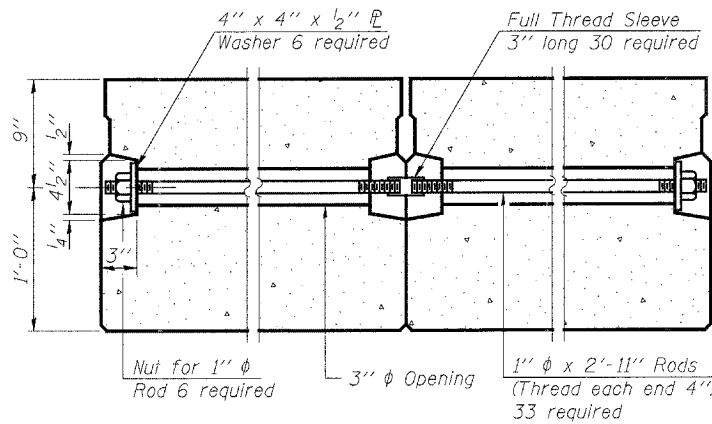
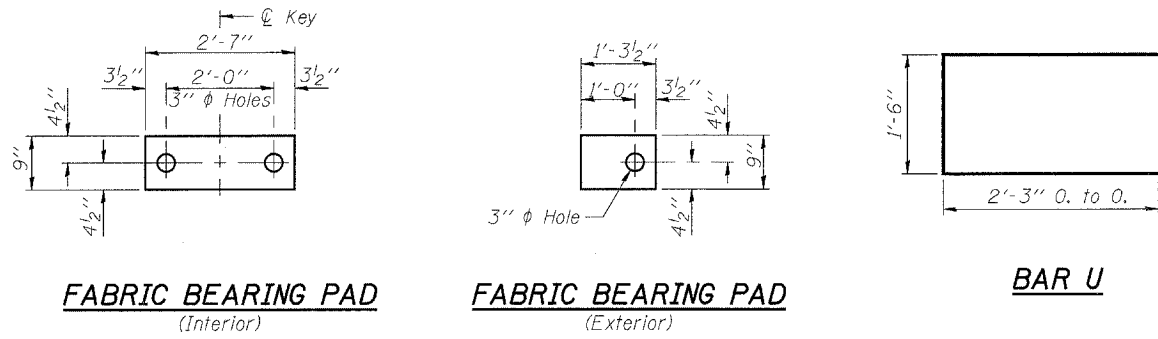
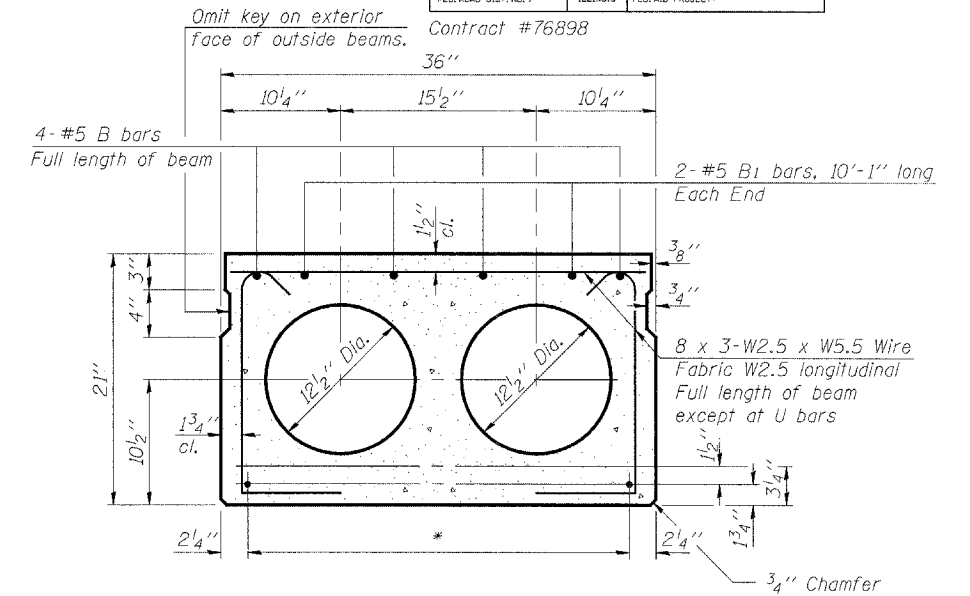


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7
F.A.P. 329	126BR-1	RANDOLPH	27	21	10 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



TYPICAL TRANSVERSE TIE ASSEMBLY



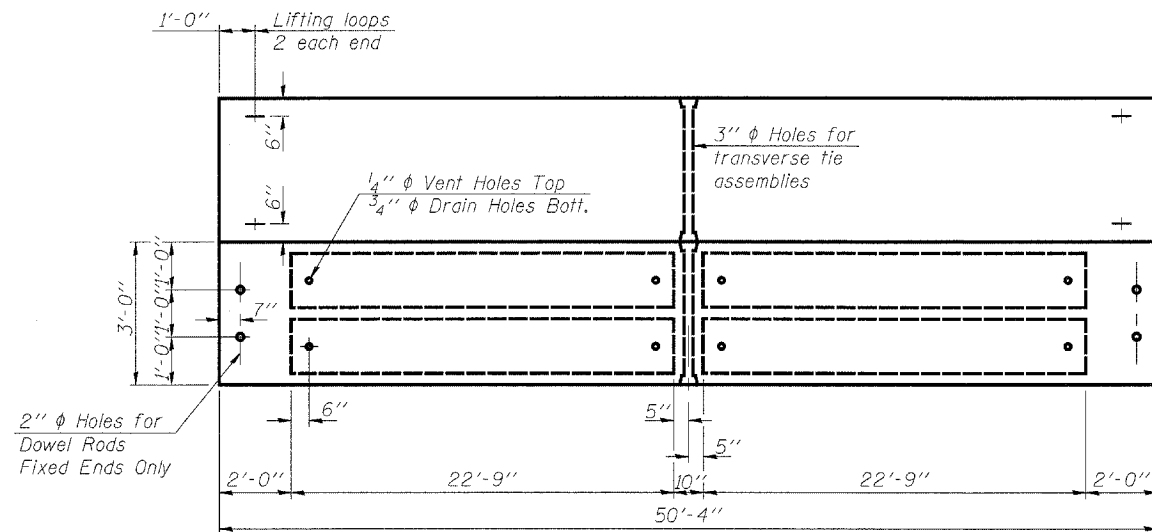
TYPICAL SECTION

1/2"  $\phi$  Strands, Each Strand Stressed to 30,900 Lbs.  
7-Strands 1 3/4" up, 6-Strands 3 1/4" up, 2-Strands 9" up

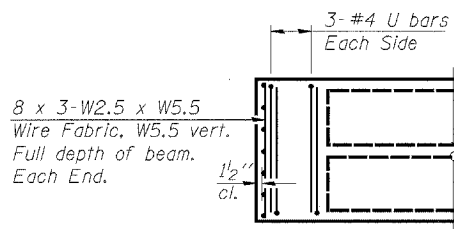
\*Transverse Strand Placement Guidelines

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 1/2".

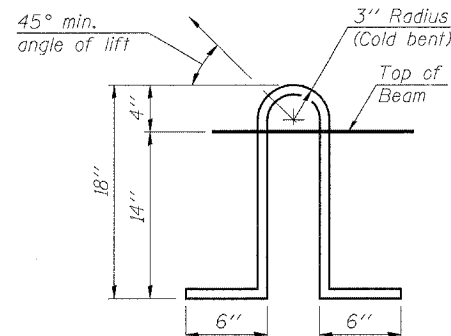
Vertical placement of strands shall not be adjusted to satisfy the above guidelines.



PLAN



END PLAN



LIFTING LOOP 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"  $\phi$ -270 ksi strands, as shown. The 1"  $\phi$  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, and only during Stage III Construction. 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, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength,  $f'_{ci}$ , shall be 4,000 p.s.i. See sheet 3 of 10 for Wing Type Threaded Insert location and spacing. See sheet 4 of 10 for rail anchor device to be cast in precast beams. See sheet 5 of 10 for spacing of rail post. See sheet 6 of 10 for Shear Key Clamping Details at Stage Const. Jt.

BILL OF MATERIAL

Item	Unit	Total
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	4983

DESIGNED	NJM
CHECKED	EML
DRAWN	NJM
CHECKED	EML

**HORNER & SHIFRIN, INC.**  
ENGINEERS ■ ARCHITECTS ■ PLANNERS

**SUPERSTRUCTURE DETAILS**  
**F.A.P. ROUTE 329 - SECTION 126BR-1**  
**RANDOLPH COUNTY**  
**STATION 718+90.00**  
**STRUCTURE NO. 079-0016**