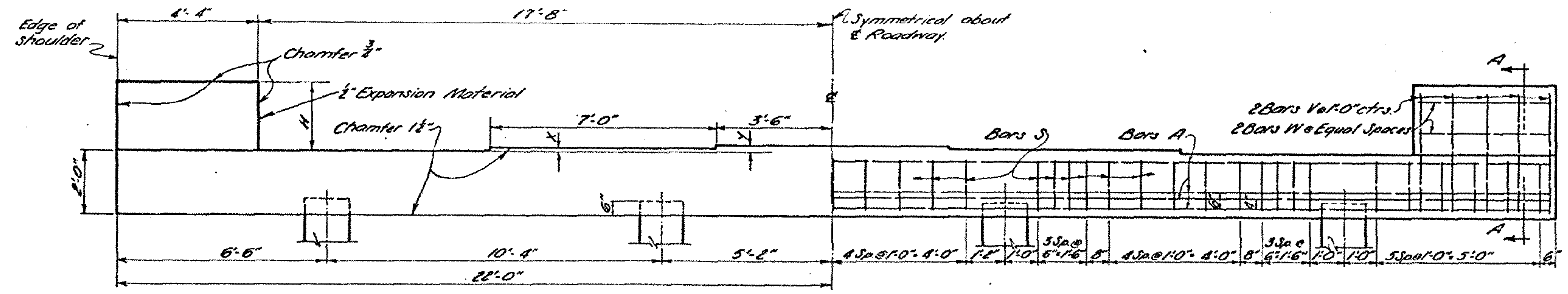
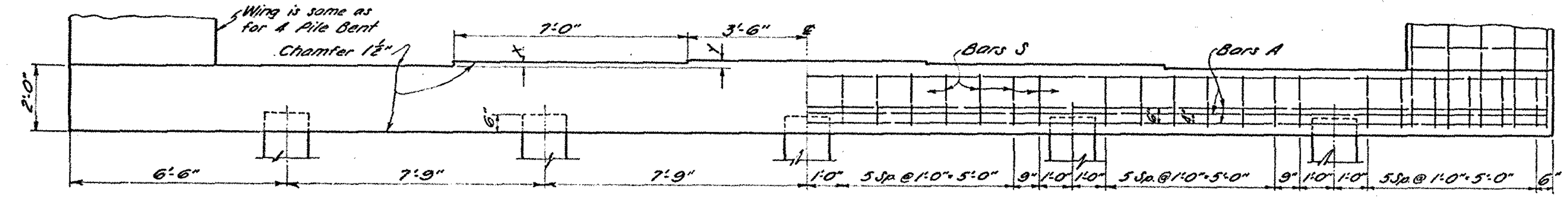
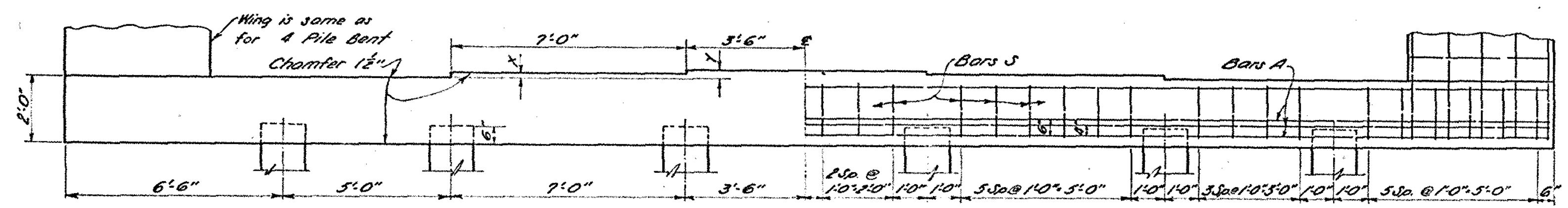


4 PILE BENT

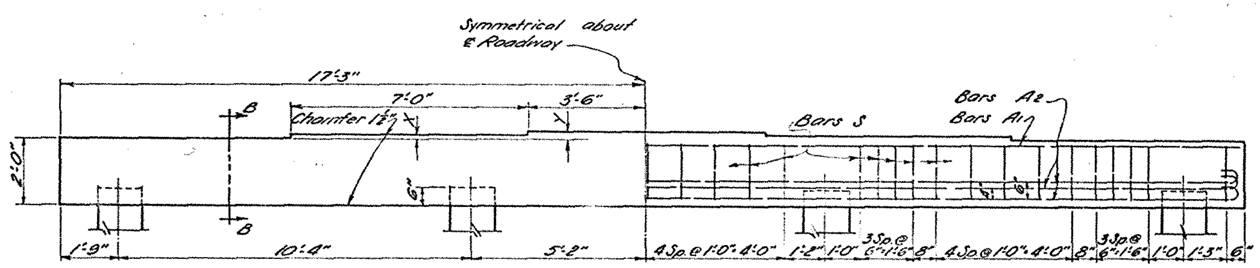


5 PILE BENT

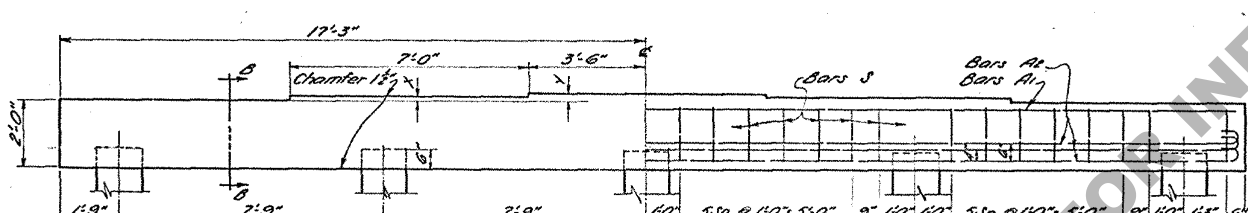


6 PILE BENT

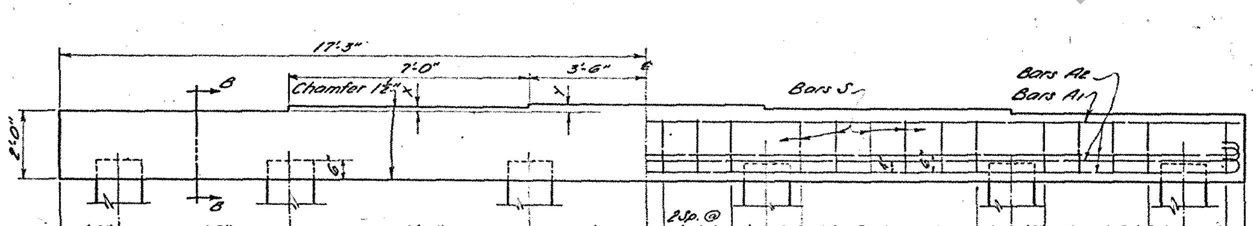
END BENTS



4 PILE BENT

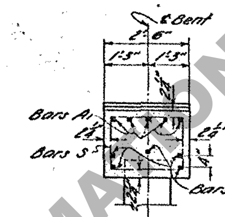


5 PILE BENT

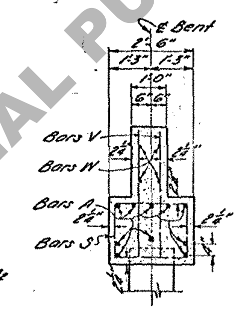


6 PILE BENT

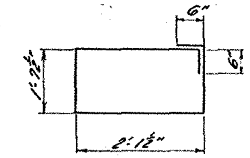
INTERMEDIATE BENTS



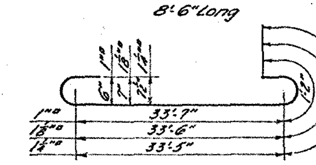
SECTION B-B



SECTION A-A



1/2"φ BARS S
8'-6" Long



BARS A2

SPANS	H
16'-18'	2'-0"
20'-24'	2'-2"
26'-28'	2'-5"
30'-32'	2'-8"

TABLE OF DIMENSIONS & ADD QUANTITIES FOR ALL BENTS

SPAN	DETAIL DIMENSIONS X In.	DETAIL DIMENSIONS Y In.	ADD QUANTITIES ALL BENTS CLASS "A" CONCRETE CU. YDS.
16'	1 3/4	2 3/8	.32
18'	1 3/4	2 3/8	.32
20'	1 3/4	2 3/8	.32
22'	1 5/8	2 1/4	.30
24'	2	2 5/8	.36
26'	1 7/8	2 1/2	.34
28'	1 5/8	2 1/4	.30
30'	1 7/8	2 1/2	.34
32'	1 3/4	2 3/8	.32

END BENTS 16 TO 32 FT. SPAN

16' To 18' Spans

Bar	No.	Size	Unit Length	Total Length
S 4 Pile Bent	47	1/2"φ	8'-6"	399'-6"
V	20	1/2"φ	3'-8"	73'-4"
W	8	1/2"φ	4'-0"	32'-0"
Total 1/2"φ Bars	4 Pile Bents - 504'-10" - 337#			
A 4 Pile Bent	10	1"□	43'-8"	436'-8"
Total 1" Bars	4 Pile Bent - 436'-8" - 1485#			
4 Pile Bent	Class "A" Conc. - 8.66 Cu.Yd.	Reinf. Steel - 1822 Lbs.		

20' To 24' Spans

Bar	No.	Size	Unit Length	Total Length
S 4 Pile Bent	47	1/2"φ	8'-6"	399'-6"
S 5 Pile Bent	40	1/2"φ	8'-6"	340'-0"
V	20	1/2"φ	3'-10"	76'-8"
W	8	1/2"φ	4'-0"	32'-0"
Total 1/2"φ Bars	4 Pile Bent - 508'-2" - 339#; 5 Pile Bent - 448'-8" - 300#			
A 4 Pile Bent	10	1 1/8"□	43'-8"	436'-8"
A 5 Pile Bent	10	1"□	43'-8"	436'-8"
Total 1 1/8" Bars	4 Pile Bent - 436'-8" - 2320#			
Total 1" Bars	5 Pile Bent - 436'-8" - 1485#			
4 Pile Bent	Class "A" Conc. - 8.71 Cu.Yds.	Reinf. Steel - 2659 Lbs.		
5 Pile Bent	Class "A" Conc. - 8.68 Cu.Yd.	Reinf. Steel - 1785 Lbs.		

26' To 28' Spans

Bar	No.	Size	Unit Length	Total Length
S 5 Pile Bent	40	1/2"φ	8'-6"	340'-0"
V	20	1/2"φ	4'-1"	81'-8"
W	8	1/2"φ	4'-0"	32'-0"
Total 1/2"φ Bars	5 Pile Bent - 453'-8" - 303#			
A 5 Pile Bent	10	1 1/8"□	43'-8"	436'-8"
Total 1 1/8" Bars	5 Pile Bent - 436'-8" - 1879#			
5 Pile Bent	Class "A" Conc. - 8.76 Cu.Yds.	Reinf. Steel - 2182 Lbs.		

30' To 32' Spans

Bar	No.	Size	Unit Length	Total Length
S 5 Pile Bent	40	1/2"φ	8'-6"	340'-0"
S 6 Pile Bent	38	1/2"φ	8'-6"	323'-0"
V	20	1/2"φ	4'-4"	86'-8"
W	8	1/2"φ	4'-0"	32'-0"
Total 1/2"φ Bars	5 Pile Bent - 458'-8" - 306#; 6 Pile Bent - 441'-8" - 295#			
A 5 Pile Bent	10	1 1/4"□	43'-8"	436'-8"
A 6 Pile Bent	10	1"□	43'-8"	436'-8"
Total 1 1/4" Bars	5 Pile Bent - 436'-8" - 2320#			
Total 1" Bars	6 Pile Bent - 436'-8" - 1485#			
5 Pile Bent	Class "A" Conc. - 8.84 Cu.Yds.	Reinf. Steel - 2626 Lbs.		
6 Pile Bent	Class "A" Conc. - 8.81 Cu.Yds.	Reinf. Steel - 1780 Lbs.		

INTERMEDIATE BENTS 16 TO 32 FT. SPANS

16' To 18' Spans

Bar	No.	Size	Unit Length	Total Length
S 4 Pile Bent	37	1/2"φ	8'-6"	314'-6"
Total 1/2"φ Bars	4 Pile Bent - 314'-6" - 210#			
A1 4 Pile Bent	5	1"□	34'-2"	170'-10"
A2 4 Pile Bent	5	1"□	35'-11"	179'-7"
Total 1" Bars	4 Pile Bent - 350'-5" - 1191#			
4 Pile Bent	Class "A" Conc. - 6.26 Cu.Yds.	Reinf. Steel - 1401 Lbs.		

20' To 24' Spans

Bar	No.	Size	Unit Length	Total Length
S 4 Pile Bent	37	1/2"φ	8'-6"	314'-6"
S 5 Pile Bent	30	1/2"φ	8'-6"	255'-0"
Total 1/2"φ Bars	4 Pile Bent - 314'-6" - 210#; 5 Pile Bent - 255'-0" - 170#			
A1 4 Pile Bent	5	1 1/8"□	34'-2"	170'-10"
A1 5 Pile Bent	5	1"□	34'-2"	170'-10"
A2 4 Pile Bent	5	1 1/8"□	36'-5"	182'-1"
A2 5 Pile Bent	5	1"□	35'-11"	179'-7"
Total 1 1/8" Bars	4 Pile Bent - 352'-11" - 1875#			
Total 1" Bars	5 Pile Bent - 350'-5" - 1191#			
4 Pile Bent	Class "A" Conc. - 6.26 Cu.Yds.	Reinf. Steel - 2085 Lbs.		
5 Pile Bent	Class "A" Conc. - 6.22 Cu.Yds.	Reinf. Steel - 1361 Lbs.		

26' To 28' Spans

Bar	No.	Size	Unit Length	Total Length
S 5 Pile Bent	30	1/2"φ	8'-6"	255'-0"
Total 1/2"φ Bars	5 Pile Bent - 255'-0" - 170#			
A1 5 Pile Bent	5	1 1/8"□	34'-2"	170'-10"
A2 5 Pile Bent	5	1 1/8"□	36'-2"	180'-10"
Total 1 1/8" Bars	5 Pile Bent - 351'-8" - 1513#			
5 Pile Bent	Class "A" Conc. - 6.22 Cu.Yds.	Reinf. Steel - 1683 Lbs.		

30' To 32' Spans

Bar	No.	Size	Unit Length	Total Length
S 5 Pile Bent	30	1/2"φ	8'-6"	255'-0"
S 6 Pile Bent	28	1/2"φ	8'-6"	238'-0"
Total 1/2"φ Bars	5 Pile Bent - 255'-0" - 170#; 6 Pile Bent - 238'-0" - 159#			
A1 5 Pile Bent	5	1 1/4"□	34'-2"	170'-10"
A1 6 Pile Bent	5	1"□	34'-2"	170'-10"
A2 5 Pile Bent	5	1 1/4"□	36'-5"	182'-1"
A2 6 Pile Bent	5	1"□	35'-11"	179'-7"
Total 1 1/4" Bars	5 Pile Bent - 352'-11" - 1875#			
Total 1" Bars	6 Pile Bent - 350'-5" - 1191#			
5 Pile Bent	Class "A" Conc. - 6.22 Cu.Yds.	Reinf. Steel - 2045 Lbs.		
6 Pile Bent	Class "A" Conc. - 6.19 Cu.Yds.	Reinf. Steel - 1350 Lbs.		

DESIGN LOAD - NUMBER AND SIZE OF PILES

SPAN STD. S-C-42-20	END BENT *Total Design Load in Tons	END BENT Min. Size & No. of Piles & Av. Pile Load in Tons	INTERMEDIATE BENT Total Design Load in Tons	INTERMEDIATE BENT Min. Size & No. of Piles & Av. Pile Load in Tons
16'	93.7	14"□-4 @ 23.4 Tons 16"□-4 @ 23.4 Tons	93.7	14"□-4 @ 23.4 Tons 16"□-4 @ 23.4 Tons
18'	102.7	14"□-4 @ 25.7 Tons 16"□-4 @ 25.7 "	102.7	14"□-4 @ 25.7 Tons 16"□-4 @ 25.7 "
20'	110.8	14"□-4 @ 27.7 Tons 16"□-4 @ 27.7 "	110.8	14"□-4 @ 27.7 Tons 16"□-4 @ 27.7 "
22'	118.1	14"□-5 @ 23.6 Tons 16"□-4 @ 29.5 "	118.1	14"□-5 @ 23.6 Tons 16"□-4 @ 29.5 "
24'	125.1	14"□-5 @ 25.0 Tons 16"□-4 @ 31.3 "	125.1	14"□-5 @ 25.0 Tons 16"□-4 @ 31.3 "
26'	131.3	14"□-5 @ 26.3 Tons 16"□-5 @ 26.3 "	131.3	14"□-5 @ 26.3 Tons 16"□-5 @ 26.3 "
28'	137.3	14"□-5 @ 27.5 Tons 16"□-5 @ 27.5 "	137.3	14"□-5 @ 27.5 Tons 16"□-5 @ 27.5 "
30'	143.7	14"□-6 @ 24.0 Tons 16"□-5 @ 28.7 " 18"□-5 @ 28.7 "	143.7	14"□-6 @ 24.0 Tons 16"□-5 @ 28.7 " 18"□-5 @ 28.7 "
32'	149.3	14"□-6 @ 24.9 Tons 16"□-5 @ 29.9 " 18"□-5 @ 29.9 "	149.3	14"□-6 @ 24.9 Tons 16"□-5 @ 29.9 " 18"□-5 @ 29.9 "

Max. Pile Loads Unless Otherwise Instructed By Br. Design Section.
14"□ R.C. Piles = 28 Tons Per Pile.
16"□ R.C. Piles = 32 Tons Per Pile.
18"□ R.C. Piles = 36 Tons Per Pile.

** To provide for future extension of Bridge, the End Bents are Designed for same Load as Intermediate Bents.

GENERAL NOTES:
Construction Specs. - Latest approved La. Hwy. Dept. Std. Specs.
Design Specifications - AASHO, 1944.
Live Load H20 S16 1944.
All concrete to be Class "A."
All dimensions to reinforcing steel are to bar centers.
Quantities computed assuming use of 16"□ piling.
Cost of expansion material to be included in price bid for other items.

NOTE:
For Details of concrete piles see Std. Plan C-5-149.

DATE	DESCRIPTION	BY
7-8-49	Note Covering Max. Pile Loading	W.O.W.G.
6-22-48	Reference to pile lgths. omitted	G.H.

REVISIONS

STANDARD PLAN
REINFORCED CONCRETE PILE BENTS
FOR I-BM. SPANS ~ H20S16(1944) LOADING
30'-0" CLEAR ROADWAY ~ 1'-6" SIDEWALKS
TO BE USED WITH STD. PLAN S-C-42-20
16 FT. TO 32 FT. SPANS
DATED March, 1946

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED W.O.W. Gaskey DETAILED W.O.W. Gaskey TRACED G. Hunt
CHECKED Nass CHECKED Nass CHECKED Nass
IN CHARGE OF J. Allen HEAD BRIDGE DRAFTSMAN

FOR INFORMATIONAL PURPOSES ONLY