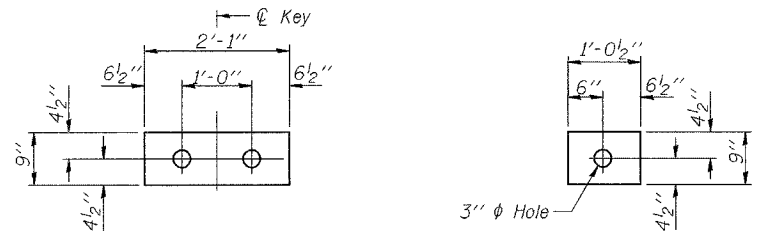


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11
FAP 305	*	Cook	72	69	14 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			
		Contract No. 62853		*2004-108 BR	



**FABRIC BEARING PAD**  
(Interior - 4 Required)

**FABRIC BEARING PAD**  
(Exterior - 4 Required)

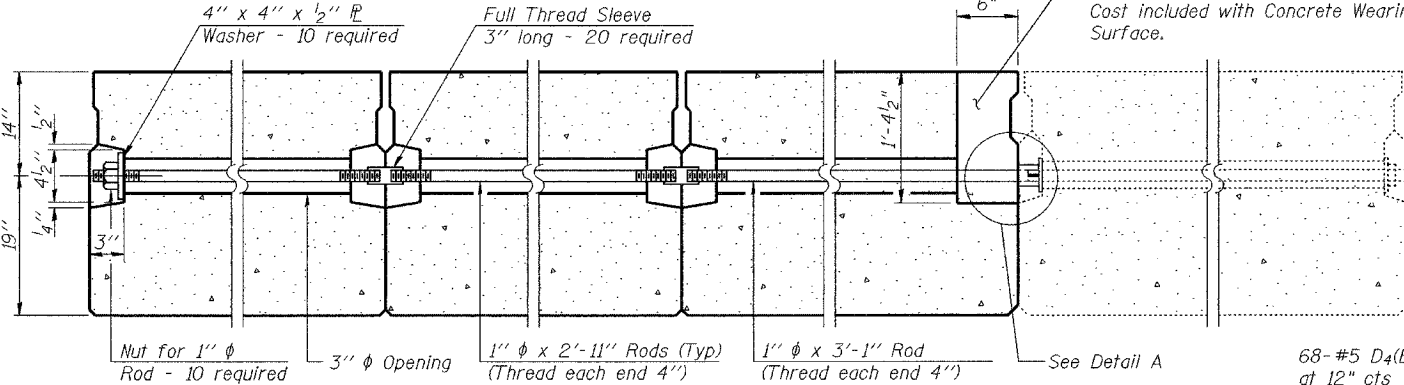
**FIXED**



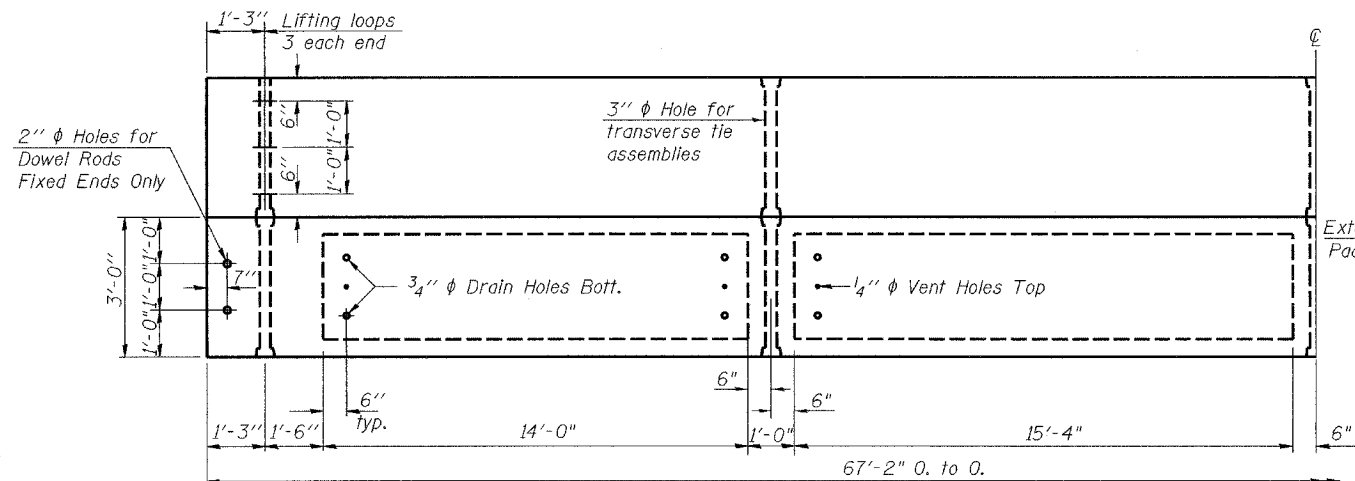
**FABRIC BEARING PAD**  
(Interior - 4 Required)

**FABRIC BEARING PAD**  
(Exterior - 4 Required)

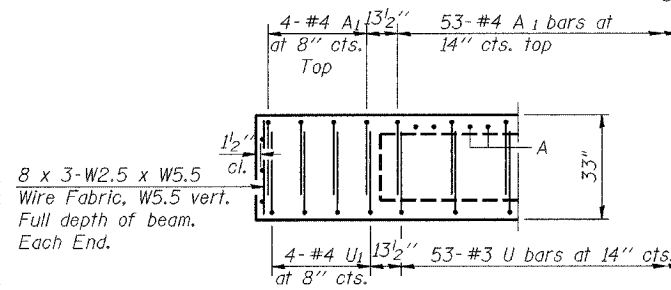
**EXPANSION**



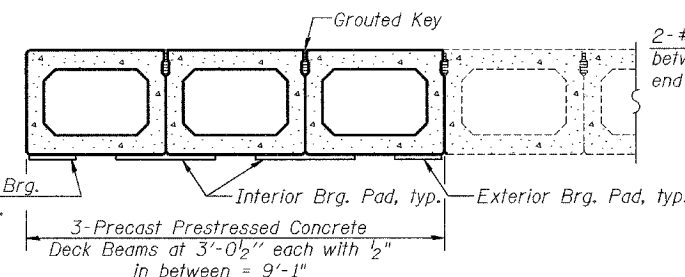
**TRANSVERSE TIE ASSEMBLY**



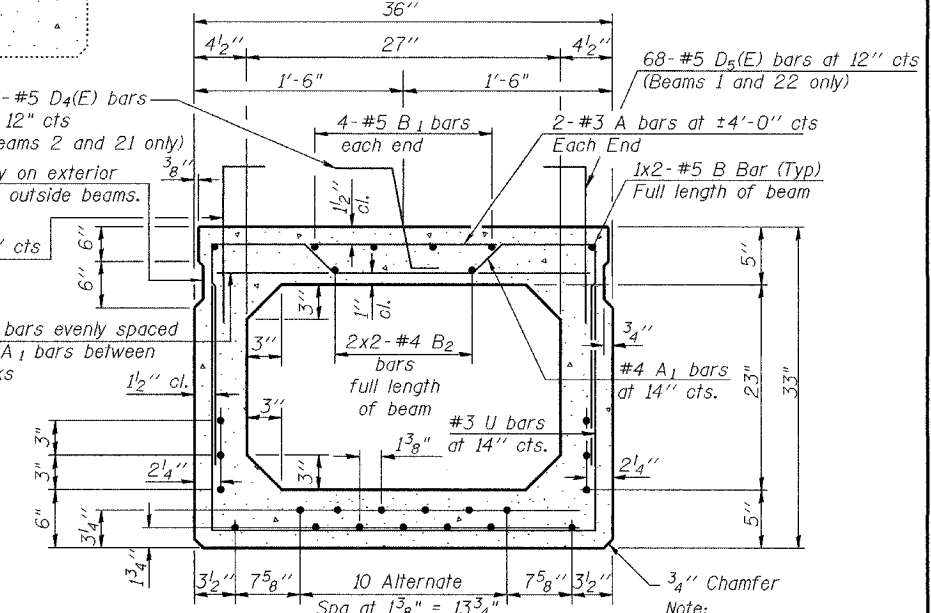
**PLAN**



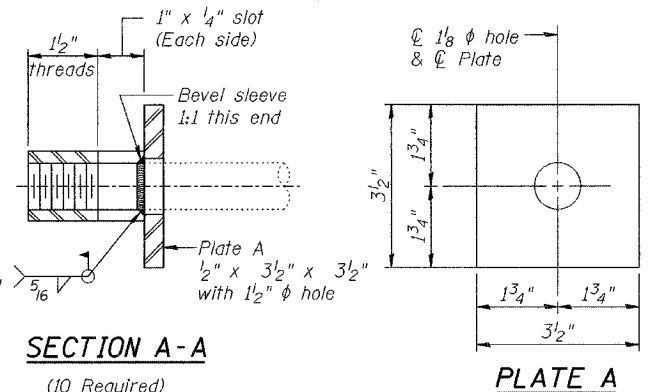
**END ELEVATION**



**REPLACED BEAM CROSS SECTION**



**TYPICAL SECTION**



**NOTES**

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. Lifting loops shall be  $3\frac{1}{2}$ "  $\phi$  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. Non prestressing steel shall conform to AASHTO M-31 or M322 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two  $\frac{1}{8}$ " 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'cl, shall be 4,000 p.s.i. Bars noted thus, 3x2-#5 indicates 3 lines of bars with 2 lengths of bars per line.

$\frac{1}{2}$ "  $\phi$  Strands, Each Strand Stressed to 30,900 Lbs.  
7-Strands  $13\frac{3}{4}$ " up, 6-Strands  $3\frac{1}{4}$ " up, 2 Strands 6" up, 2-Strands 9" up, 2-Strands 12" up

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
A	108	#3	2'-8"		
A <sub>1</sub>	61	#4	6'-1"		
B	8	#5	13'-6"		
B <sub>1</sub>	4	#5	34'-8"		
B <sub>2</sub>	4	#4	34'-5"		
D <sub>4</sub> (E)	68	#5	2'-9"		
D <sub>5</sub> (E)	136	#5	2'-4"		
U	53	#3	7'-3"		
U <sub>1</sub>	8	#4	7'-3"		
Item				Unit	Quantity
Precast Prestressed Concrete Deck Beams (33" Depth)				Sq. Ft.	1,210

Bar List is for one Beam Only.

Reinforcement Bars designated (E) shall be epoxy coated.  
\* Bar D<sub>4</sub>(E) required for Beams 2 and 21 only.  
\*\* Bar D<sub>5</sub>(E) required for Beams 1 and 22 only.

**BOX BEAM DETAILS**  
WOLF RD. OVER PALATINE RD.  
F.A.P. RTE. 305 SECT. 2004-108 BR  
COOK COUNTY  
STATION 950+00.00  
STRUCTURE NO. 016-0680

DESIGNED	BPS
CHECKED	KFA
DRAWN	MJB
CHECKED	GSP

PD-5-S 1-16-04

**LIFTING LOOP DETAIL**