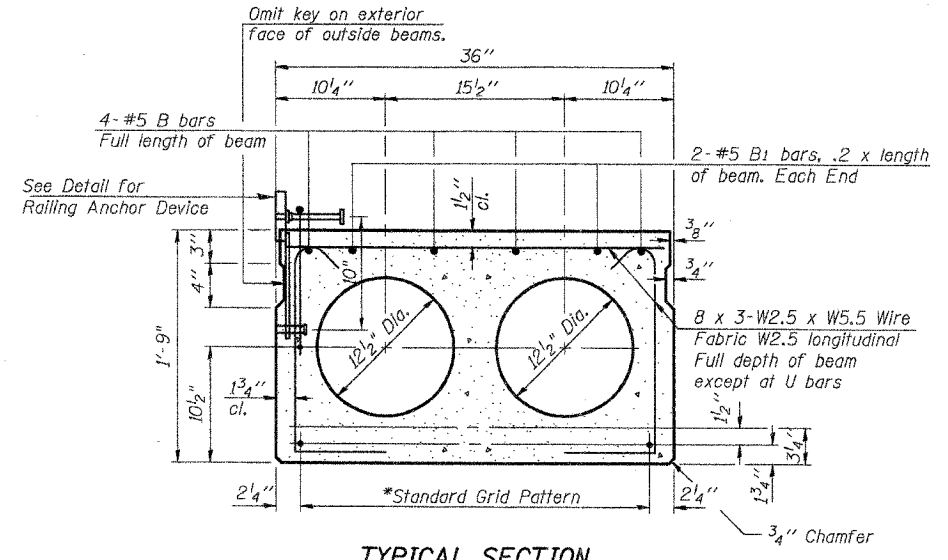


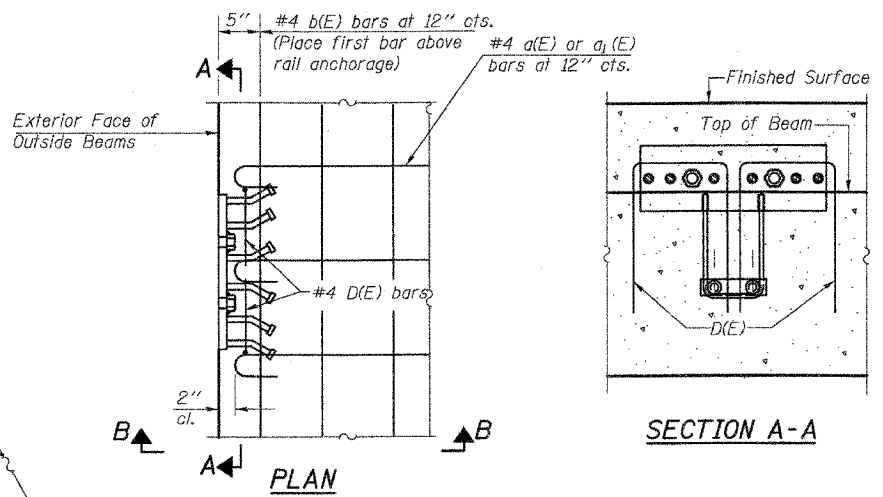
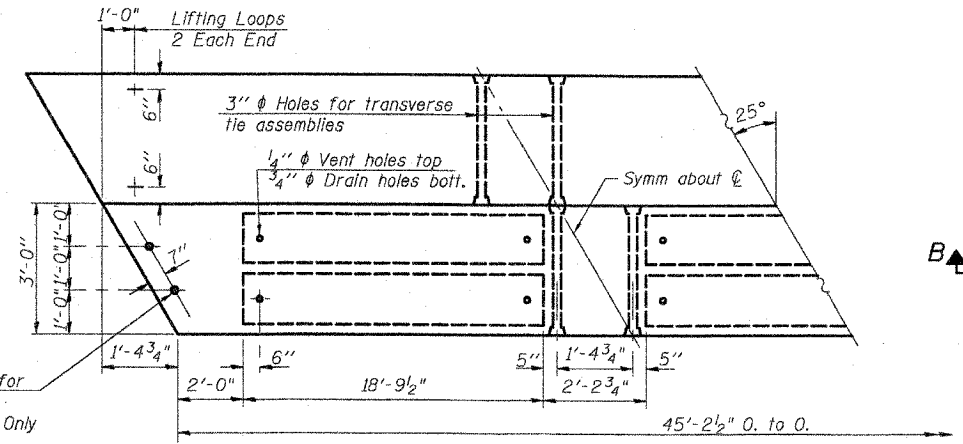
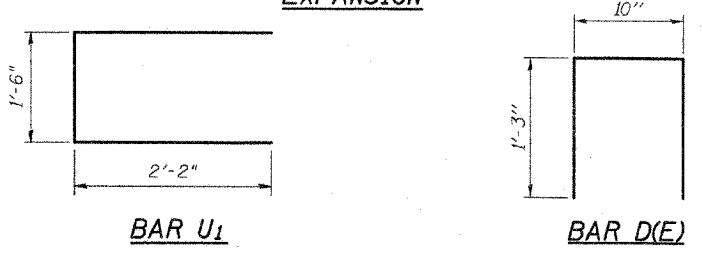
TYPICAL TRANSVERSE TIE ASSEMBLY



TYPICAL SECTION  
 12 - 1/2" diameter Strands, Each Strand Stressed to 30,900 Lbs.  
 4 Strands 1 3/4" up, 8 Strands 3 1/4" up

**\* TRANSVERSE STRAND PLACEMENT GUIDELINES**

- 1) Place strands symmetrically about centerline of beam.
  - 2) The minimum distance from center to center of strands in all directions shall be 2".
  - 3) The minimum clearance from strand to dowel hole shall be 1/2".
  - 4) The minimum clearance from strand to void shall be 1/2".
- Vertical placement of strands shall not be adjusted to satisfy the above guidelines.



RAILING ANCHOR DEVICE DETAIL

**NOTES**

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. Lifting loops shall be 2 - 1/2" diameter 270 ksi strands, as shown. The 1" diameter rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i. The Rail Anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured using the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted. Cost included with Precast Prestressed Concrete Deck Beams. See sheet 4 of 13 for cross section. See sheet 2 of 13 for rail post spacing and sheet 7 of 13 for rail details.

**BILL OF MATERIAL**

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	6103
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Weight of beam = 26000 pounds

ILLINOIS DEPARTMENT OF TRANSPORTATION

SHEET TITLE: BEAM DETAILS

PROJECT: IL ROUTE 146 OVER DUTCH CREEK, FAP ROUTE 885 SECTION 104BR-1 UNION COUNTY STATION 268+27.00 STRUCTURE NUMBER 091-0059

PROJECT NO: 06056-5, DATE: 11/30/07, DRAWN BY: CFC, CHECKED BY: MCB/BD, DRAWING NO: 6

**COOMBE-BLOXDORF P.C.**  
 Engineers / Land Surveyors  
 Springfield, Illinois  
 Design Firm License No. 184-002703

OF 13 SHTS

FILE NAME: ...  
 PLOT SCALE: ...  
 USER NAME: ...