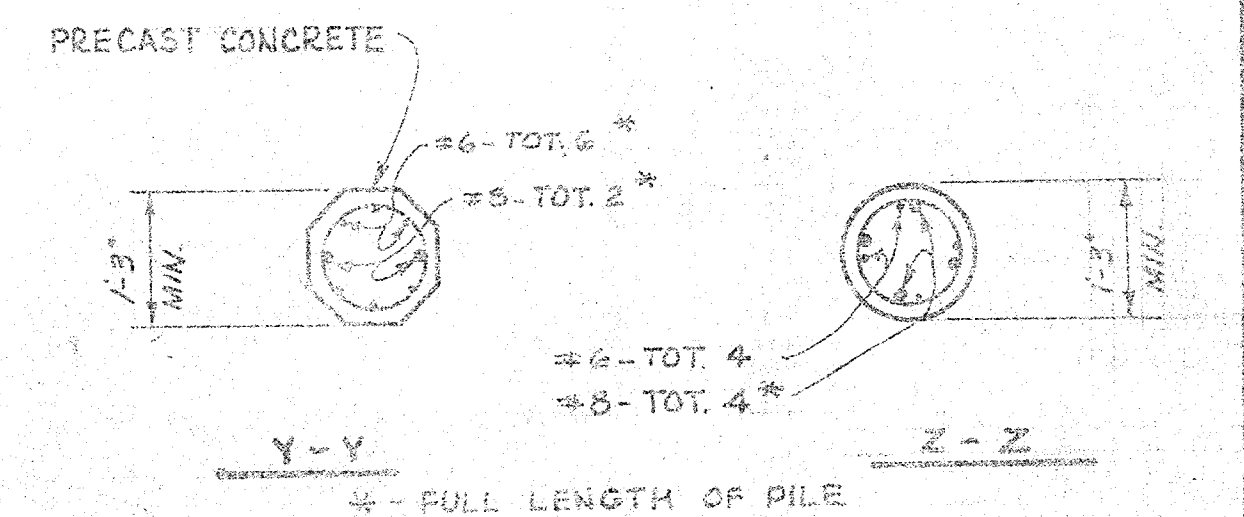
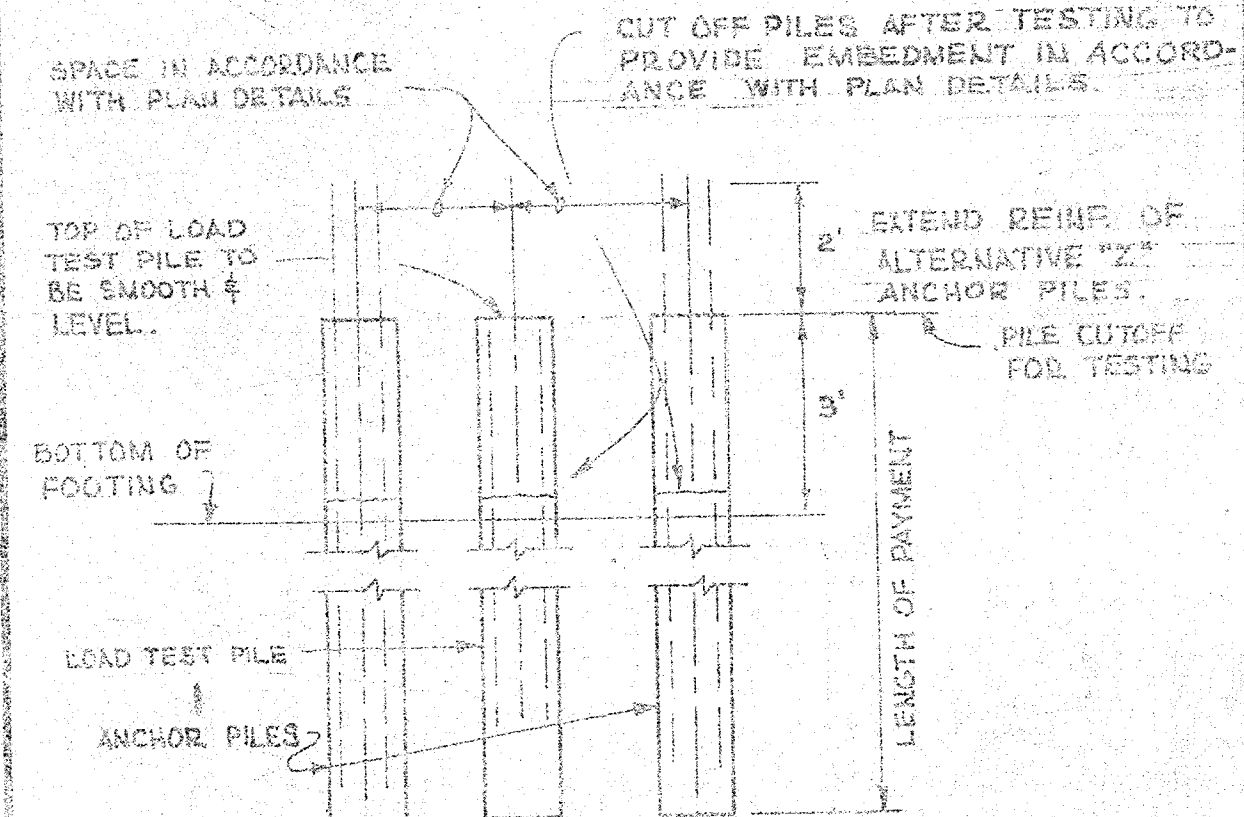




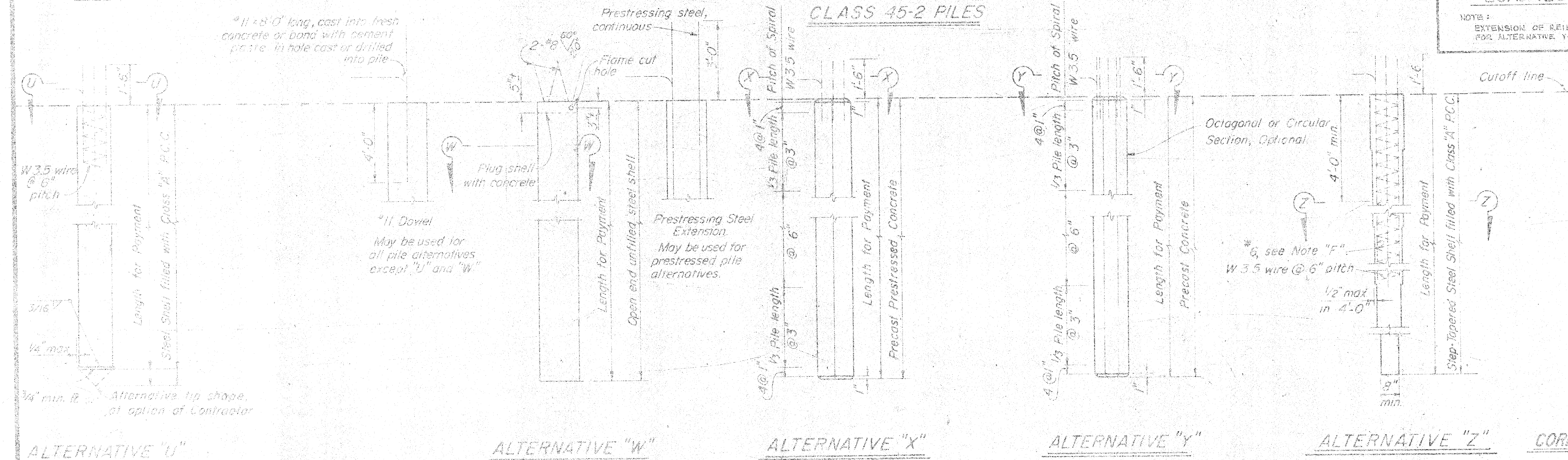
NOTE: When "ALTERNATIVE U" is driven with mandrel, shell thickness may be reduced to 0.134"



CLASS 45-1 PILES

Place diagonal of pile parallel to layout line of footing.

CLASS 45-2 PILES



NOTE:
EXTENSION OF REINF. ABOVE TOP OF ANCHOR PILES
FOR ALTERNATIVE Y-Y NOT REQUIRED.

CORRUGATED ALTERNATIVE "Z"

- NOTE F: In Alternative "Z" the No. 6 bars shall extend to:
1. Bottom of pile for bridges over water courses.
 2. 12'-0" below the lowest of the following for bridges not over water course

PRECAST PRESTRESSED PILES

RECAST PRESTRESSED PILES: If section used is larger than the min. section shown, then "P" shall provide 700 psi min. Concrete Strength: 1" @ 28 days = 6,000 p.s.i. (Alternative "X")
4,500 p.s.i. (Alternative "Y")

NOTES: Class 45-1 piles may be substituted for Class 45-2.
A 10" minimum diameter pipe extension (thickness = 0.1793" min.) may be used
at the tip of Alternative "Z" when taper is 30' or more in length.

All dowels or bars extending into slab or footing having a depth less than 2'-0" shall be hooked.

Unless indicated to the contrary all piles shall be Class 45-1

DESIGN LOADING = 45 TONS

ORANGE COUNTY ROAD DEPARTMENT	
DATE	SEVENTEENTH STREET BRIDGE
TIME	SA-20
BY	ACROSS SANTA ANA RIVER
NO.	PILING DETAILS
SCALE	NO SCALE
DATE	SHEET 19 OF 20

DR. 17 (12215)