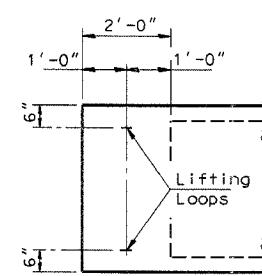
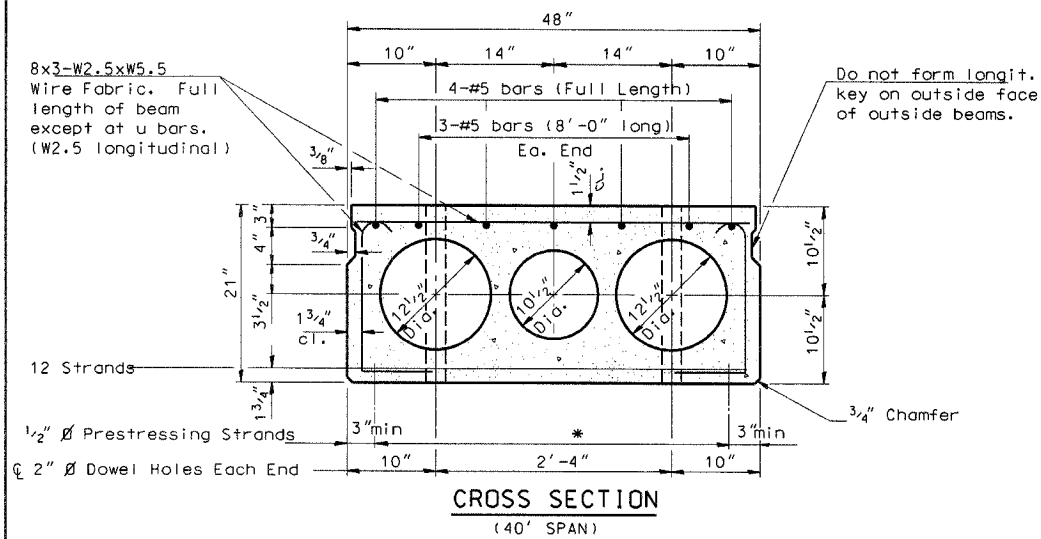
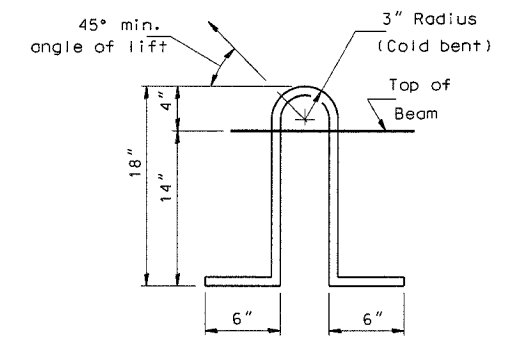


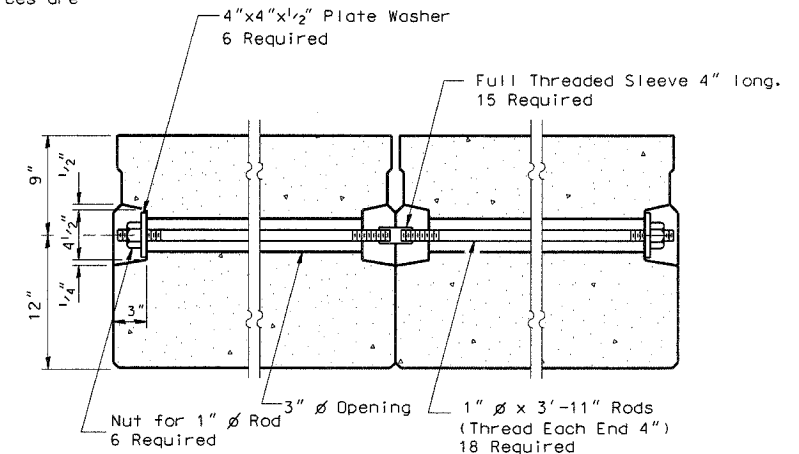
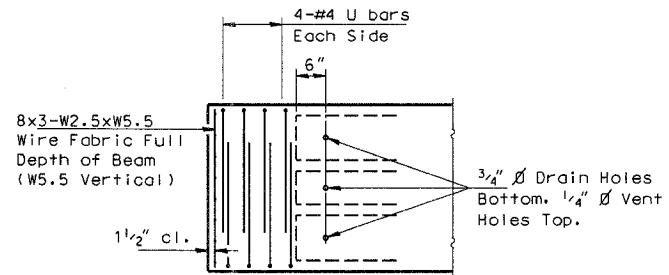
|               |                                  |          |                      |           |
|---------------|----------------------------------|----------|----------------------|-----------|
| FAS RTE       | SECTION                          | COUNTY   | TOTAL SHEETS         | SHEET NO. |
| TR 205        | 05-09126-00-BR<br>05-17134-00-BR | HENRY    | 11                   | 6         |
| F.H.W.A. REG. |                                  | ILLINOIS | PROJECT BROS-073(53) |           |



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.



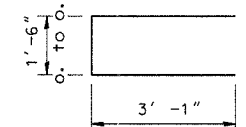
Lifting loops shall be 2 1/2"  $\phi$ -270 ksi strands, as shown. Alternate approved lifting devices are also acceptable.



**\* 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



**MIN. BAR LAP**

#5 bars = 1'-8"

**DESIGN STRESSES**

- $f'_c = 5,000$  p.s.i.
- $f'_{ci} = 4,000$  p.s.i.
- $f'_s = 270,000$  p.s.i. (1/2"  $\phi$  Strand)
- $f_s = 189,000$  p.s.i. (1/2"  $\phi$  Strand)
- $f_t = 60,000$  p.s.i.

**NOTES**

1. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270, stressed to 30,900 pounds
2. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 square inches.
3. Reinforcement bars shall conform to AASHTO M-31 or M-322, Grade 60.
4. On 0°, 5° and 10° skews, alternate approved 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 Waterproofing Membrane System is specified, the top surface of the beams shall be finished in accordance with Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. 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 1/4".
7. 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 the top of the beam and the bottom edge of the key.

|                                 |                 |
|---------------------------------|-----------------|
| <b>P.P.C. DECK BEAM DETAILS</b> |                 |
| 24' ROADWAY                     | 21" x 48" BEAMS |