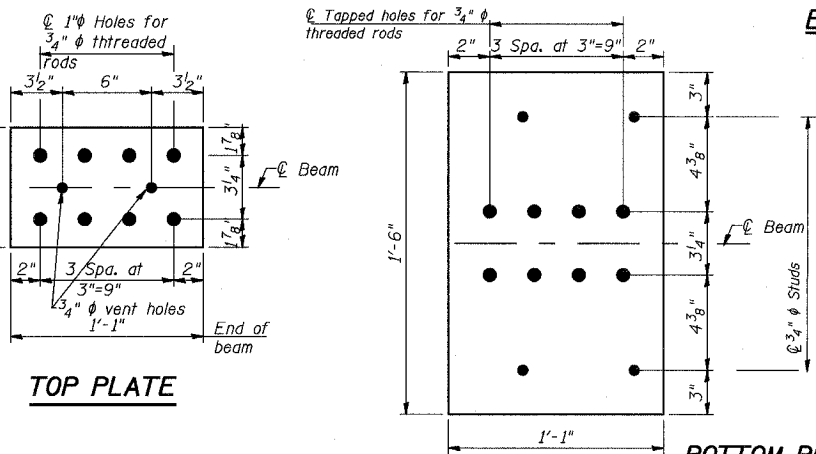


SECTION A-A

SECTION B-B

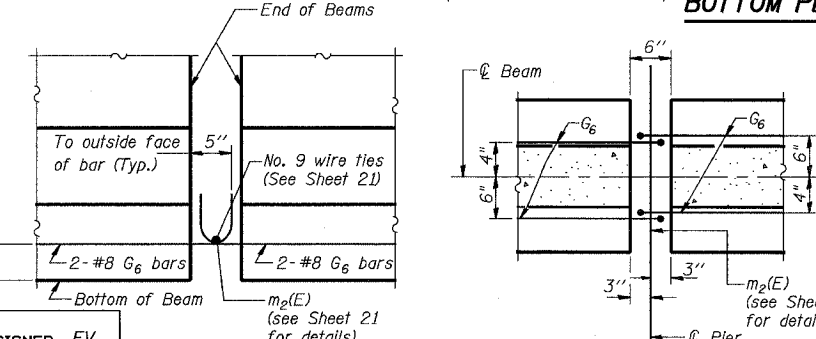


ELEVATION OF BEAM
(Showing Prestressing Steel)



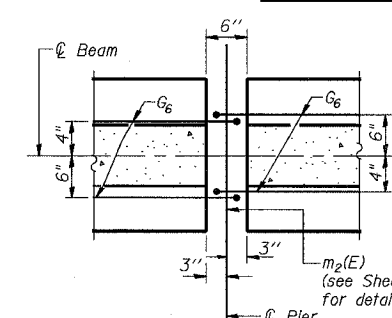
TOP PLATE

BOTTOM PLATE



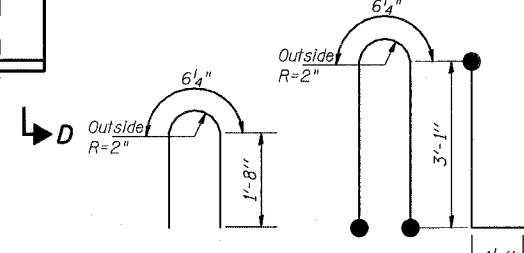
ELEVATION

DETAIL "A"



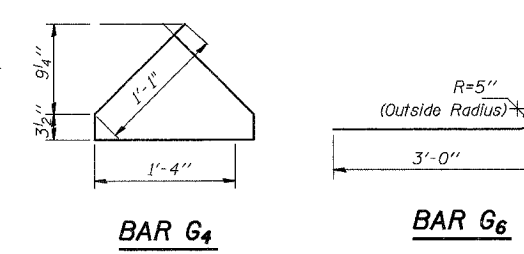
PLAN

- Notes:
1. Inserts for 3/4" φ threaded dowel rods shall be two strut, coil type for interior beams and single coil flared loop type for exterior beams.
 2. Work this Sheet with Sheets 18 and 21.
 3. All embedded plates, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per foot of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36".
 4. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, grade 270.
 5. The nominal diameter shall be 1/2" and the nominal cross-section area shall be 0.153 sq. in..
 6. Non-prestressing steel shall conform to AASHTO Designation M 31 or M322, Grade 60.
 7. Reinforcement bars designated (E) shall be epoxy coated.
 8. Steel for lifting loops shall be 1/2" φ, Grade 270 ksi as shown.
 9. Required compressive strength f'c at 28 days shall be 6000 psi.
 10. Required release strength f'cl shall be 5000 psi.
 11. Min. lap length for #5 bar is 2'-2".
 12. Bars indicated thus 20 x 3- #15 etc. indicates 20 lines of bars with 3 lengths per line.
 13. A minimum 2 1/2" φ lifting pin shall be used to engage the lifting loops during handling.
 14. Cut G6 bars when necessary to maintain 1 1/2" clearance.
 15. The bottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.
 16. Threaded rods shall be ASTM F 1554 Grade 55.
 17. The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of section 587 of the IDOT standard specifications shall be applied to all portions of the I-Beam except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 36 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36".
 18. Beams ends shall be sealed by the producer with an approved sealant. The ends of cut strands shall be treated with zinc dust paint compatible with sealant used for beam end treatment.



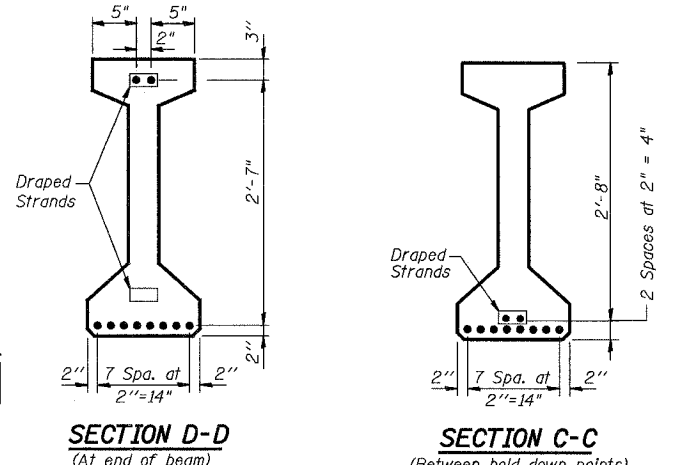
BAR G2

BAR G1



BAR G4

BAR G6



SECTION D-D
(At end of beam)

SECTION C-C
(Between hold down points)

*** BAR LIST**

Bar	No.	Size	Length	Shape
G1	42	#5	7'-6"	U
G2	8	#6	3'-11"	U
G3	6	#5	21'-9"	U
G4	38	#3	4'-1"	△
G6	2	#8	3'-6"	U

* For one beam only.

BILL OF MATERIAL (SN 016-2820 & 2821)

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36 In	Ft.	901.8

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US RTE 6 FROM I-294 TO IL RTE 1
PPC I-BEAM ELEVATION & DETAILS - SPAN 1
STRUCTURES FOR CN INTERMODAL
YARD VEHICLES OVER U.S. RTE. 6 (459TH STREET)
STATION 95+02.14 STRUCTURE NOS. 016-2820 & 016-2821
SCALE: N.T.S. DATE: 9/21/2008

URS 100 South Wacker Drive,
Suite 500
Chicago, IL 60606
(312) 939-1000

3/13/2008 2:52:38 PM C:\17049\869\structures\2820\w.hwl\dwg\prefinal\plans\19-ppcibeam_39\span1.dwg

DESIGNED	EV
CHECKED	NPP
DRAWN	EV
CHECKED	NPP

PI-4-36D 7-15-06