

264

I-092.5(10)
11603 3 52

SCHEDULE OF BRIDGE QUANTITIES

NAME PLATE TITLE	CODE	BRIDGE NO.	UNIT OF BRIDGE	ITEM NO.	SP-801-2	SP-801-2	SP & 802	SP & 802	SP & 803	SP-804-4	SP-805-5	SP & 807	SP-909-5	929	
				ITEM	DRY EXCAVATION FOR STRUCTURES	WET EXCAVATION FOR STRUCTURES	CLASS A CONCRETE FOR BRIDGES	CLASS S CONCRETE FOR BRIDGES	REINFORCING STEEL	BEARING PILES (16")	ALUMINUM BRIDGE RAILING	STRUCTURAL STEEL IN BEAM SPANS	CONCRETE RIPRAP	BRIDGE NAME PLATES (TYPE C)	
				UNIT	CU. YD.	CU. YD.	CU. YD.	CU. YD.	LB.	LIN. FT.	LIN. FT.	LB.	CU. YD.	EACH	
7TH STREET INTERCHANGE	X 731	3130	END BENT NO. 1		62	-	-	15.55	1960	355	-	795	25.06	1	
			INTERMEDIATE BENT NOS. 2, 3, 4, 5 & 6		336	30	125.84	56.82	17740	2005	-	-	-	-	-
			END BENT NO. 7		62	-	-	15.55	1960	350	-	795	25.64	-	-
			2- 55' END COMPOSITE I-BEAM SPANS		-	-	-	87.90	14060	-	220.0	99310	-	-	-
			2- 65' INTERIOR COMPOSITE I-BM. SPANS		-	-	-	103.42	16700	-	260.0	128070	-	-	-
			2- 70' INTERIOR COMPOSITE I-BM. SPANS		-	-	-	111.06	17980	-	280.0	145830	-	-	-
TOTALS FOR BRIDGE NO. 3130, AND JOB NO. 11603					460	30	125.84	390.30	70400	2710	760.0	374800	50.70	1	

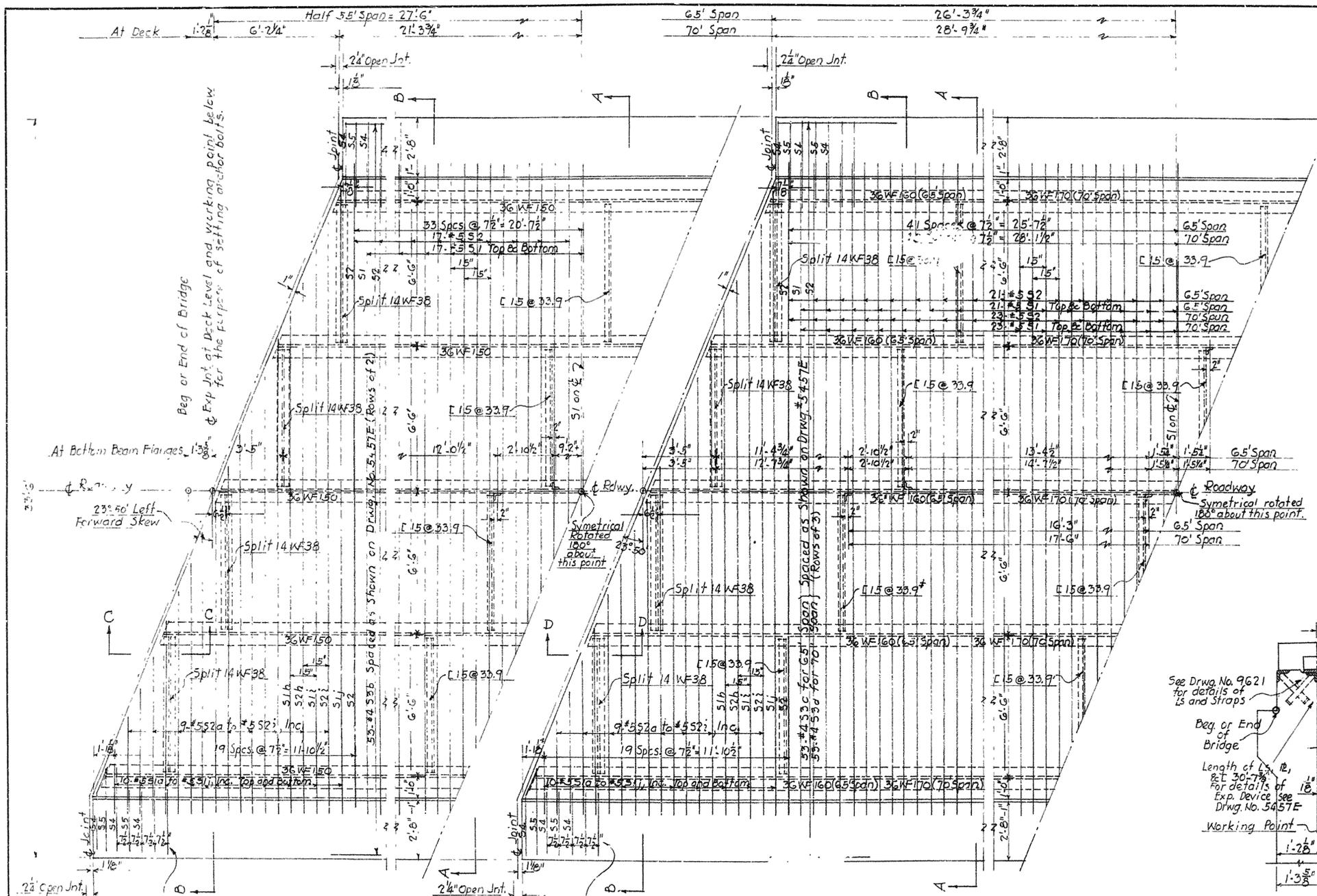
SCHEDULE OF BRIDGE QUANTITIES
 7TH STREET INTERCHANGE
 AT EXPRESSWAY STA. 145+20
 WEST MEMPHIS BYPASS - EAST
 CRITTENDEN COUNTY

ROUTE 31 SEC. 1
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: JA DATE: 12/16/57
 CHECKED BY: W.C.H. DATE: 1-3-58 SCALE: None
 BRIDGE NO. 3130 DRAWING NO. 9519

L.P. Johnson
 BRIDGE DESIGN ENGINEER

2103

I.97.5(10)
11603 10 32

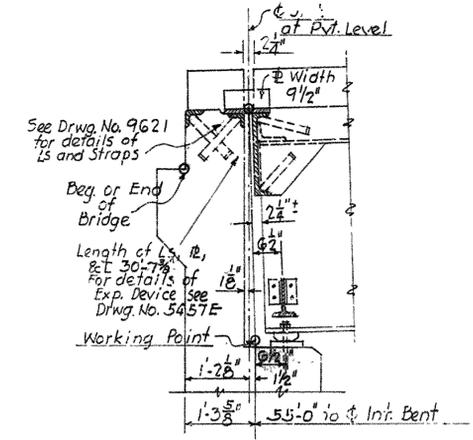


REBAR LIST FOR ONE SPAN

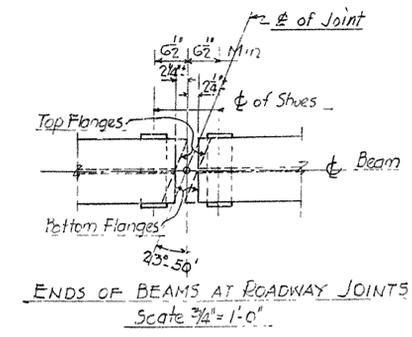
Mark	Size	No. per Span	Length	Str. or Bent	Pin Dia.	Bending Diagrams	
S1	#5	66	82.90	29.2	Str.	-	
S1a	4	4	4	2.9	-	-	
S1b	4	4	4	5.7	-	-	
S1c	4	4	4	8.5	-	-	
S1d	4	4	4	11.3	-	-	
S1e	4	4	4	14.1	-	-	
S1f	4	4	4	16.11	-	-	
S1g	4	4	4	19.9	-	-	
S1h	4	4	4	22.7	-	-	
S1i	4	4	4	25.5	-	-	
S1j	4	4	4	28.3	Str.	-	
S2	34	42	46	27.10	Bt.	3 1/2"	
S2a	2	2	2	4.3	-	-	
S2b	2	2	2	7.1	-	-	
S2c	2	2	2	10.0	-	-	
S2d	2	2	2	12.11	-	-	
S2e	2	2	2	15.10	-	-	
S2f	2	2	2	18.9	-	-	
S2g	2	2	2	21.8	-	-	
S2h	2	2	2	24.7	-	-	
S2i	#5	2	2	27.6	Bt.	3 3/4"	
S3a1	#4	12	-	17.9	Str.	-	
S3a2	-	12	-	21.1	-	-	
S3a3	-	12	-	27.9	-	-	
S3b	106	-	-	28.2	-	-	
S3c	-	159	-	22.7	-	-	
S3d	-	159	-	24.3	Str.	-	
S4	90	106	114	5.2	Bt.	3"	
S5	88	104	112	4.3	Bt.	3"	
S6	#4	90	126	114	5.4	Bt.	1 1/2"

For balance of Bending Diagrams, namely for Rebars marked S2, S4, S5 & S6, see Drawing No. 5457-E.

NOTES
All dimensions pertaining to Rebars are to ϕ of bar.
This Drwg. to be used in conjunction with Drwg. No. 5457-E.
For substructure details, see Drwg. Nos. 9621 and 9622.



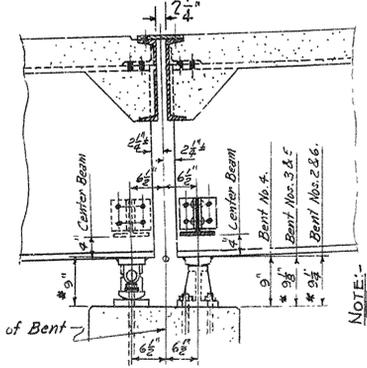
SECTION C-C Scale 3/4" = 1'-0"



SUPPLEMENTARY DETAILS OF SUPERSTRUCTURE BRIDGE NO. 3130 WEST MEMPHIS BYPASS-EAST CRITTENDEN COUNTY

ROUTE 61 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: [Signature] DATE: 12/2/57
TRACED BY: [Signature] DATE: 12-13-57
CHECKED BY: M.C.H. DATE: 12-13-57
BRIDGE NO. 3130 DRAWING NO. 9623
SCALE: 3/8" = 1'-0" (Except as Noted)

NOTE: For details not shown see Drawing No. 5457-E



SECTION D-D AT INT. BENTS Scale: 3/4" = 1'-0"

NOTE: Use one shim under each fixed shoe for these bents only or thicken the sole plate of fixed shoes in addition to shims under both exp. and fixed shoes for one line of beams at Bent No. 345. See Drwg. No. 9622.

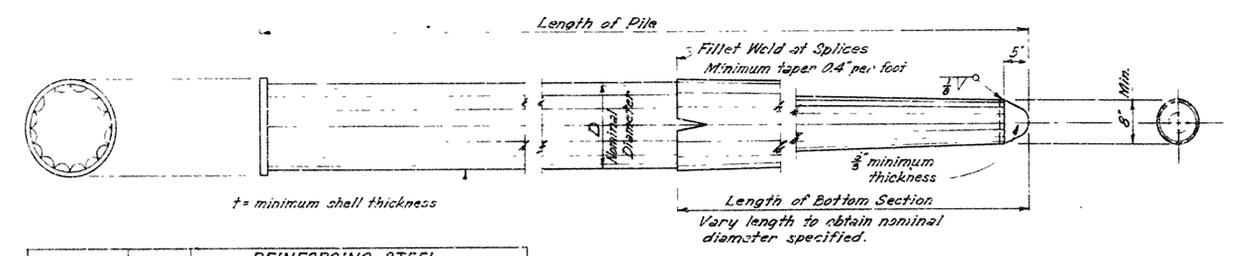
Continue #454 bars in top and #455 bars in bottom, alternating as shown @ 7 1/2" o.c., with the S4 bars spliced to the S1 bars and the S4 bars spliced to the S2 bars.
See Drwg. No. 5457-E for the balance of the curb rebars, namely the #456 and the #453a bars.
E.g. Sections AA and BB above, see Drwg. No. 5457-E, and on Section BB use length of 30'-3 3/8" for the Roadway E15 @ 33.9" and for the Roadway R, and a width of 9 1/2" for the curb portion of the Roadway R.

PARTIAL HALF PLAN END SPANS

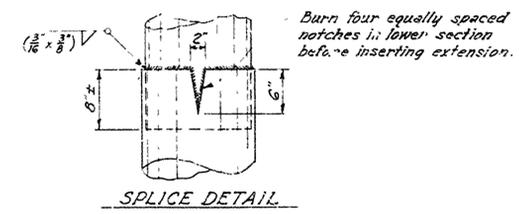
PARTIAL HALF PLAN INTERIOR SPANS

L.P. Carlson
BRIDGE DESIGN ENGINEER

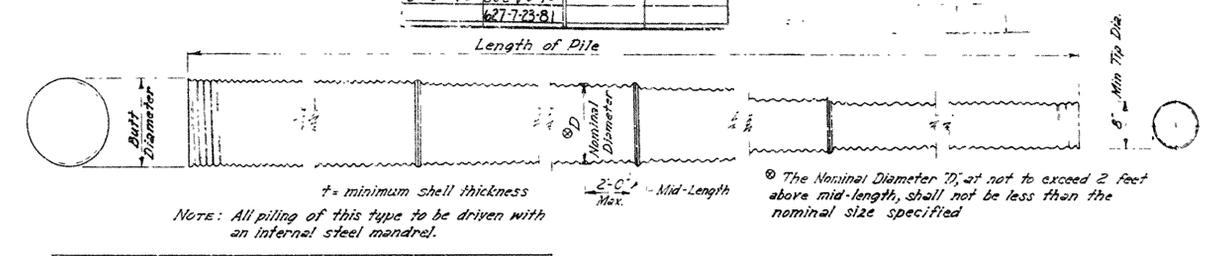
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
12-21-71	105-12-2171		
9-8-72	502-13-72		
	627-7-23-81		



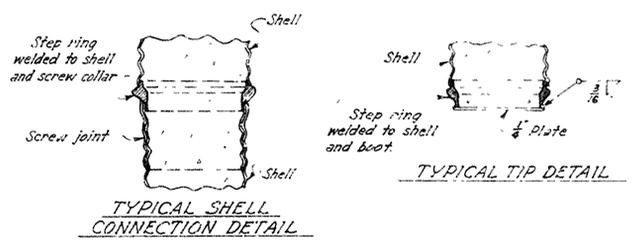
NOMINAL SIZE D	MIN SHELL THICK. t	REINFORCING STEEL	
		END BENT PILES BARS A	FOUND'N PILES BARS C
12"	7 Ga	4 - #6 x 3'-0"	4 - #6 x 4'-0"
14"	7 Ga	4 - #6 x 3'-0"	4 - #6 x 4'-0"
16"	7 Ga	4 - #6 x 3'-0"	4 - #6 x 4'-0"
18"	7 Ga	4 - #6 x 3'-0"	4 - #6 x 4'-0"



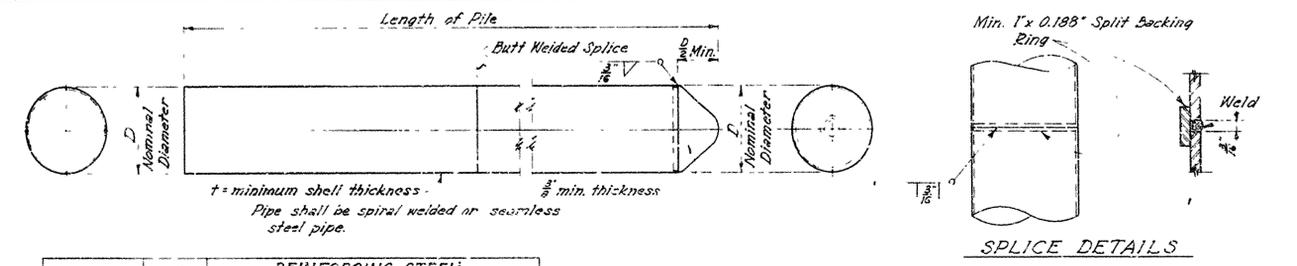
VERTICALLY FLUTED SHELL PILES



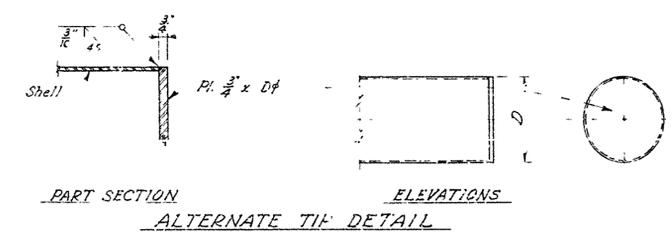
NOMINAL SIZE D	MIN SHELL THICK. t	REINFORCING STEEL		
		END BENT BARS BARS A	BARS B	FOUND'N PILES BARS C
12"	16 Ga	4 - #6	4 - #6	8 - #6 x 4'-0"
14"	16 Ga	4 - #6	4 - #6	8 - #6 x 4'-0"
16"	16 Ga	4 - #6	4 - #6	8 - #6 x 4'-0"
18"	16 Ga	4 - #6	4 - #6	8 - #6 x 4'-0"



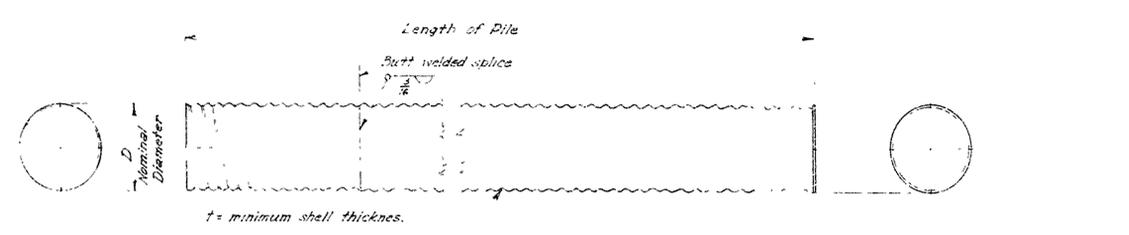
HORIZONTALLY CORRUGATED SHELL PILES



NOMINAL SIZE D	MIN SHELL THICK. t	REINFORCING STEEL	
		END BENT PILES BARS A	FOUND'N PILES BARS C
12"	0.172	4 - #6 x 3'-0"	4 - #6 x 4'-0"
14"	0.172	4 - #6 x 3'-0"	4 - #6 x 4'-0"
16"	0.172	4 - #6 x 3'-0"	4 - #6 x 4'-0"
18"	0.188	4 - #6 x 3'-0"	4 - #6 x 4'-0"

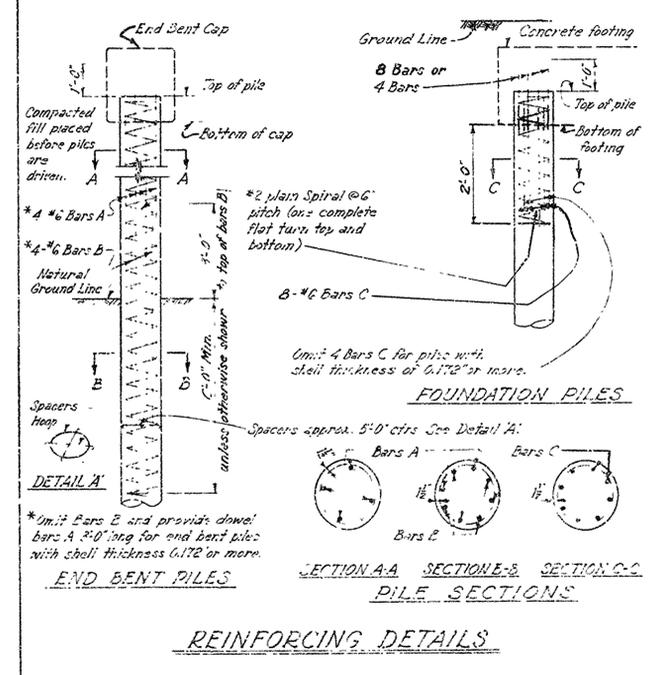


PLAIN ROUND SHELL PILES



NOMINAL SIZE D	MIN SHELL THICK. t	REINFORCING STEEL		
		END BENT PILES BARS A	BARS B	FOUND'N PILES BARS C
12"	16 Ga	4 - #6	4 - #6	8 - #6 x 4'-0"
14"	16 Ga	4 - #6	4 - #6	8 - #6 x 4'-0"
16"	16 Ga	4 - #6	4 - #6	8 - #6 x 4'-0"
18"	16 Ga	4 - #6	4 - #6	8 - #6 x 4'-0"

SPIRAL CORRUGATED ROUND SHELL PILES



GENERAL NOTES

Metal shells shall be filled with Class S Concrete after driving has been completed.

Reinforcing steel, except spirals, shall be deformed bars of 157.1 A615 Grade 40 unless otherwise modified by Special Provisions. Spiral reinforcing shall be plain bars of ASTM A62. Dimensions relating to reinforcing steel are to centers of bars. Payment for all reinforcing steel to be included in the unit price per linear foot bid for "Bearing Piles".

Pile size designated on the Bridge Layout is nominal diameter of pile. Gages of metal shown are in accordance with U.S. Standard Gage.

Splices, where necessary, shall be made as shown, or as recommended by the Manufacturer and approved by the Engineer. Cutoff or buildup will be paid for in accordance with the Standard Specifications.

DETAILS OF CONCRETE FILLED METAL SHELL PILES

12", 14", 16" & 18" NOMINAL SIZE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

Drawn by H.B. DATE 5-6-57

Traced by J.S. DATE 4-28-59

Checked by M.K. DATE 7-24-57

Tracing by T.H.H. DATE 9-27-57

Revised: 7-14-67 J.S. Reinf. Det. 7-24-67 AD

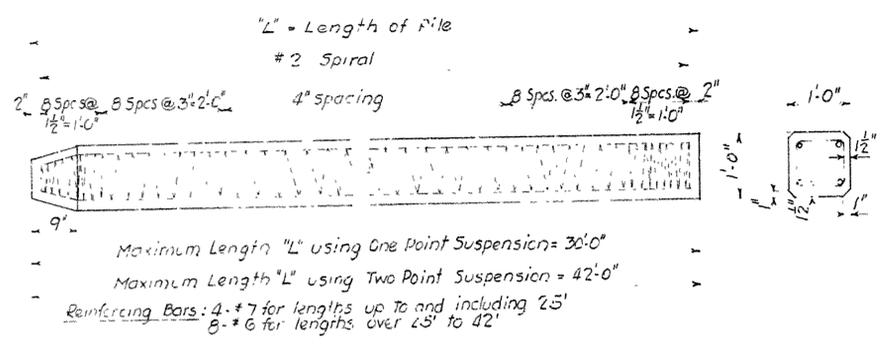
Reinf. Designation Rev. 12-21-71 CHD

8-8-72. Revised for 1972 Specs.

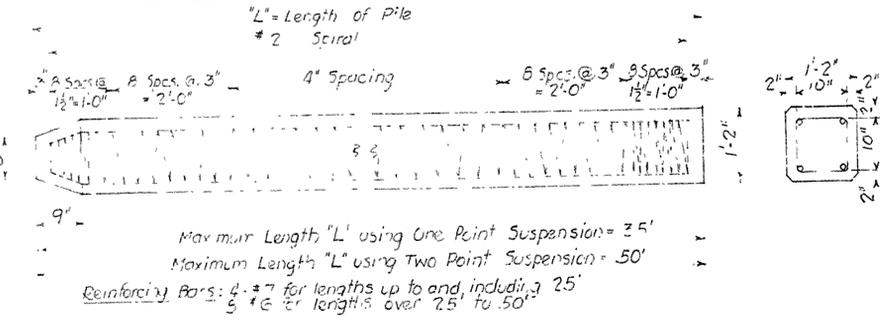
BRIDGE NO. _____

DRAWING NO. 2381A

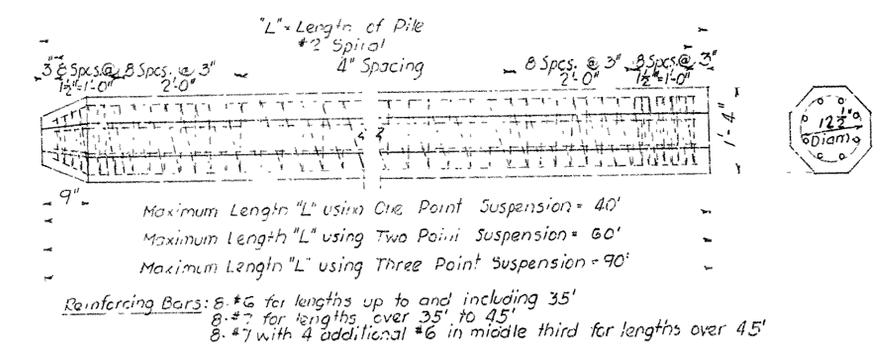
NO.	STATE	PLAN	YEAR	ET	TOTAL
6	2				
JUL 10					



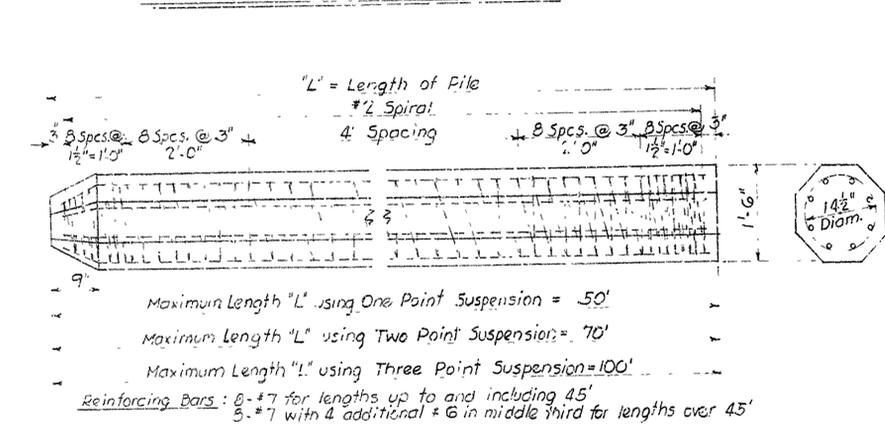
DETAILS OF 12" SQUARE PILE



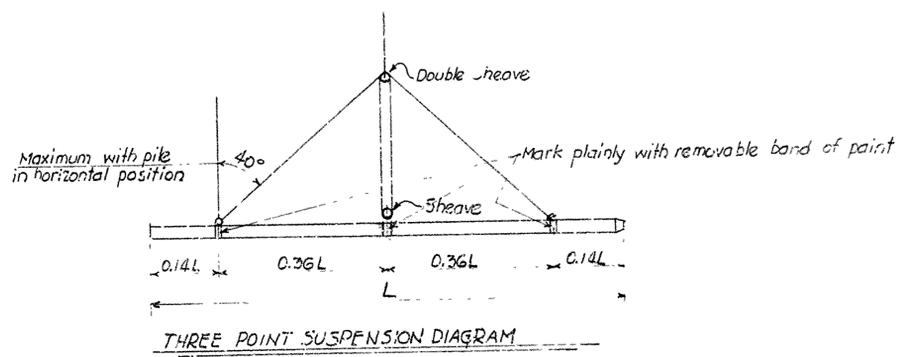
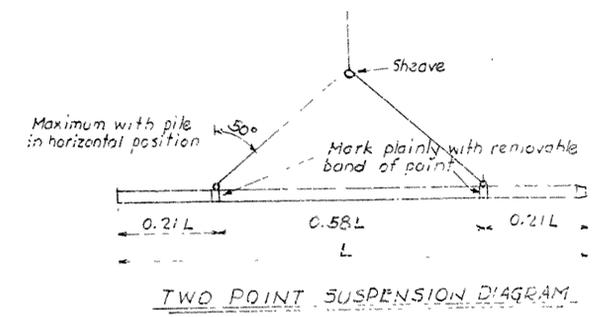
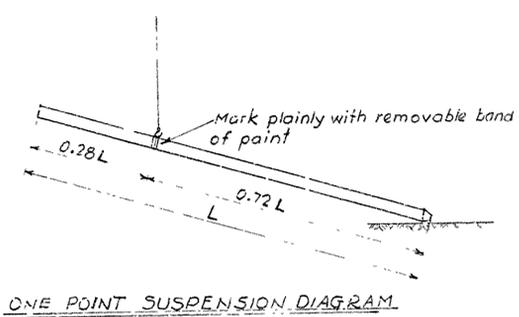
DETAILS OF 14" SQUARE PILE



DETAILS OF 16" OCTAGONAL PILE



DETAILS OF 18" OCTAGONAL PILE



GENERAL NOTES

All concrete to be Class "5"
Longitudinal reinforcing steel shall be determined bars of intermediate grade, unless otherwise modified by Special Provisions. Spiral shall be formed from plain round billet steel reinforcing bars.
SPECIFICATION 5: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959.

Prestressing Alternate:-

As an alternate to the reinforcement shown, these piles may be prestressed by the use of steel strands of high tensile cold-drawn uncoated stress-relieved wire strands having an ultimate tensile strength of not less than 250,000 p.s.i. and an elongation at rupture of not less than 3% in 10'; number and size of strands and prestressing load to be as follows:-

Pile Size	Wire Strands No.	Nominal Dia.	* Prestressing Force Per Strand
12" Square	8	3/16"	10,150*
14" Square	12	3/16"	10,150*
16" Octagonal	12	3/8"	14,000*
18" Octagonal	16	3/8"	14,000*

* Prestressing force to be not more than 0.7 of the ultimate value of strand.

To permit splicing for buildup, where necessary, of prestressed piles, reinforcing as shown in details shall be provided in butt end of pile for a length of 5' and 6' for No. 6 & No. 7 bars respectively.

Revisions:-
Provisions for prestressing 1-6-58 H.B.
Prestressing strands, forces 4-14-58 H.B.
Number Prestressing Strands 16" Pile 10-31-58 H.B.
General Notes 2-26-60 A.J.

DETAILS OF STANDARD PRECAST CONCRETE PILES

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: C.W.H. DATE: 7-26-56
TRACED BY: J.A. DATE: 4-21-58
CHECKED BY: D.K. DATE: 7-27-56
REVISIONS: (see above) DATE: 9-2-58
BRIDGE NO. DRAWING NO. 2382

C.P. Carlson
BRIDGE DESIGN ENGINEER

See Revised 5-22-61

