

DAKB 574005



The drawing consists of two parts: a cross-section on the left and a plan view on the right.

Cross-section (Left): Shows a vertical section of a slab. The total height is labeled as $6' 4\frac{1}{2}"$. The slab is supported by a wall on the left and a column on the right. The column is labeled $L'S 24" \times 24" \times 8' 0" \times 9"$. The slab thickness is indicated as $3' 4"$. The slab is reinforced with vertical bars. The bottom reinforcement is labeled $2"$, $4"$, $4"$, and $2"$.

Plan View (Right): Shows the top view of the slab. It is a rectangular slab with a central section labeled $3' 4"$. The slab is reinforced with horizontal bars. The text "Center on projecting bars" is written below the slab.

CONNECTION DETAIL AT FIXED PIERS

Note: Angles may be rotated for welding. Angles and welding shall be subsidiary to bid item of Prestressed Concrete Beams

DESIGN:

ROADWAY BEAMS:

CONCRETE: F'_c

CONCRETE: f'_c 5,000 P.S.I. AT 28 DAYS
 f'_{ci} - 4,350 P.S.I. (MINIMUM RELEASE
 STRENGTH)

SIDEWALK BEAMS:

CONCRETE: F'_c 6,000 P.S.I. AT 28 DAYS
 F'_{ci} - 4,700 P.S.I. (MINIMUM RELEASE
 STRENGTH)

PRESTRESSING STEEL:

PROTECTING STRIP:
 1/2" NOMINAL DIAMETER 7-WIRE HIGH TENSILE TYPE, UNCOATED,
 STRESS RELIEVED STRANDS HAVING THE FOLLOWING PROPERTIES:
 MINIMUM ULTIMATE STRENGTH --- 268,000 P.S.I.,
 INITIAL STRESS --- 187,600 P.S.I.,
 INITIAL TENSION PER STRAND --- 28,910 LBS.

ALL DIMENSIONS SHOWN RELATIVE TO PLACEMENT OF REINFORCING STEEL ARE TO CENTERLINE OF BARS OR STRANDS UNLESS OTHERWISE NOTED.

PRECAST BEAMS SHALL AT ALL TIMES BE HANDLED AND TRANSPORTED IN AN UPRIGHT POSITION AND POINTS OF SUPPORT SHALL BE APPROXIMATELY THE SAME DURING TRANSPORTATION AND STORAGE AS WHEN THE BEAM IS IN ITS FINAL POSITION.

SEE SHEET 17 FOR BEAM ERECTION NOTES.

SEE SHEET 22 FOR BAR LIST AND BENDING DIAGRAMS.

CITY OF WICHITA, KANSAS
R.W. LINN, P.E., CITY ENGINEER
FIRST STREET BRIDGE OVER
THE ARKANSAS RIVER
PRESTRESSED BEAM DETAILS

DELAMATER, FREUND & SCHERER, P.A.
CONSULTING ENGINEERS
WICHITA, KANSAS

SCALE _____	DATE <i>June, 1974</i>	DWG. NO. 89-G-16
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