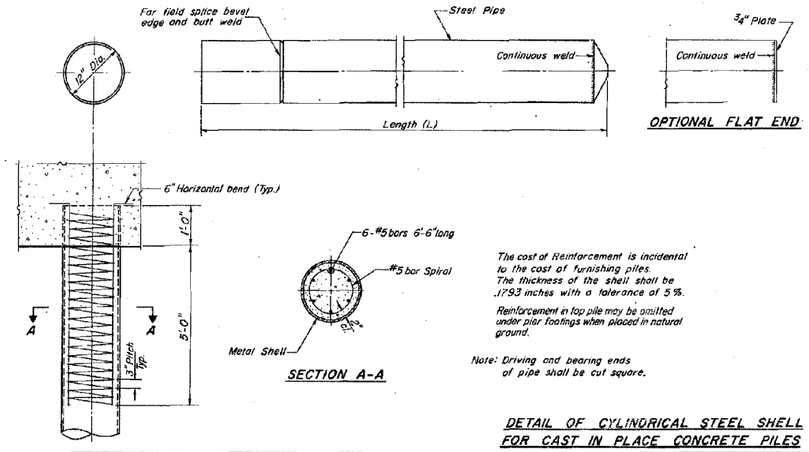
CONTRACT NO. 66647

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	123-BR-1	IROQUOIS	39	34
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

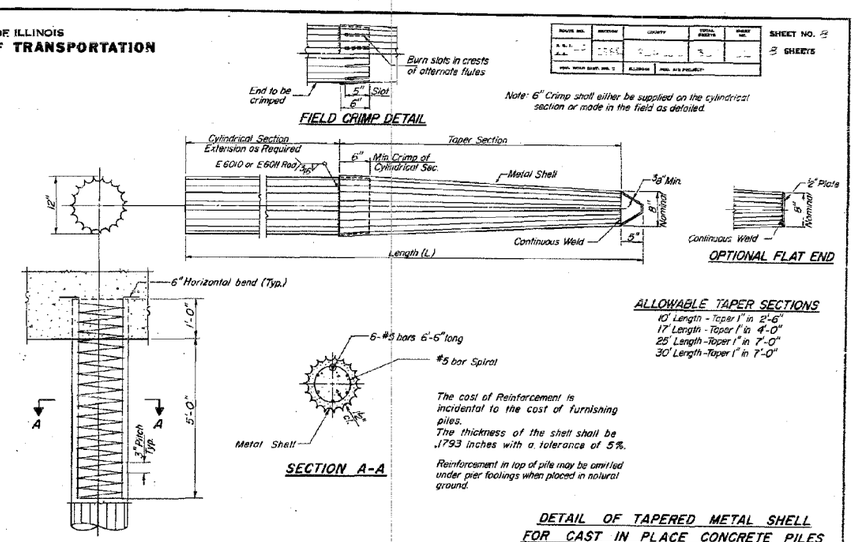


The cost of Reinforcement is incidental to the cost of furnishing piles.
The thickness of the shell shall be .1793 inches with a tolerance of 5%.

Reinforcement in top pile may be omitted under pier footings when placed in natural ground.

Note: Driving and bearing ends of pipe shall be cut square.

DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES

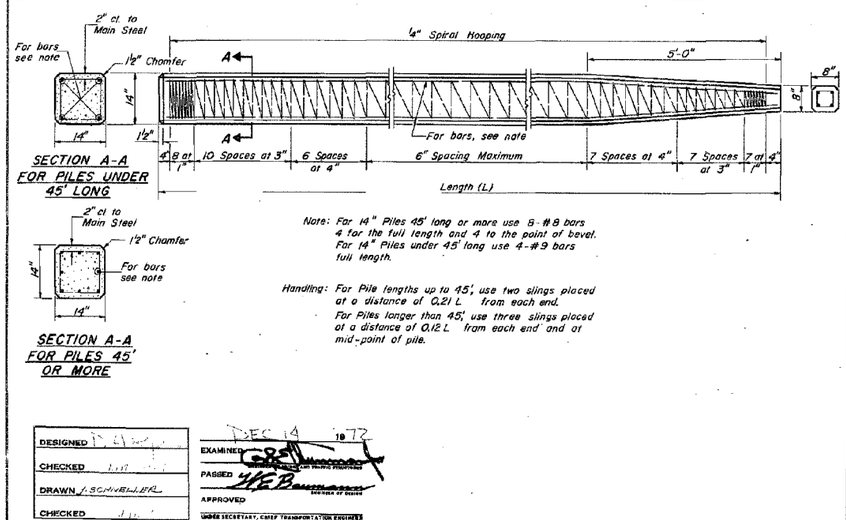


ALLOWABLE TAPER SECTIONS
10' Length - Taper 1" in 2'-6"
17' Length - Taper 1" in 4'-0"
25' Length - Taper 1" in 7'-0"
30' Length - Taper 1" in 7'-0"

The cost of Reinforcement is incidental to the cost of furnishing piles.
The thickness of the shell shall be .1793 inches with a tolerance of 5%.

Reinforcement in top of pile may be omitted under pier footings when placed in natural ground.

DETAIL OF TAPERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



Note: For 14" Piles 45' long or more use 8-#8 bars 4 for the full length and 4 to the point of bevel. For 14" Piles under 45' long use 4-#9 bars full length.

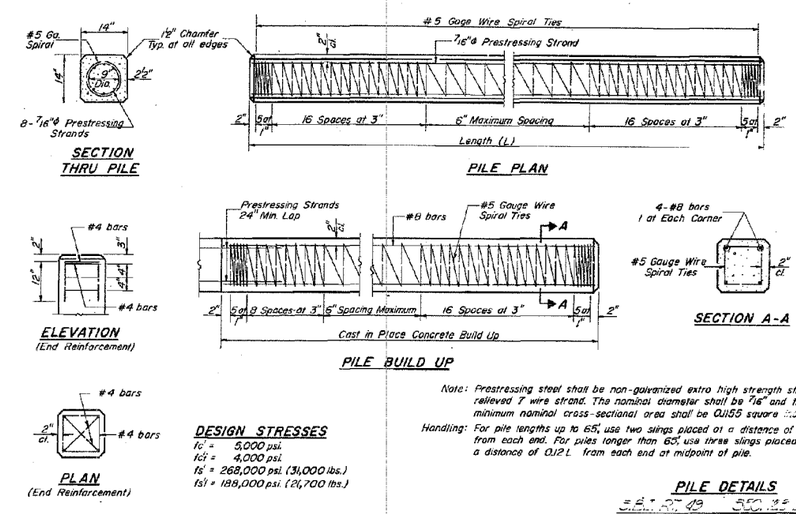
Handling: For Pile lengths up to 45', use two slings placed at a distance of 0.21 L from each end.
For Piles longer than 45', use three slings placed at a distance of 0.12 L from each end and at mid-point of pile.

DESIGNED	
CHECKED	
DRAWN	J. SCHWEIBER
CHECKED	

EXAMINED DEC 14 1972
PASSED
APPROVED
UNDER SECRETARY, CHIEF TRANSPORTATION ENGINEER

X-2 3-19-73

DETAIL OF PRECAST CONCRETE PILES



DESIGN STRESSES
f'_c = 5,000 psi.
f'_{ci} = 4,000 psi.
f_s = 268,000 psi. (31,000 lbs.)
f_{si} = 188,000 psi. (21,700 lbs.)

Note: Prestressing steel shall be non-galvanized extra high strength stress-relieved 7 wire strand. The nominal diameter shall be 7/16" and the minimum nominal cross-sectional area shall be 0.155 square inch.

Handling: For pile lengths up to 65', use two slings placed at a distance of 0.21L from each end. For piles longer than 65', use three slings placed at a distance of 0.12 L from each end at midpoint of pile.

PILE DETAILS
S.B. - 07-19 SEC. 12-25-25
IROQUOIS COUNTY
STA. 155+74.0

DETAIL OF PRECAST PRESTRESSED CONCRETE PILES

ESCA CONSULTANTS, INC.

DESIGNED BY:	MTD	08/06
DRAWN BY:	HAG	08/06
CHECKED BY:	ELH	08/06
APPROVED BY:	RDP	08/06

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 840 (IL 49)
SECTION 123-BR-1
IROQUOIS COUNTY