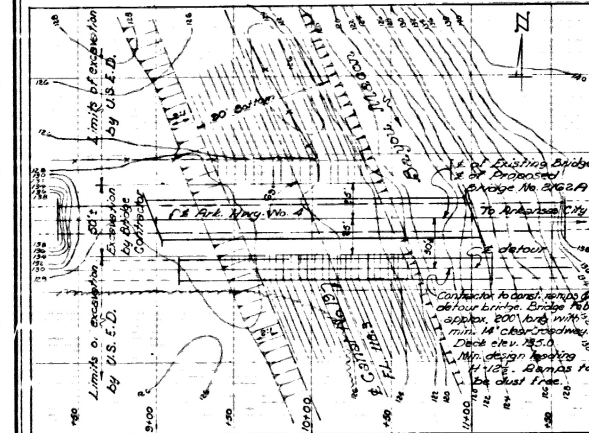


RIGHT OF WAY DATA

STA. TO STA.	LT. OF E	RT. OF E	TOTAL
6+50	12+50	50'	100'

Notes: Excavation of Canal No. 19 to within 20' of either side of E of Hwy. No. 4 to be performed by Corps of Engineers. Excavation under and adjacent to bridge shall be performed by the Contractor. Approximate 1900 cu yds.

Existing treated timber bridge approximately 325' long consisting of seventeen 19' spans, with 4" concrete surfacing on 4"x12" timber deck, 4"x16" timber stringers, 19' roadway, steel plate guard on 6"x6" timber post on eighteen 4-pile bents to be removed by Contractor.

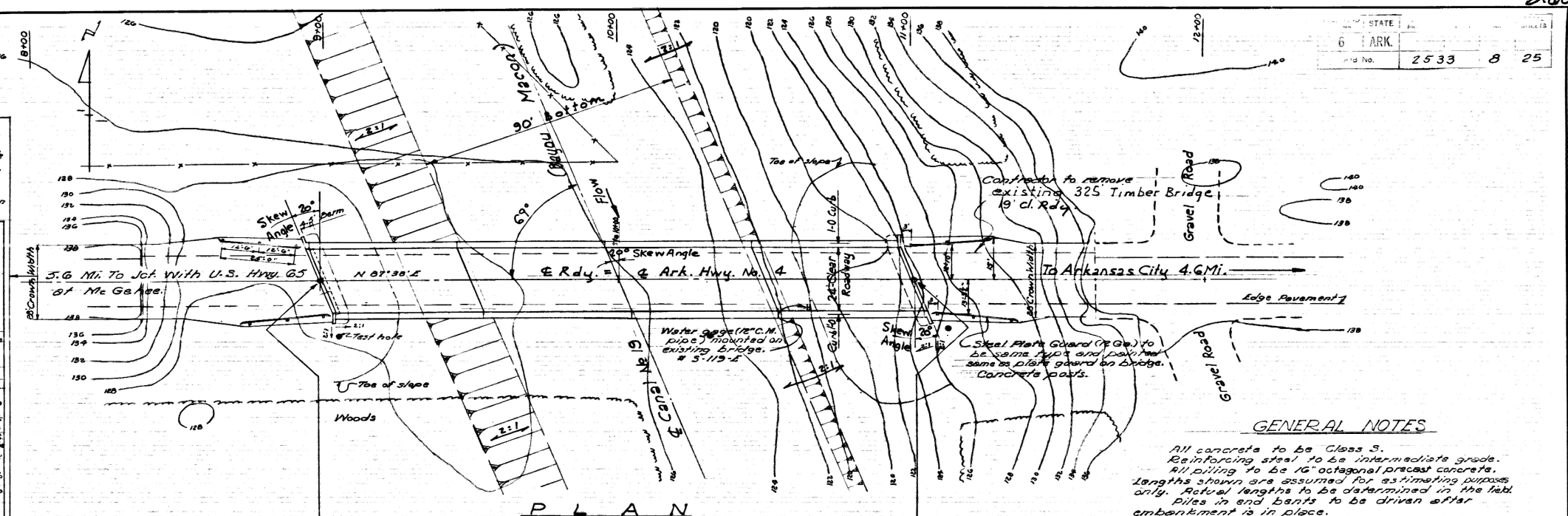


SKETCH OF BRIDGE LOCATION & CHANNEL CHANGE
Scale: 1" = 50'

ITEM NO.	ITEM	QUANTITY	UNIT
103	Dry Excavation for Structures	155.40	Cu. Yd.
S.P. 802	Class 3 Concrete for Bridges	25800	Lb.
S.P. 803	Reinforcing Steel	1085	Lin. Ft.
S.P. 804	Concrete Piling (16" Octagonal)	418.2	Lin. Ft.
S.P. 805-G	Steel Plate Guard (10 G. 2)	120140	Lb.
S.P. 807	Structural Steel in Beam Spans	1	Each
SR 1052-12	Removal of Existing Bridge Structures & Maintenance of Traffic (Br. 2162 R)	100%	Complete Item

DESIGN SPECIFICATIONS - A.A.S.H.O. 1953

LIVE LOADING	UNIT STRESSES
Class 3 Concrete (n=10)	1200 #/sq. in.
Reinforcing Steel (Int. grade)	20000 #/sq. in.
Structural Steel	10000 #/sq. in.



GENERAL NOTES

All concrete to be Class 3.
Reinforcing steel to be intermediate grade.
Piling to be 16" octagonal precast concrete.
Lengths shown are assumed for estimating purposes only. Actual lengths to be determined in the field.
Piles in end bents to be driven after embankment is in place.
Drive one pile in Bent No. 3 as a test pile.
Cast 45' long.
Drive piling to a minimum capacity of 34 tons per pile and a minimum penetration of 20'.
For Details of Std. Pile Bents, see Dwg. No. 3500M.
For Details of Std. 50' I-Beam Spans to Skew, see Dwg. Nos. 5500-0 & 5500-1.
SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted March 4, 1940.

LAYOUT OF BRIDGE
OVER CANAL NO. 19 (BAYOU MACON)
McGEHEE ARKANSAS CITY ROAD
DESHA COUNTY

ROUTE 4 SEC. 17
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: J.E.H. DATE: 5-20-56
CHECKED BY: J.W.C. DATE: 7-3-56
BRIDGE NO. 2162 A
DRAWING NO. 9138
SCALE: 1 inch = 20 feet

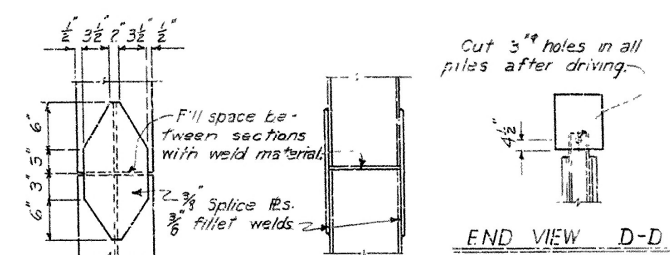
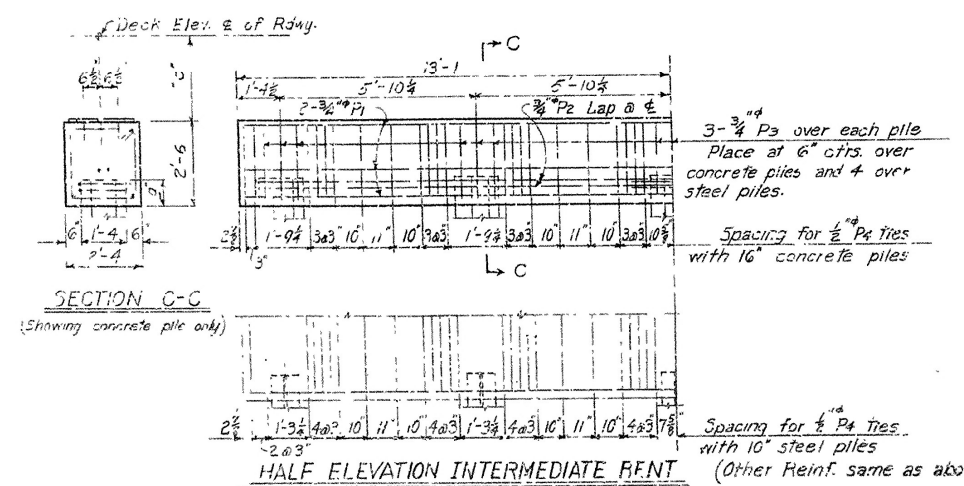
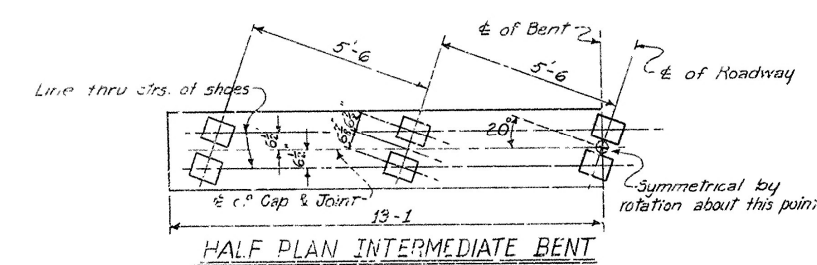
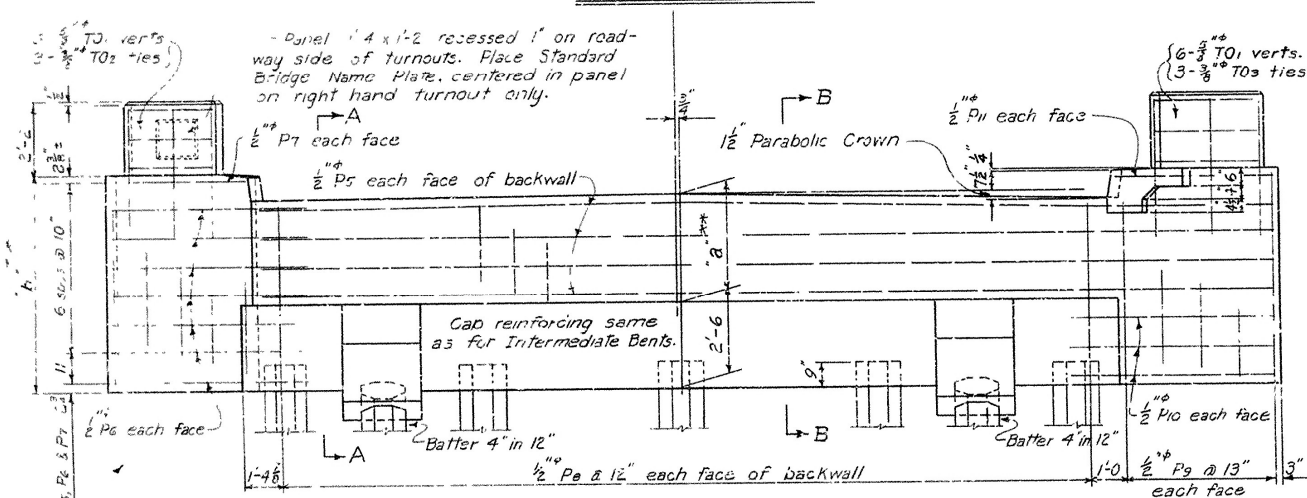
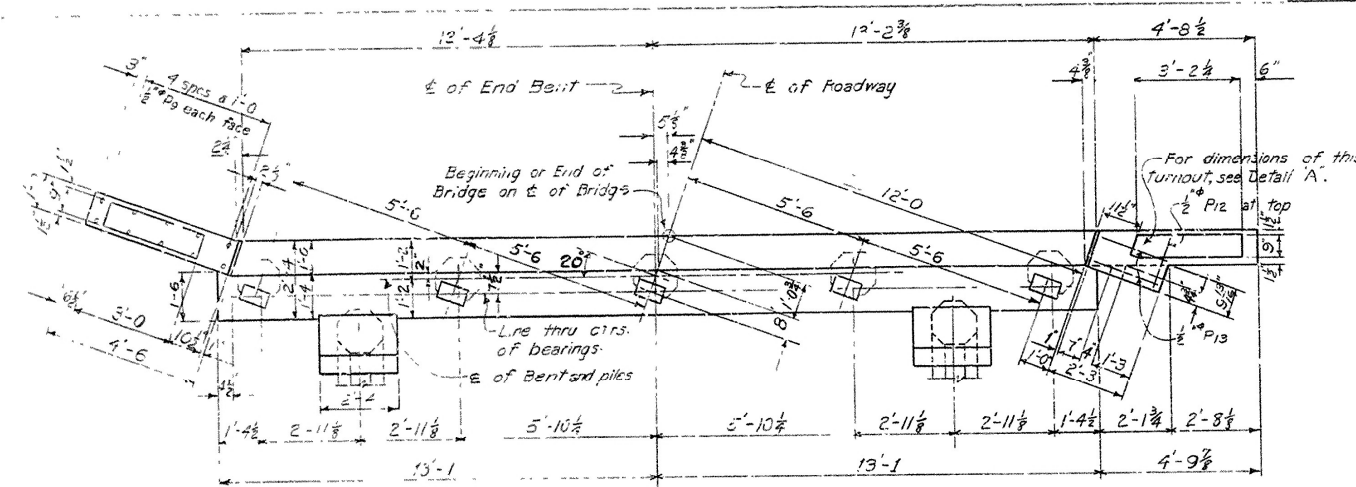
L.O. Caplen
BRIDGE DESIGN ENGINEER

DETAILS OF
STANDARD PILE BENTS
46' TO 55' I-BEAM SPANS
24'-0" CLEAR RDWY. 1'-0" CURBS
30° SKEW RT. FORWARD

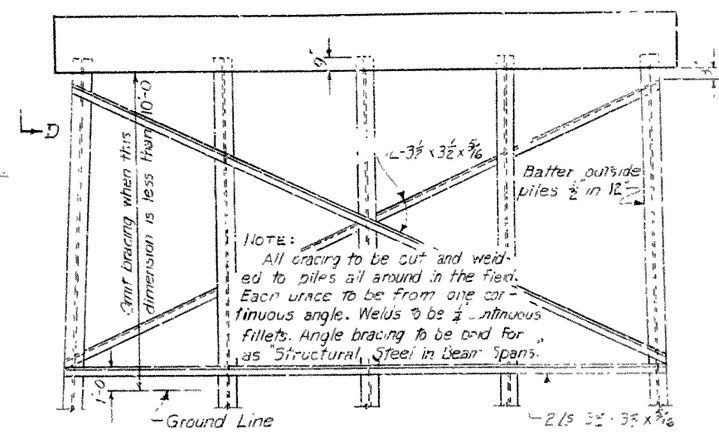
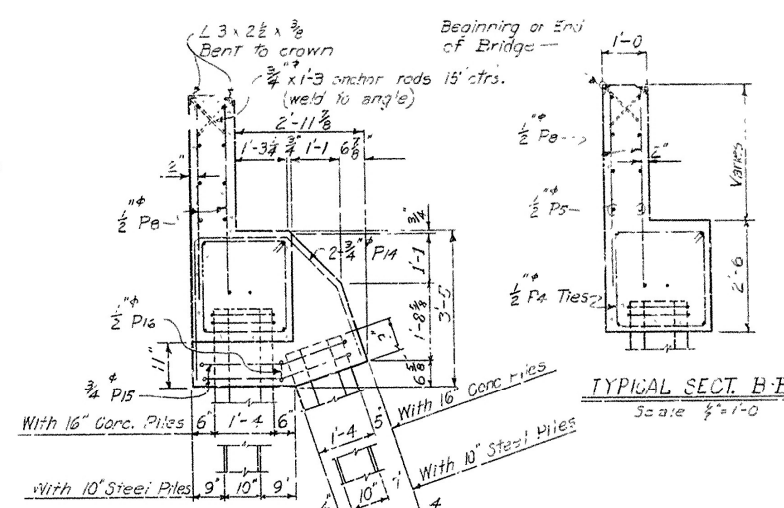
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: WJM Date: 3-30-53 Scale: 3/8" = 1'-0" EXCEPT
Traced By: WJM Date: 3-30-53 as noted
Checked By: WJM Date: 3-24-53

DRAWING NO. 5500L



Generally all piles shall be driven full length and shall not be spliced except by permission of the Engineer.



LIST OF REINFORCING STEEL

No.	Size	No. in Bars		Length	
		End	Int.		
P ₁	3/4"	2	6	25'-10"	STR
P ₂	"	4	4	28'-11"	
P ₃	"	15	15	6'-4"	
P ₄	3/2"	14	14	9'-1"	
P ₅	"	6		30'-4"	
P ₆	"	12		6'-0"	
P ₇	"	2		4'-2"	
P ₈	"	50		4'-8"	
P ₉	"	20		6'-0"	
P ₁₀	"	6		6'-9"	
P ₁₁	"	2		4'-6"	STR
P ₁₂	"	1		1'-6"	
P ₁₃	"	2		5'-0"	
P ₁₄	3/4"	4		8'-6"	
P ₁₅	"	4		11'-1"	
P ₁₆	1/2"	2		5'-5"	
T ₀₁	5/8"	12		4'-0"	
T ₀₂	3/4"	3		7'-0"	
T ₀₃	3/4"	3		7'-0"	

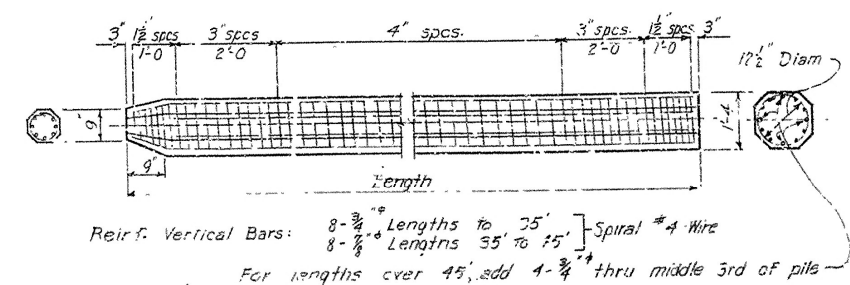
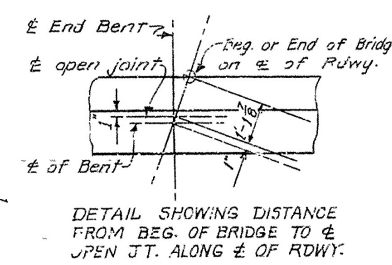
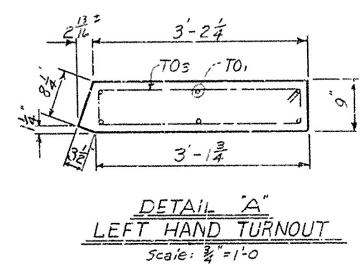
Bending Diagram

Hand-drawn bending diagrams for reinforcing steel bars P₁ through P₁₆ and T₀₁ through T₀₃. Each diagram shows the bar's profile with dimensions for length, width, and height. The diagrams are labeled with their respective bar numbers and show the placement of the bars within a structure.

Non-pay Items

Dimensions are to ctrs. of bars

LIST OF VARIABLES ^{**}			
Span	Vertical		Dimension
	a	b	c
46'	$3'-2\frac{3}{4}"$	$6'-1\frac{1}{2}"$	$3'-0\frac{3}{4}"$
47'	"	"	"
48'	"	"	"
49'	"	"	"
50'	"	"	"
51'	"	"	"
52'	"	"	"
53'	"	"	"
54'	$3'-2\frac{3}{4}"$	$6'-4\frac{3}{4}"$	$3'-6\frac{3}{4}"$
55'	"	"	"



When a single span bridge is used, dimensions "a" and "b" and lengths of P_8 and P_9 bars must be increased 4" to compensate for deeper wall required by use of expansion shoes. This is for one End Bent only.

NOTES

Steel Piles are to be driven to refusal. Concrete Piles to be driven to a minimum capacity of 34 Tons.

For details of Superstructure and General Notes see Dips. 5500-2 & 5500-3

Use type of Pile called for on Bridge Layout.

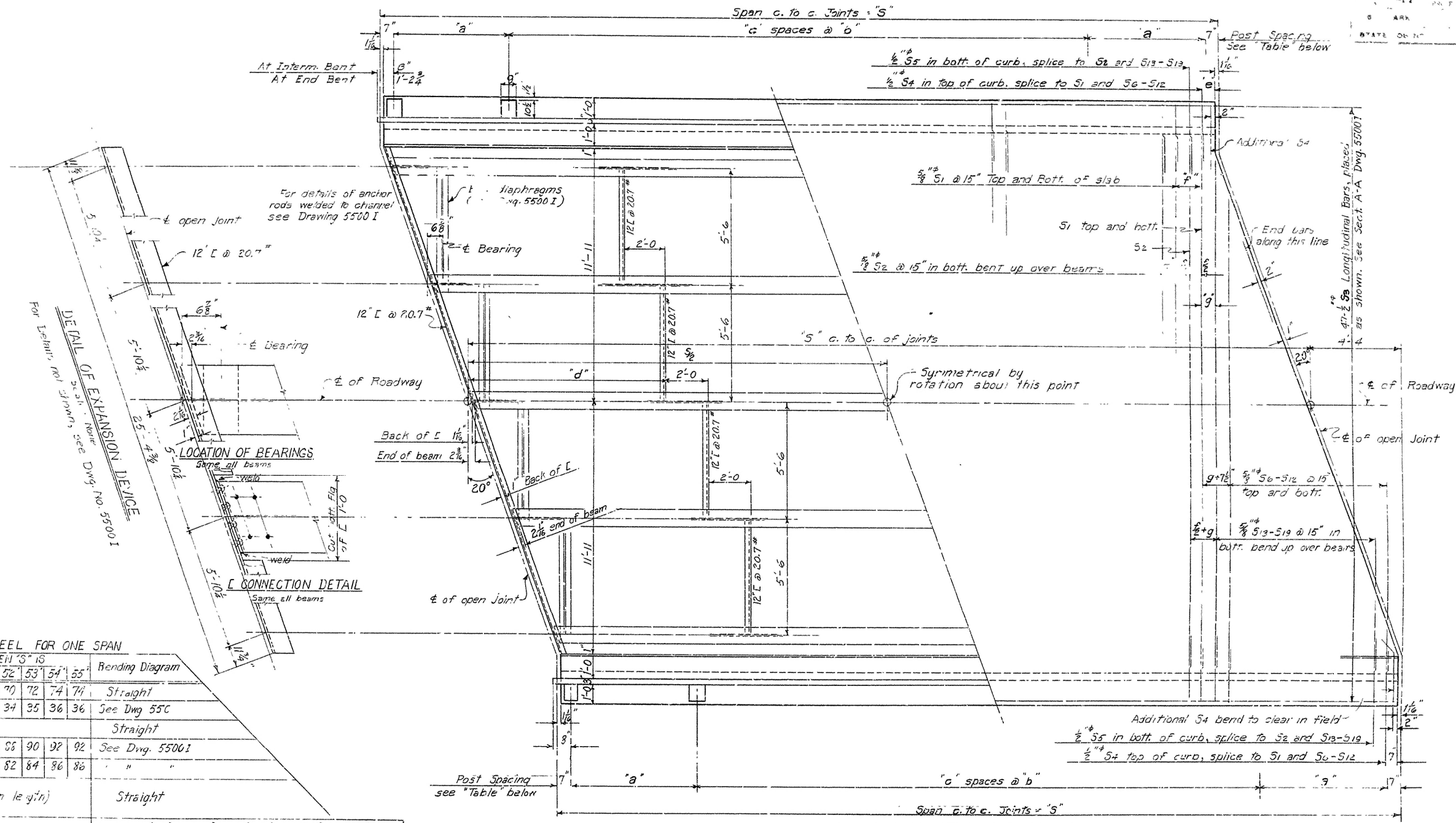
DETAILS OF
STANDARD PILE BENTS
46' TO 55' I-BEAM SPANS
24'-0" CLEAR RDWY. 1'-0" CURBS
20° SKEW RT. FORWARD

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: WMM Date: 2-20-53
Traced By: _____ Date: _____
Checked By: QAK Date: 4-22-53

Scale: $\frac{3}{8}'' = 1'-0''$
 $85' = 100'$

DRAWING NO. 5500N



LIST OF REINFORCING STEEL FOR ONE SPAN

NO. REQUIRED WHEN "S" IS

Mark	Size	Length	46'	47'	48'	49'	50'	51'	52'	53'	54'	55'	Bending Diagram
S ₁	$\frac{5}{8}$ "	25'-0"	60	62	64	66	68	70	72	74	74	75	Straight
S ₂	$\frac{5}{8}$ "	25'-11"	29	30	31	32	32	33	34	35	36	36	See Dwg. 550C
S ₃	$\frac{5}{8}$ "	25'-6"	94										Straight
S ₄	"	4'-4"	78	80	82	84	84	86	88	90	92	92	See Dwg. 5500I
S ₅	"	3'-0"	72	74	76	78	78	80	82	84	86	86	" "
S ₆	$\frac{5}{8}$ "	22'-3" to 1'-9"	28 (4 each leg 4' n)										Straight
			Varies by 3'-9"										
S ₁₃	$\frac{5}{8}$ "	24'-10"	2										A 1'-8 1/2"
S ₁₄	"	21'-4"	2										10'-2"
S ₁₅	"	17'-9"	2										4'
S ₁₆	"	14'-1"	2										2'-4 3/4"
S ₁₇	"	10'-7"	2										1'-8"
S ₁₈	"	7'-0"	2										1'-2"
S ₁₉	"	3'-6"	2										4 1/2"

46' to 51' spans 52' to 55'

P0 ₁	$\frac{5}{8}$ " #	5'-5"	36	40
P0 ₂	$\frac{5}{8}$ " #	2'-9"	54	60

See Dwg. 5500 I (Not a pay item)

Dimensions are to ctrs. of bars

Span c. to c. ft.	Reqd. WF	Post Spacing			Strut Spacing	Reinforcing Spacing			Camber
"5"	"	a	b	c	d	e	f	g	"x"
46'	30 WF 108	5'-6½"	5'-7½"	6	14'-4	7½"	1'-1	7"	⅝"
47'	"	5'-8	5'-9	6	14'-8	7"	1'-0	6½"	⅞"
48'	"	5'-9½"	5'-10½"	6	15'-0	6½"	11"	6"	¾"
49'	"	5'-11	6'-0	6	15'-4	6"	10"	5½"	13/16"
50'	"	6'-0½"	6'-1½"	6	15'-8	7"	1'-3	5¼"	⅞"
51'	30 WF 116	6'-2	6'-3	6	16'-0	6½"	1'-2	6"	⅞"
52'	"	5'-7	5'-8	7	16'-4	6"	1'-1	5½"	15/16"
53'	"	5'-9½"	5'-9	7	16'-8	5½"	1'-0	5"	1"
54'	30 WF 124	5'-11½"	5'-10½"	7	17'-0	6"	10"	5½"	1"
55'	"	5'-11	6'-0	7	17'-4	7"	1'-3	6½"	1⅛"

NOTES

For details not shown and General Notes,
see Drawing No. 5300 I
For details of ber.s. see Dwg. No. 5501 N

DETAILS OF STANDARD
46' TO 55' I-BEAM SPANS
24'-0" CLEAR RDWY. 1'-0" CURBS
20° SKEW RT. FORWARD
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: WMM Date: 4-6-53
Traced By: _____ Date: _____
Checked By: GMC Date: 4-23-53

DRAWING NO. 5500-0