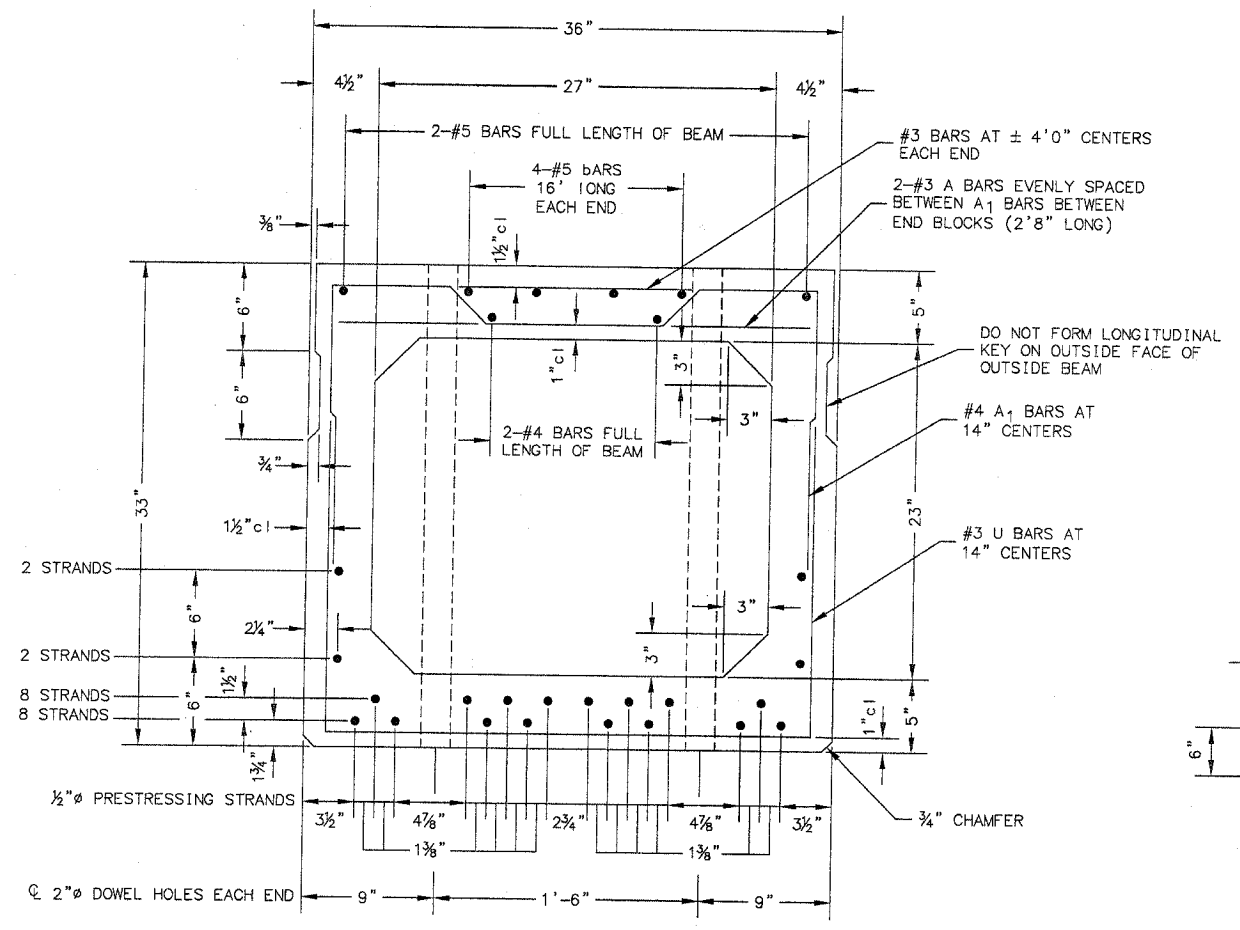
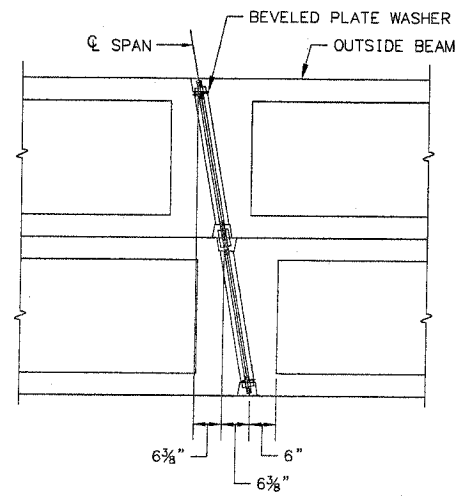


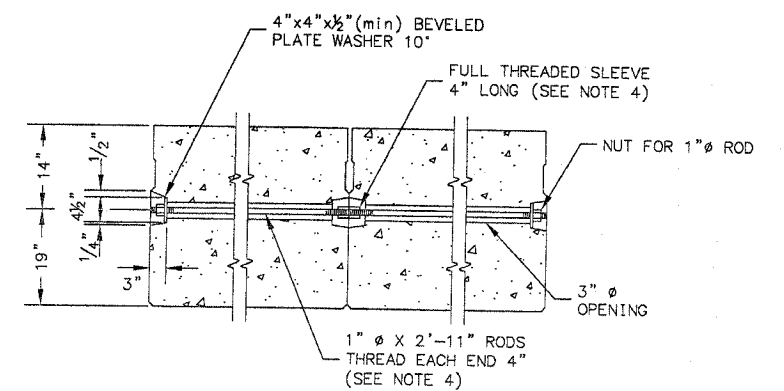
SECTION NO.	COUNTY HIGHWAY	COUNTY	SHEET OF SHEETS
02-00161-02-BR	C.H.34	ST. CLAIR	12 of 22
FHWA REG.NO.7	ILLINOIS	PROJ: BRM-5011(188)	
PPC DECK BEAM DETAILS	CONTRACT 97280		



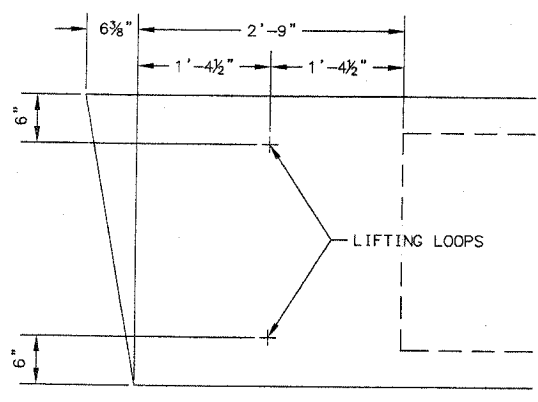
CROSS SECTION
(80' SPAN)



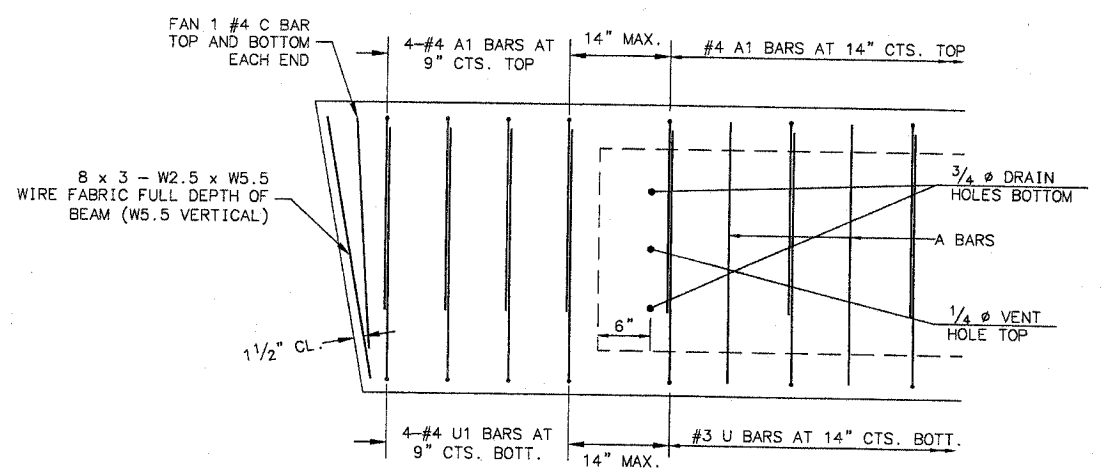
TRANSVERSE TIE ASSEMBLY
PARTIAL PLAN



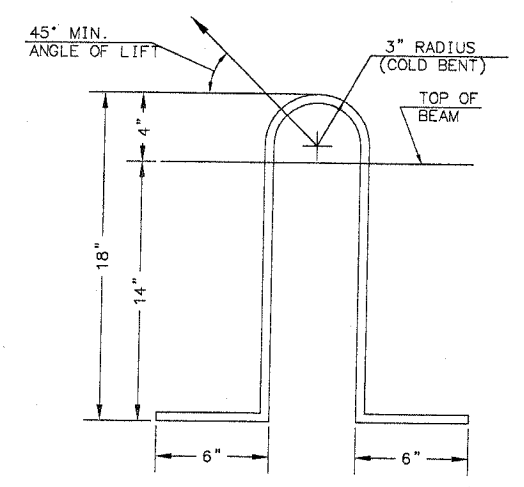
SECTION ALONG
TRANSVERSE TIE ASSEMBLY



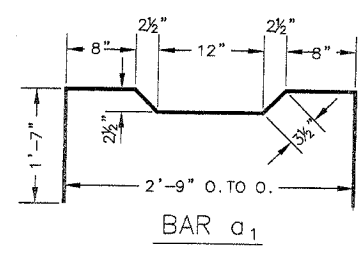
END BLOCK DETAIL
EACH BEAM SHALL HAVE FOUR LIFTING LOOPS, TWO AT EACH END OF BEAM CAST IN LOCATIONS SHOWN ABOVE. LOOPS SHALL BE BURNED OFF AFTER BEAMS HAVE BEEN ERECTED.



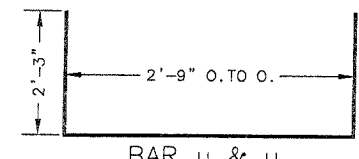
END REINFORCEMENT



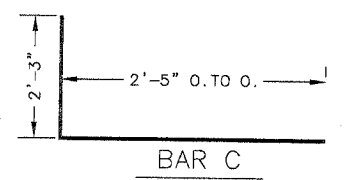
LIFTING LOOP DETAIL
LIFTING LOOPS SHALL BE 3, 1/2" Ø - 270 ksi STRANDS, AS SHOWN. ALTERNATE APPROVED LIFTING DEVICES ARE ALSO ACCEPTABLE.



BAR a₁



BAR u & u₁



BAR C

DESIGN STRESSES

- f'c = 5,000 psi
- f'ci = 4,000 psi
- f's = 270,000 psi (1/2" Ø STRAND)
- f'si = 189,000 psi (1/2" Ø STRAND)
- fy = 60,000 psi

- NOTES
- PRESTRESSING STEEL SHALL BE UNCOATED HIGH STRENGTH, STRESS RELIEVED 7-WIRE STRAND, GRADE 270.
 - THE NOMINAL DIAMETER SHALL BE 1/2" AND THE NOMINAL CROSS-SECTIONAL AREA SHALL BE 0.153 SQUARE INCHES.
 - REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706 GRADE 60 (IL MODIFIED)
 - ON 0°, 5° and 10° SKEWS, ALTERNATE APPROVED TRANSVERSE TIE RODS OF INCREASED SEGMENTAL LENGTH ARE ACCEPTABLE.
 - RAIL POST ANCHOR DEVICES SHALL BE CAST INTO OUTSIDE BEAM AS ELSEWHERE SPECIFIED.
 - 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".
 - LOW RELAXATION STRANDS MAY BE SUBSTITUTED FOR THE STRESS RELIEVED STRANDS. THE INITIAL PRESTRESSING FORCE APPLIED TO EACH STRAND SHALL BE THE SAME AS FOR THE STRESS RELIEVED STRANDS (28900 LBS).
 - 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.

REQUIRED
RELEASE STRENGTH
f'ci = 4,000 psi

P.P.C. DECK BEAM DETAILS
33' ROADWAY
33" x 36" BEAMS

INITIALS	DATE
DESIGNED WES	7/04
CHECKED	
DRAWN WES	7/04
CHECKED	
PREPARED BY ST. CLAIR COUNTY	
CADD DRAWING FILE:DECK BMS	

PLOT DATE: 3/07