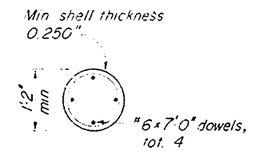
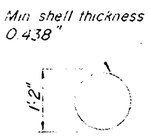
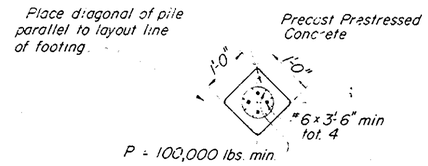


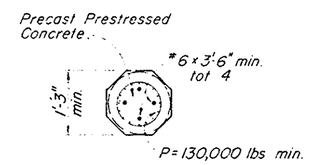
SECTION U-U



SECTION W-W

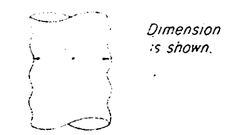


SECTION X-X



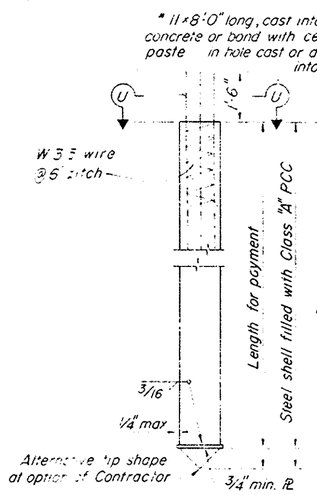
SECTION Y-Y

SECTION Z-Z

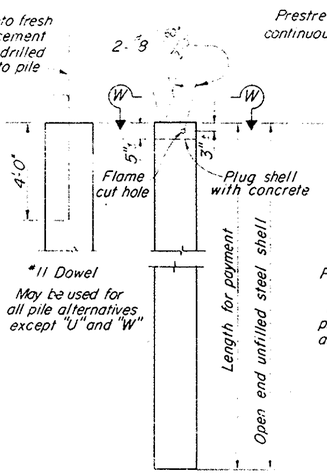


CORRUGATED ALTERNATIVE "Z"

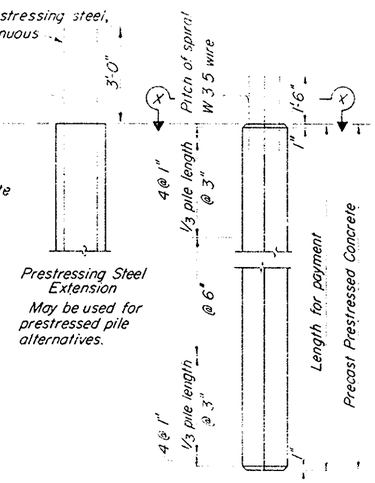
NOTE:
When "Alternative "U"" is driven with mandrel, shell thickness may be reduced to 0.134".



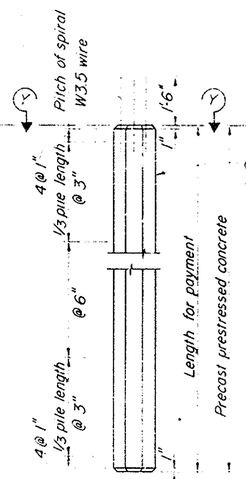
ALTERNATIVE "U"



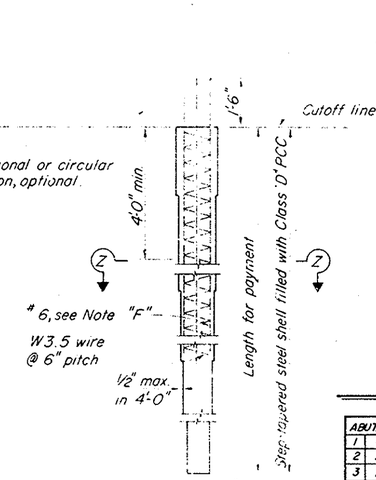
ALTERNATIVE "W"



ALTERNATIVE "X"



ALTERNATIVE "Y"



ALTERNATIVE "Z"

AS BUILT PILE DRIVING DATA

PILE DRIVER MAKE & MODEL	VULCAN 06
DRIVING ACTION	SINGLE ACTION
RATED ENERGY	19500 FT·lb
BEARING VALUE FORMULA	STD. SPEC. SECTION 305-1.5
$P = \frac{2E}{(S+0.1)}$	> 70 TON

	AVERAGE BLOW PER INCH	AVERAGE BEARING VALUE IN TONS
ABUT. No. 1	9	92
PIER No. 2	7	80
PIER No. 3	7	80
PIER No. 4	8	87
PIER No. 5	14	114
ABUT. No. 6	24	138

PILE TIP ELEVATION

ABUT. No. 1	PIER No. 2	PIER No. 3	PIER No. 4	PIER No. 5	ABUT. No. 6
1 4.16	-14.05	-12.65	-12.75	10.25	-9.04
2 2.43	-10.95	-11.95	-12.65	14.20	-10.38
3 2.19	-14.75	-12.75	-15.25	12.80	-10.27
4 2.36	-11.95	-12.25	-13.35	12.60	-10.86
5 1.43	-13.35	-13.25	-12.45	12.20	62 -15.62
	-12.35	-12.65	-12.95	12.20	
	-12.95	-12.55	-13.55	12.20	
	-12.35	-12.75	-13.25	13.00	
	-12.75	-13.05	-13.75	12.30	
	-15.25	-12.65	-12.95	11.10	
	-13.55	-12.65	-12.95	10.30	
	-13.35	-12.55	-13.25	11.70	
	18 -13.25	31 -12.55	44 -12.75	57 10.40	

A 10" minimum diameter pipe extension (thickness = 0.250" min.) may be used at the tip of Alternative "Z" when taper is 30' or more in length

PRECAST PRESTRESSED PILES:

P = Prestressing Force (After losses)

If section used is larger than the min. section shown, then "P" shall provide 700 psi. min.

Concrete strength: f'_c @ 28 days = 6,000 psi (Alternative "X")
5,000 psi (Alternative "Y")

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

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 courses.
   a. Bottom of footing.
   b. Top of final ground surface.
   c. Top of original ground surface when holes are drilled through embankment constructed by Contractor.
   d. Bottom of pre-drilled holes greater than pile diameter.

DESIGN LOADING = 70 TONS

#11359
BRIDGE SA-31
SHEET 11 of 14
RED. 22, :1
SEPIA

ORANGE COUNTY ROAD DEPARTMENT

SLATER-
SEGERSTROM BRIDGE
SA-31

PILING DETAILS

NO SCALE | SHEET 11 OF 14

DR. 12 (11359)