

MICROFILMED  
JAN 6 1983

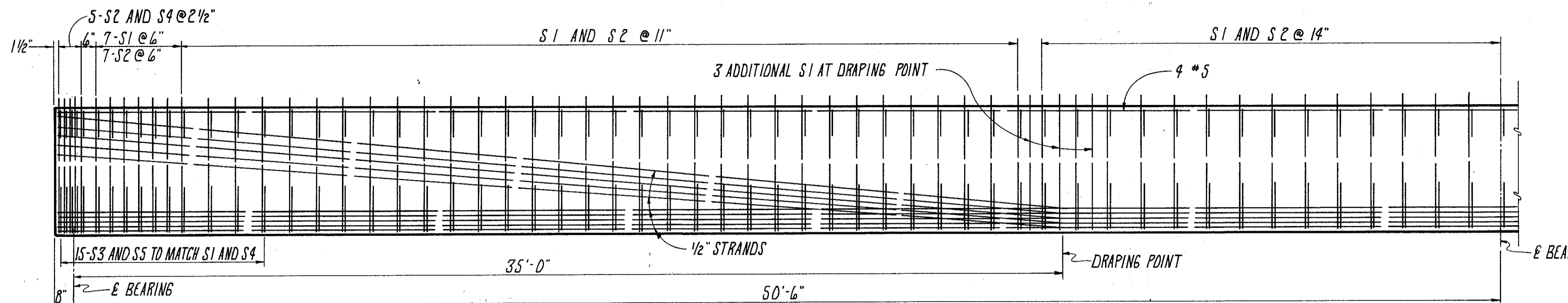
FHWA REGION	STATE	PROJECT
5	OHIO	

74  
85

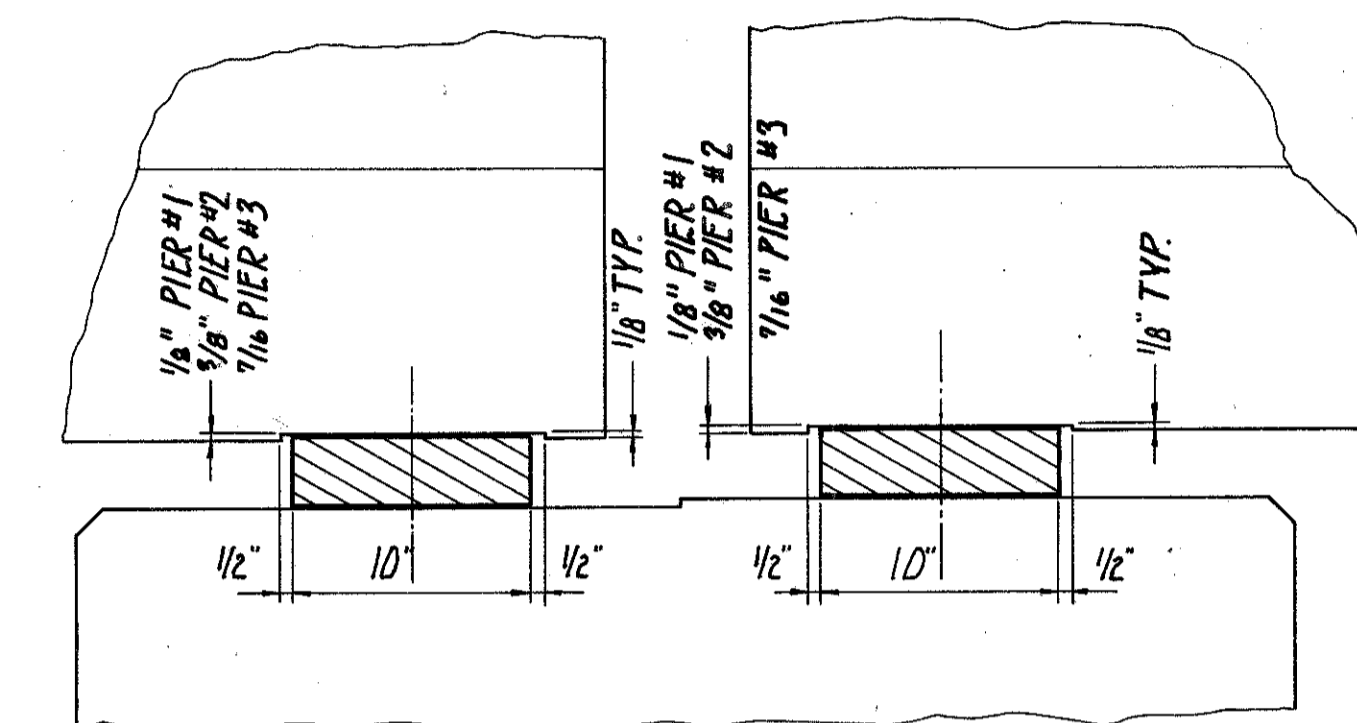
LAKE COUNTY  
LAK-20-5.60

**CONCRETE STRESSES:**  
MIN. CONCRETE STRENGTH AT 28 DAYS  $f'_c = 5700$  P.S.I.  
MIN. CONCRETE STRENGTH AT TIME OF INITIAL PRESTRESS  $f'_{ci} = 4000$  P.S.I.

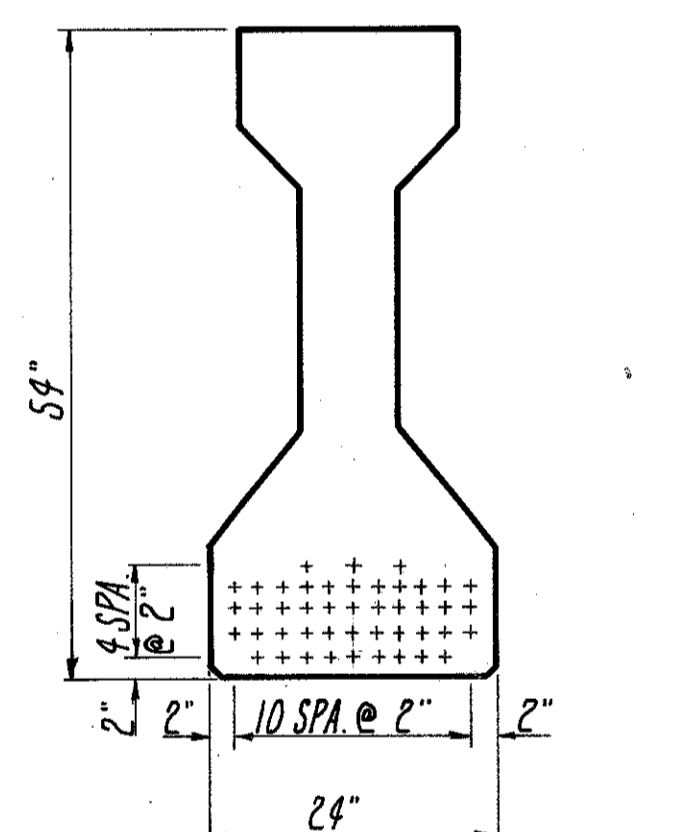
**PRESTRESSING STRANDS:**  
 $\frac{1}{2}$ " DIAMETER 270<sup>K</sup> SEVEN-WIRE, UNCOATED, STRESS-RELIEVED STRAND  
INITIAL TENSION = 28,900 LBS. PER STRAND  
TENSION AT RELEASE = 26,600 LBS. PER STRAND  
FINAL TENSION = 21,700 LBS. PER STRAND AFTER ALL LOSSES



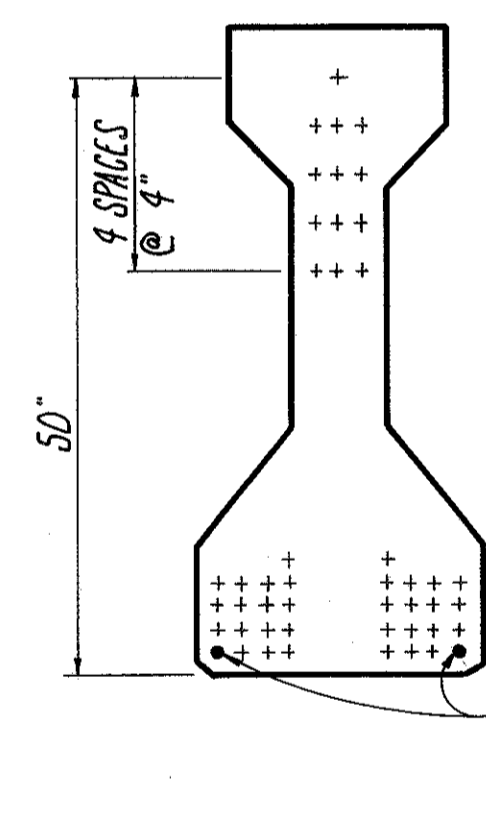
BEAM ELEVATION



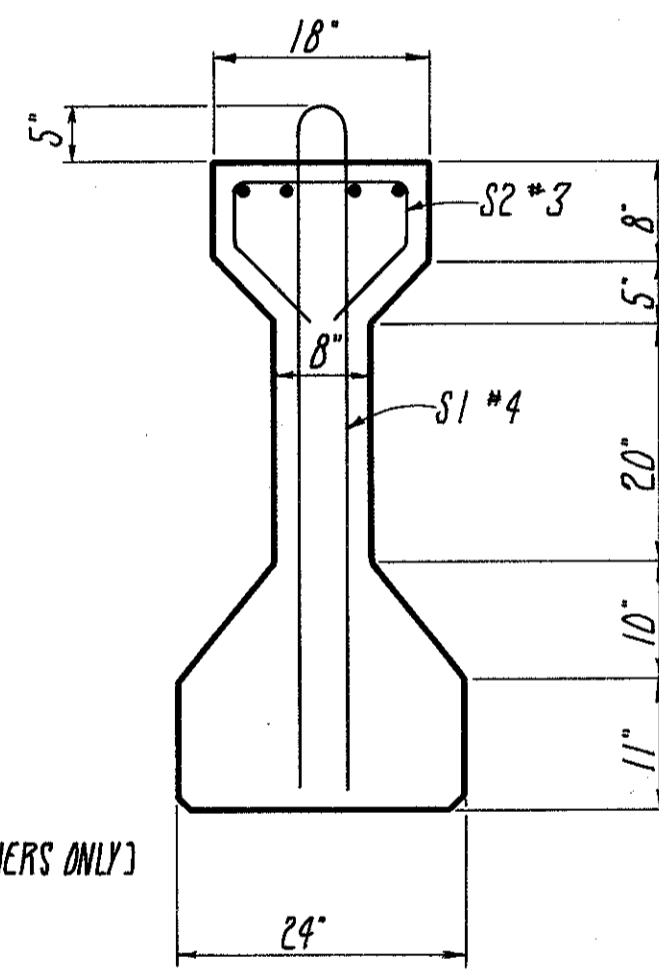
BEARING AT PIER NO. 2 & NO. 3



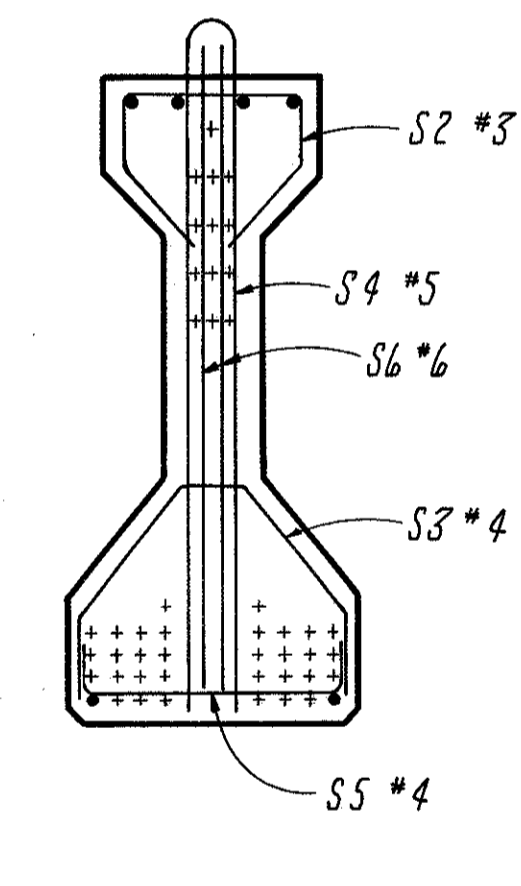
TYPICAL STRAND PATTERN  
AT MIDPOINT OF BEAM



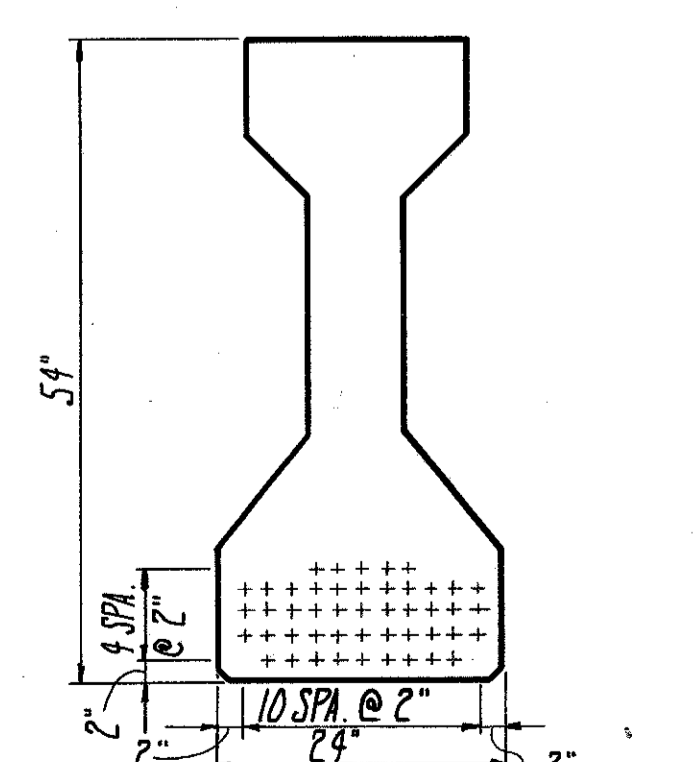
TYPICAL STRAND PATTERN  
AT END OF BEAM



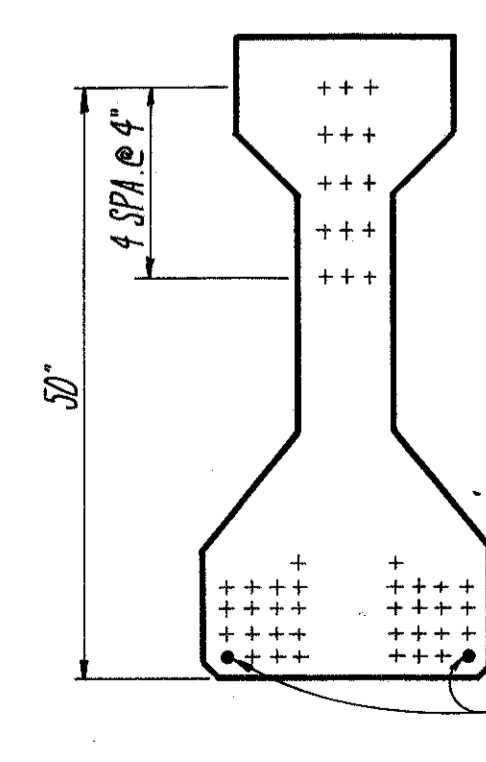
INTERIOR BEAMS



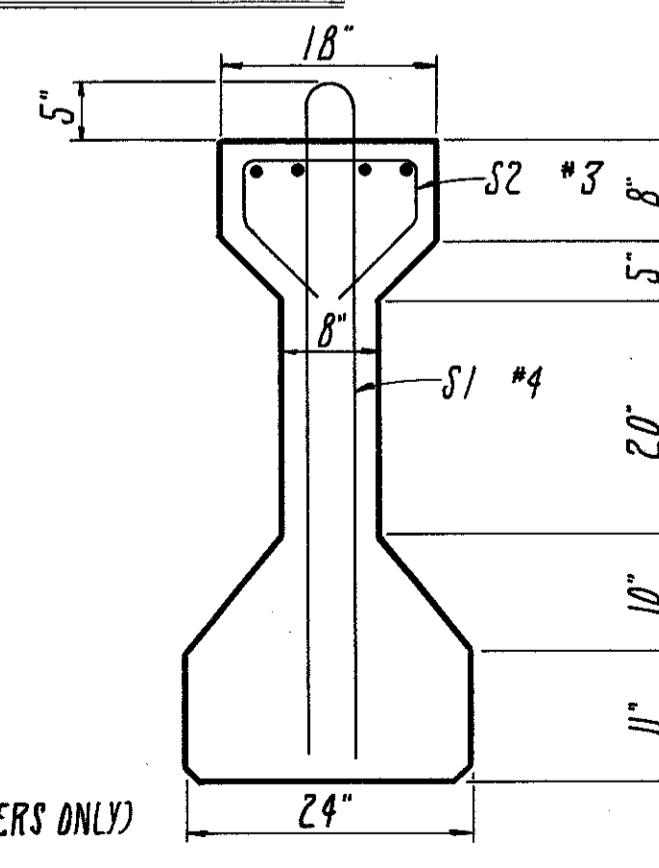
MILD STEEL REINFORCEMENT  
AT END OF BEAM



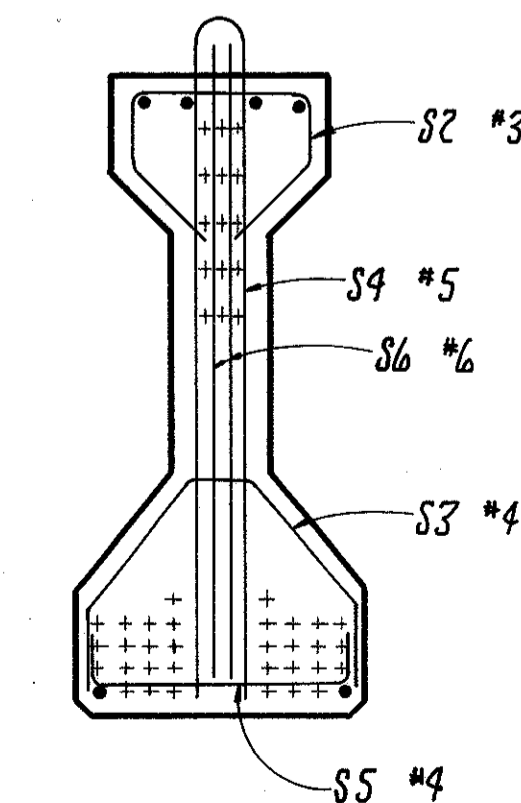
TYPICAL STRAND PATTERN  
AT MIDPOINT OF BEAM



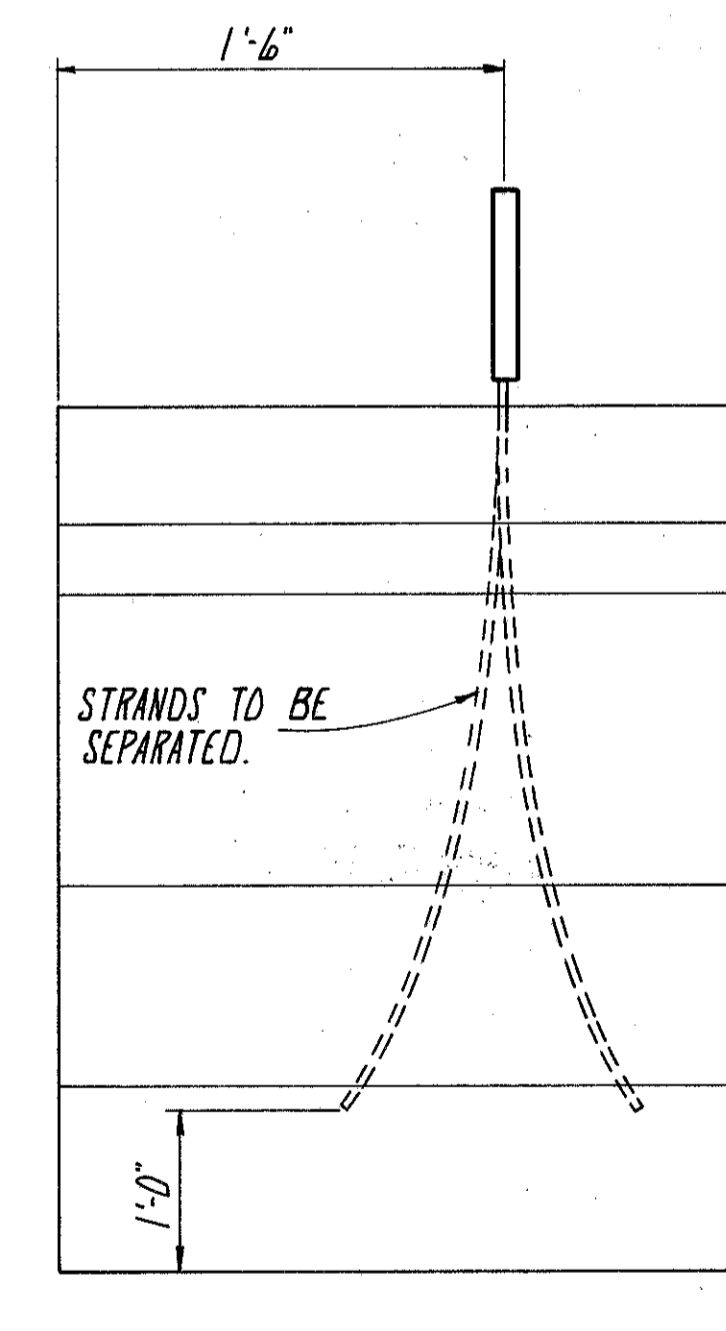
TYPICAL STRAND PATTERN  
AT END OF BEAM



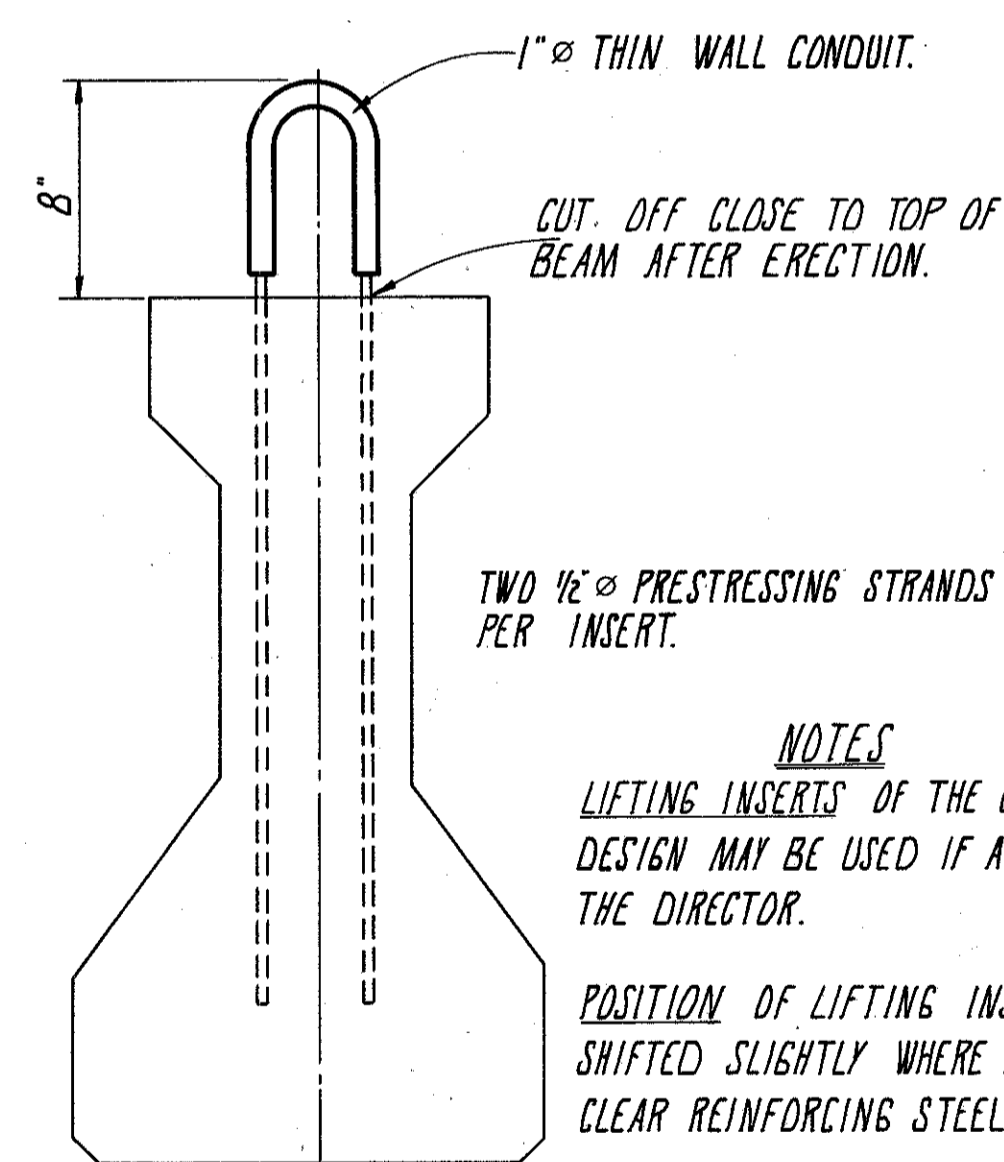
EXTERIOR BEAMS



MILD STEEL REINFORCEMENT  
AT END OF BEAM



BEAM LIFTING INSERT



**NOTES**  
LIFTING INSERTS OF THE CONTRACTOR'S DESIGN MAY BE USED IF APPROVED BY THE DIRECTOR.  
POSITION OF LIFTING INSERTS MAY BE SHIFTED SLIGHTLY WHERE NECESSARY TO CLEAR REINFORCING STEEL.

**PRESTRESSED BEAM CONCRETE**  
THE CONCRETE SHALL BE IN ACCORDANCE WITH 515.06 EXCEPT THAT THE TOP SURFACE OF THE BEAM SHALL BE GIVEN A GRITTY TEXTURE.

FRANKLIN CONSULTANTS INC. 13/14 Consulting Engineers						
COLUMBUS, OHIO						
<b>SUPERSTRUCTURE DETAILS</b>						
CITY OF WILLOUGHBY CHAGRIN RIVER BRIDGE						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FA	B.B.	B.B.	AM	JF	9/19/77	

BRUNING 44-560 30845