



- 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
- The nominal addreter shall be 1/2 and the nominal closs-section and shall be 0.153 square inches.
   Reinforcement bars shall conform to AASHTO M-31 or M-322, Grade 60.
   Rail Post anchor devices shall be cast into outside beam as elsewhere specified.
   When Waterproofing Membrane System is specified, the top surfaces of the beams shall be finished in accordance with Article 504.06 of the Standard Specifications
- shall be finished in decordance with a decision of the standard specifications
  except that the surface shall not be roughened by brooming. The finish 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".
  6. 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.

## **DESIGN STRESSES**

- $f'_{C} = 5,000 \text{ p.s.i.}$
- f<sub>ci</sub> = 4,000 p.s.i.

f'<sub>S</sub> = 270,000 p.s.i (1/2"Ø Strand)

fsi = 201,960 p.s.i. (1/2"Ø Strand)

fy = 60,000 p.s.i.



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CROSS SECTION

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.

1'-6"

9" 9"

-



#5 BARS = 1'-8"

## 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 adjusted to satisfy the above guidelines.



|  | ROUTE NO.                     | SECTION                          | COUNTY            | TOTAL<br>SHEETS | SHEE1<br>NO. |
|--|-------------------------------|----------------------------------|-------------------|-----------------|--------------|
|  | F.A.S 782<br>(KEYESPORT ROAD) | 05-00084-00-BR<br>05-00079-00-BR | CLINTON<br>& BOND | . 13            | 9            |
|  | CONTRACT NO. 9                | 7272                             |                   |                 |              |
|  |                               |                                  |                   |                 |              |
|  |                               |                                  |                   |                 |              |
| 45° min.   |                               |                                  |                   |                 |              |
| angle of lift  | 3" Radius                     |                                  |                   |                 |              |
| <sup>4</sup>   | (Cold bent)                   |                                  |                   |                 |              |
|  | Торо                          | f                                |                   |                 |              |
| *8<br>   | Beam                          |                                  |                   |                 |              |
| <u>,</u>   |                               |                                  |                   |                 |              |
|  |                               |                                  |                   |                 |              |
|  |                               |                                  |                   |                 |              |
|  |                               |                                  |                   |                 |              |
| LIFTING LOOP   | DETAIL                        |                                  |                   |                 |              |
| Lifting loops shall be two 1/2<br>as shown. Alternate approved<br>also acceptable. |                               |                                  |                   |                 |              |
| aiso acceptable.   |                               |                                  |                   |                 |              |



(RIGHT ANGLE)

P.P.C. DECK BEAM DETAILS F.A.S. 782 (KEYESPORT ROAD) OVER FLAT BRANCH 05-00084-00-BR & 05-00079-00-BR **CLINTON & BOND COUNTY** STATION 66+73 S.N. 014-3000