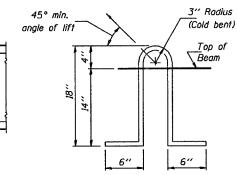


CROSS SECTION

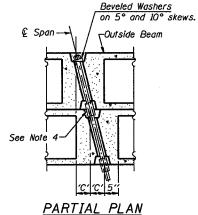
(30' SPAN)

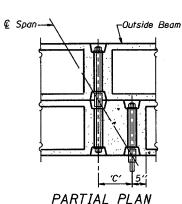
10′′

-0′′1′-0′′ Lifting Ifting Loops Loods



also acceptable.





END BLOCK DETAILS

Each beam shall have four Lifting Loops. two at each end of beam cast in locations shown above. Loops shall be burned off after beams have been erected.

DIMENSION 'C'

Dimension 'C' (Inches) 0 4^{l}_{4} 8^{l}_{2} 12^{7}_{8} 17^{l}_{2} 22^{3}_{8} 27^{3}_{4}

0° 5° 10° 15° 20° 25° 30°

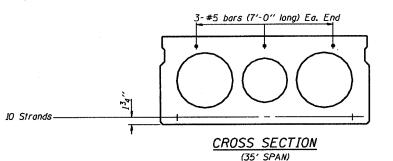
LIFTING LOOP DETAIL

Lifting loops shall be 2. 12"4-270 ksi strands. TRANSVERSE TIE ASSEMBLY as shown. Alternate approved lifting devices are ('D'=0°, 5° and 10°)

TRANSVERSE TIE ASSEMBLY

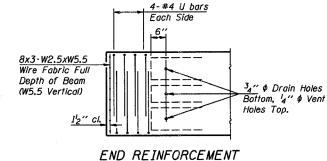
('D'=15°, 20°, 25° and 30°)

(Thread Each End 4")



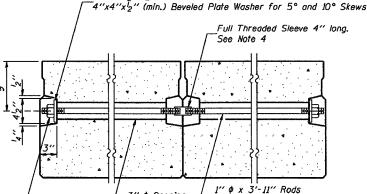
4-#4 U bars Each Side 8x3-W2.5xW5.5 Wire Fabric Full 34" ¢ Drain Holes Depth of Beam Bottom, 4" \$ Vent (W5.5 Vertical) Holes Top.

Skew Angle 'D'



(RIGHT ANGLE)

4"x4"x'2" & Washer for 0°, 15°, 20°, 25° and 30° Skews



-Nut for 1" \$ Rod See Note 4 SECTION ALONG TRANSVERSE TIE ASSEMBLY (REQUIRED FOR 45' SPAN ONLY)

CROSS SECTION

-#5 bars (9'-0" long) Ea. End

CROSS SECTION

(45' SPAN)

3-#5 bars (8'-0'' long) Ea. Eṇd

* TRANSVERSE STRAND PLACEMENT GUIDELINES

Place strands symmetrically about centerline of beam.

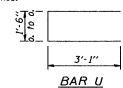
END REINFORCEMENT

(SKEWED)

- 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 12".
- 4. The minimum clearance from strand to void shall be $l_2^{l_2}$.

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





 $f_c' = 5.000 \text{ p.s.i.}$

f'ci = 4,000 p.s.i.

 $f_{\rm V}$ = 60,000 p.s.i.

DESIGN STRESSES

 $f'_{s} = 270.000 \text{ p.s.i. } (^{l}_{2}" \phi \text{ Strand})$

 $f_{si} = 201,960 \text{ p.s.i. } ({}^{l}_{2}" \phi \text{ Strand})$

NOTES

- 1. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- 2. The nominal diameter shall be '2" and the nominal cross-sectional area shall be 0.153 square inches.
- 3. Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-322, Grade 60.
- 4. On 0°, 5° and 10° skews, alternate appoved transverse tie rods of increased segmental length are acceptable.
- 5. Rail Post anchor devices shall be cast into outside beam as elsewhere specified.
- 6. When a Waterproofing Membrane System is specified, the top surface of the beams shall be screeded with a straightedge and finished with a hand float. The finished surface shall be free of depressions or high spots with sharp corners and the top edge of keys shall be rounded or chamfered a minimum of 4".
- 7. Keyway surfaces shall be cleaned to remove form oil or other band breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between the top of the beam and the bottom edge of the key.

P.P.C. DECK BEAM DETAILS 24' ROADWAY 21" x 48" BEAMS STANDARD CB-2421-48

Illinois Department of Transportation Thomas Namagalaki Engineer of Bridge Design APPROVED APRIL 4, 2005 Rolat E. ankern Engineer of Bridges and Structures

€ 2" ¢ Dowel Holes Each End-

2 Strands <u>11 Strands -</u>

2 Strands

10 Strands 6 Strands-

NOTE

The std. reinf. and dimensions shown on the 30' span cross section is typical for all spans, except as shown.