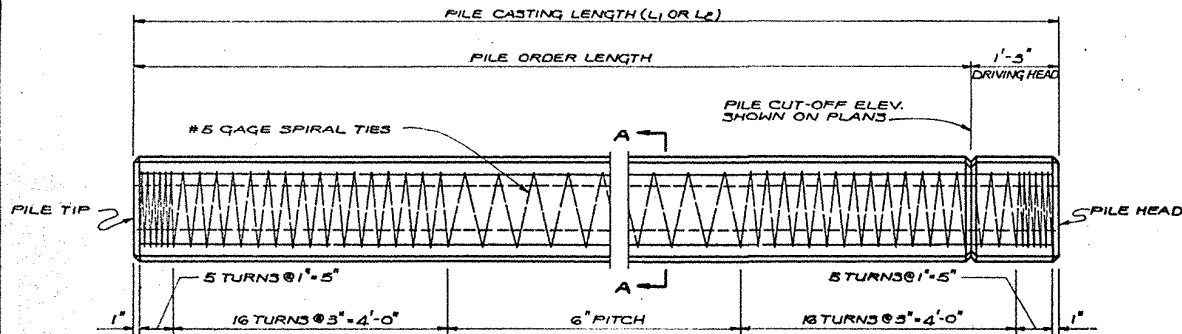
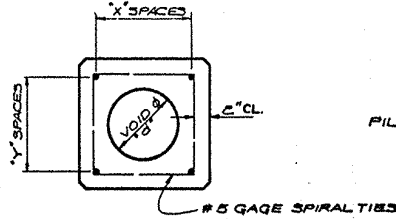
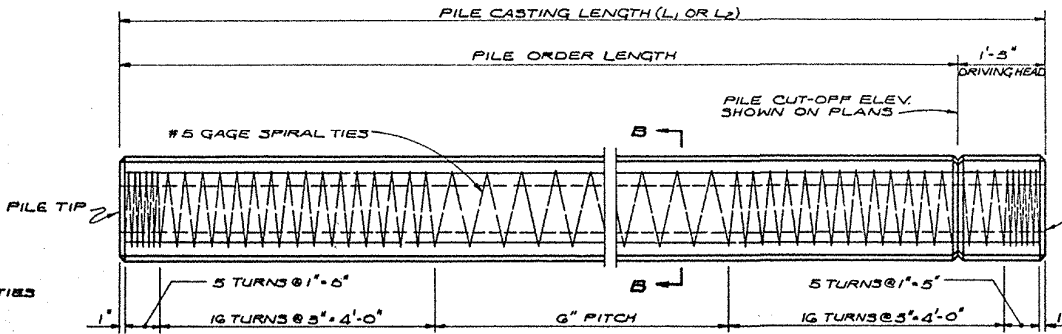




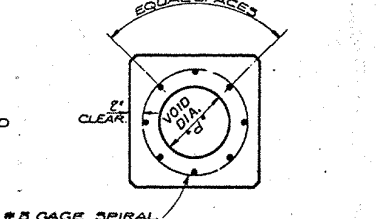
DETAILS OF 12-36 INCH SQUARE PRECAST P.C. PILES
(SHOWING SQUARE SPIRAL LAYOUT)



SECTION A-A
NOTE: VOID FOR 24", 30" & 36" PILES ONLY



DETAILS OF 12-36 INCH SQUARE PRECAST P.C. PILES
(SHOWING CIRCULAR SPIRAL LAYOUT)



SECTION B-B
NOTE: VOID FOR 24", 30" & 36" PILES ONLY

FILE PROPERTIES (SQUARE SPIRAL LAYOUT)																
FILE SIZE	N° OF STRAND		STRAND LAYOUT								INITIAL PRESTRESS P.S.I.					
			STANDARD				HIGH STRENGTH									
	STANDARD		HIGH 3GTH.		1/16" ϕ		1/8" ϕ		1/16" ϕ		1/8" ϕ		STANDARD		HIGH 3GTH.	
	1/16" ϕ	1/8" ϕ	1/16" ϕ	1/8" ϕ	X 3P	Y 3P	X 3P	Y 3P	X 3R	Y 3R	X 3P	Y 3P	1/16" ϕ	1/8" ϕ	1/16" ϕ	1/8" ϕ
12" SOLID	8	6	-	-	2	2	2	1	-	-	-	-	1058	1058	-	-
14" SOLID	10	8	-	-	3	2	2	2	-	-	-	-	970	1035	-	-
16" SOLID	14	10	12	10	4	3	3	2	3	3	3	2	1035	989	1022	1154
18" SOLID	16	12	14	12	4	3	3	3	4	3	3	3	937	937	941	1073
20" SOLID	22	16	18	16	6	5	4	4	5	4	4	3	1031	1018	988	1074
24" HOLLOW	24	18	22	16	6	6	5	4	6	5	4	4	990	990	1041	1009
30" HOLLOW	32	24	28	22	8	6	6	7	7	7	6	5	974	974	979	1004
36" HOLLOW	42	32	36	28	11	10	8	8	9	9	7	7	984	1000	969	1004

PILE PROPERTIES (CIRCULAR SPIRAL LAYOUT)									
FILE SIZE	Nº OF STRANDS		SPIRAL DIA. (OUT TO OUT)	INITIAL PRESTRESS P.S.I.					
	STANDARD	HIGH 36TH.		STANDARD	HIGH 36TH.				
	$\frac{1}{16}" \phi$	$\frac{1}{8}" \phi$		$\frac{1}{16}" \phi$	$\frac{1}{8}" \phi$				
12" SOLID	8	6	-	8	1058	1058	-	-	
14" SOLID	10	8	9	7	10	970	1035	1002 1038	
16" SOLID	14	10	12	9	12	1035	989	1022 1021	
18" SOLID	16	12	14	11	14	937	937	941 985	
20" SOLID	21	16	18	14	16	1004	1019	988 1023	
24" HOLLOW	24	18	21	16	20	990	990	994 1009	
30" HOLLOW	32	24	28	21	26	974	974	979 976	
36" HOLLOW	42	32	36	28	32	984	1000	999 1004	

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: LA. DEPT. OF HWYS. STD. SPECS. FOR ROADS AND BRIDGES, OCTOBER, 1966, AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: A.A.S.H.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1961, WITH THE LATEST AMENDMENTS.

CONCRETE: CONCRETE IN THE PRECAST PRESTRESSED PILES SHALL BE CLASS "B" CONCRETE. CONCRETE IN BUILD-UPS WITHOUT DRIVING SHALL BE CLASS "A" CONCRETE.

PRESTRESSING REINFORCEMENT: HIGH STRENGTH STRANDS SHALL BE TYPE 270 K, SEVEN-WIRE, UNCOATED, STRESS-RELIEVED STEEL STRANDS SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. DESIGNATION A-421, AS MODIFIED BY THE SPECIAL PROVISIONS. AN INITIAL TENSILE FORCE OF 21,700 LBS. SHALL BE APPLIED TO EACH 7/16" φ STRAND AND AN INITIAL TENSILE FORCE OF 28,510 LBS. SHALL BE APPLIED TO EACH 1/2" φ STRAND. STANDARD STRANDS SHALL BE SEVEN-WIRE, UNCOATED, STRESS-RELIEVED STEEL STRANDS & SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. DESIGNATION A-421, AS MODIFIED BY THE SPECIAL PROVISIONS. AN INITIAL TENSILE FORCE OF 19,500 LBS. SHALL BE APPLIED TO EACH 7/16" φ STRAND AND AN INITIAL TENSILE FORCE OF 25,200 LBS. SHALL BE APPLIED TO EACH 1/2" φ STRAND.

DEFORMED REINFORCING STEEL: REINFORCING BARS SHALL BE INTERMEDIATE OR HARD GRADE A.S.T.M. A15 OR A.S.T.M. A100 OR RAIL STEEL A.S.T.M. A10 AND SHALL CONFORM TO A.S.T.M. A305.

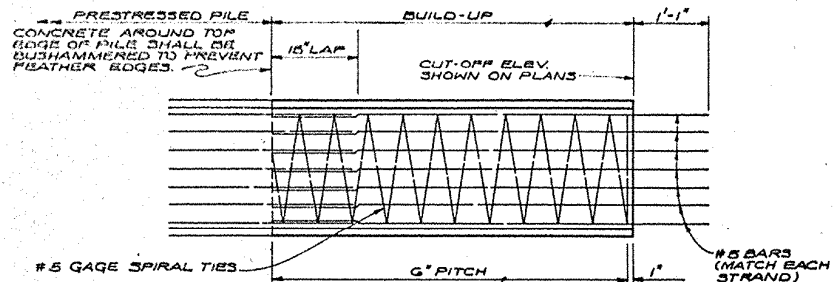
SPIRAL REINFORCING STEEL: #5 GAGE SPIRAL REINFORCEMENT SHALL BE PLAIN BARS AND MAY BE EITHER INTERMEDIATE, HARD, OR STRUCTURAL GRADE CONFORMING TO A.S.T.M. DESIGNATION A15, OR COLD DRAWN WIRE CONFORMING TO A.S.T.M. DESIGNATION A305 AS AMENDED IN THE SPECIAL PROVISIONS. IT WILL BE PERMISSIBLE TO SUBSTITUTE 1/4" INCH ROUND PLAIN REINFORCING OF THE SAME GRADE AND AT THE SAME SPACING FOR THE #5 GAGE SPIRAL TIES.

REINFORCEMENT DIMENSIONS: ALL DIMENSIONS TO REINFORCEMENT ARE TO BAR CENTERS EXCEPT AS NOTED.

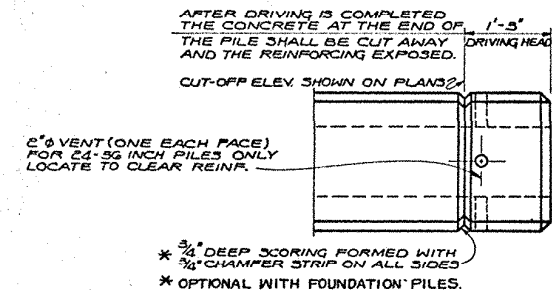
FABRICATION TOLERANCES: FABRICATION TOLERANCES OF THE PRESTRESSED CONCRETE PILE WILL BE AS REQUIRED BY A.A.S.H.O. TENTATIVE STANDARDS FOR PRECAST CONCRETE I-BEAMS FOR BRIDGES.

CHAMFERS AND CORNERS: ON PILES 18" OR SMALLER ALL EXPOSED CONCRETE CORNERS ARE TO HAVE 3/4" CHAMFERS. ON PILES 20" OR LARGER ALL EXPOSED CONCRETE CORNERS ARE TO HAVE 1 1/2" CHAMFER.

PICK-UP AND HANDLING: MAXIMUM LENGTHS FOR PICK-UP HAVE BEEN DETERMINED USING THE FOLLOWING STRESS ASSUMPTIONS: LOADING: 1 1/2 TIMES FULL DEAD LOAD. ALLOWABLE TENSILE STRESS: 2.4 X 10^5 PSI. STRESS AND LOADING CRITERIA ARE BASED ON CAREFUL HANDLING OF THE PILE. ROTATION OF PILE IN THE SLING IS TO BE PREVENTED UNTIL PILE IS IN VERTICAL POSITION. PICK-UP POINTS FOR ALL PILES TO BE CLEARLY MARKED ON PILE. PILES MAY BE MADE AT A CENTRAL PLANT AND TRANSPORTED TO THE BRIDGE SITE IN TRUCKS.

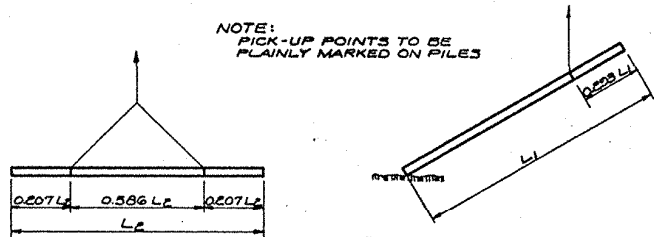


TYPICAL BUILD-UP WHERE
RE-DRIVING IS NOT REQUIRED



DETAIL OF PILE HEAD

NOTE:
NO DIRECT PAYMENT WILL BE MADE FOR THE DRIVING HEAD,
NOR WILL THE DRIVING HEAD BE INCLUDED IN MEASUREMENT
OF CUT-OFF.



2 POINT PICK-UP

1 POINT PICK-UP

NOTE: $L_1 + L_2$ = PILE CASTING LENGTH + PILE ORDER LENGTH + 1'-5"

PILE PROPERTIES (TYPICAL)						
PILE SIZE	WEIGHT PER LIN. FOOT	SECTION MODULUS OF CROSS SECTION	AREA OF NORMAL CROSS SECTION	VOID DIA. "d"	MAX. CASTING LENGTH 1 POINT PICK-UP L ₁	MAX. CASTING LENGTH 2 POINT PICK-UP L ₂
12" SOLID	150*	2.88 IN ³	144 IN ²	0.00	51'-3"	72'-3"
14" SOLID	204*	4.57 IN ³	196 IN ²	0.00	53'-3"	75'-3"
16" SOLID	267*	6.83 IN ³	256 IN ²	0.00	57'-3"	81'-3"
18" SOLID	338*	9.72 IN ³	324 IN ²	0.00	59'-3"	84'-3"
20" SOLID	417*	13.53 IN ³	400 IN ²	0.00	64'-3"	91'-3"
24" HOLLOW	482*	22.19 IN ³	463 IN ²	12.00"	77'-3"	105'-3"
30" HOLLOW	651*	41.00 IN ³	625 IN ²	18.70"	89'-3"	127'-3"
36" HOLLOW	845*	67.36 IN ³	811 IN ²	24.85"	100'-3"	143'-3"

PILES		
STANDARD PLAN		
12-14-16-18, 20, 24, 30 & 36 INCH		
PRECAST PRESTRESSED CONCRETE PILES		
DATED MARCH 17, 1966		
STATE OF LOUISIANA		
DEPARTMENT OF HIGHWAYS		
DESIGNED <i>F. Owen</i>	DETAILED <i>G. B. W.</i>	TRACED <i>M. M. M.</i>
CHECKED <i>James G. H.</i>	CHECKED <i>F. Owen</i>	CHECKED <i>F. Owen</i>
IN CHARGE OF		