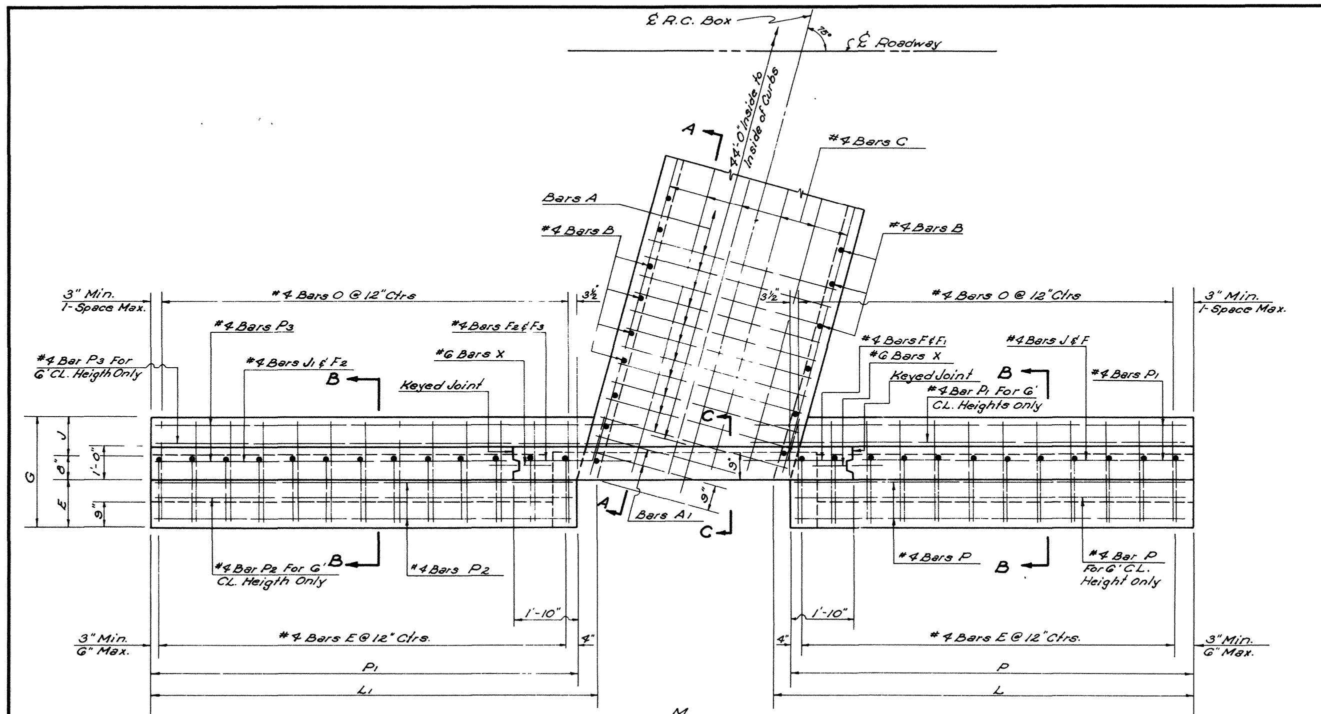
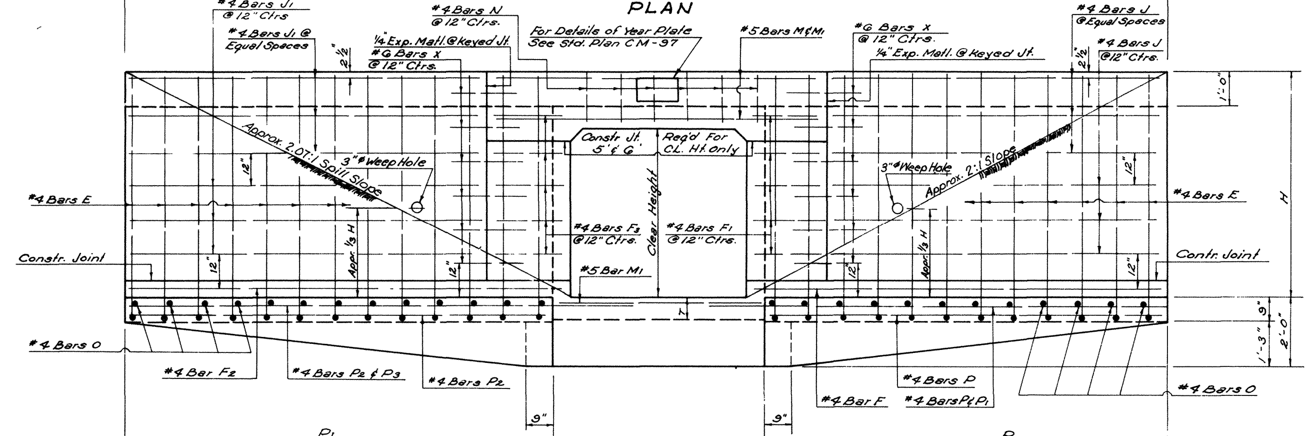
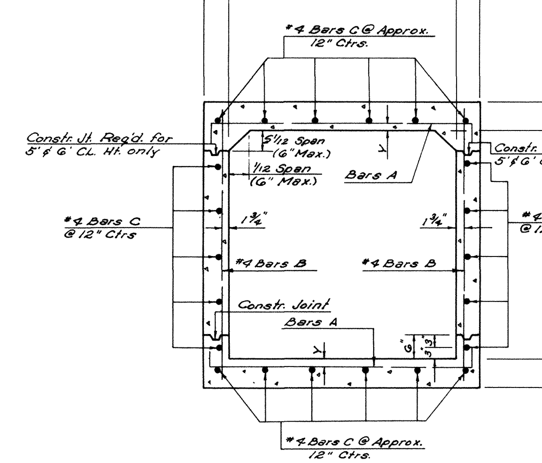
STATE PROJECT	PARISH	SHEET NO.



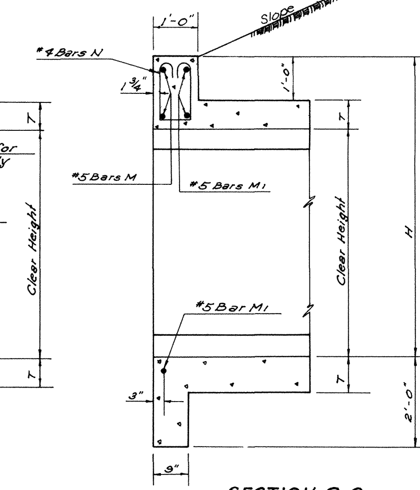
PLAN



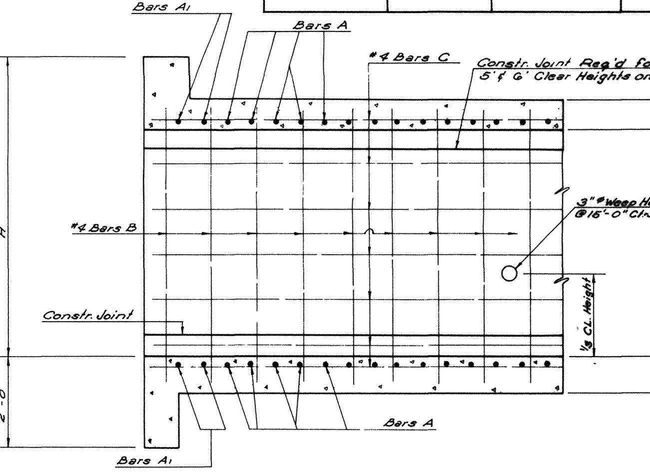
END ELEVATION



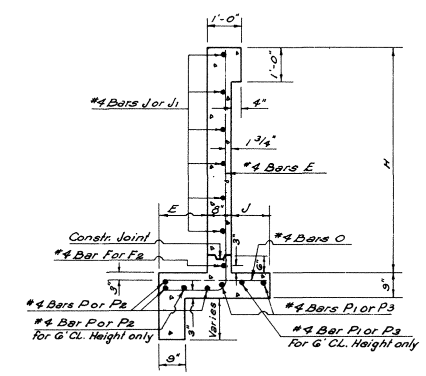
SECTION THRU BARREL



SECTION C-C



SECTION A-A



SECTION B-B

GENERAL NOTES:
Construction Specifications: Latest Approved La. Dept. of Highways. Standard Specifications.
Design Specifications: A.A.S.H.O. 1961 as amended by Int. Spec. 1964
Live Load HS 20-44 or Military Loading, Whichever is Greater.
All Concrete to be Class "A."
All Exposed Corners to have 3/4" Chamfer, Unless Otherwise noted.
Reinforcement Shall Be Billet-Steel A.S.T.M. A615 or Rail-Steel A.S.T.M. A616 or Axle-Steel A.S.T.M. A617.
Dimensions relating to Reinforcing Steel are to Bar Centers.
A 1'-6" Square of Plastic Filter Cloth (See Qualified Products List) shall be placed in contact with Concrete behind each Weep Hole, in addition to approx. 2 Cu. Ft. of Concrete Sand.
For Detail of Joints, See Std. Plan C.M.-49.

DIMENSIONS

Clear Span (FT.)	Clear Height (FT.)	Area (SQ.FT.)	Max. Fill Slab (FT.)	Max. Fill Wall (FT.)	Barrel T (IN.)	Barrel Y (IN.)	E (FT.-IN.)	J (FT.-IN.)	G (FT.-IN.)	H (FT.-IN.)	L (FT.-IN.)	L1 (FT.-IN.)	P (FT.-IN.)	P1 (FT.-IN.)	M (FT.-IN.)
4	3	12	28	23	7½	1 3/16	1-0	0-8	2-4	4-7½	8-3 3/16	8-4 3/16	7-9	7-10	20-9 1/8
	4	16	28	13	7½	1 13/16	1-3	0-10	2-9	5-7½	10-3 3/16	10-4 3/16	9-9	9-10	24-9 1/8
5	3	15	22	23	8	1 7/8	1-0	0-8	2-4	4-8	8-4 3/16	8-4 3/16	7-10	7-10	21-10 9/16
	4	20	22	12	8	1 7/8	1-3	0-10	2-9	5-8	10-4 3/16	10-4 3/16	9-10	9-10	25-10 9/16
	5	25	21	7	8	1 7/8	1-5	1-2	3-3	6-8	12-4 3/16	13-1 3/16	11-10	12-7	30-7 9/16
6	3	18	17	22	8½	1 7/8	1-0	0-8	2-4	4-8½	8-4 3/16	8-4 3/16	7-10	7-10	22-10 15/16
	4	24	17	12	8½	1 7/8	1-3	0-10	2-9	5-8½	10-4 3/16	11-1 3/16	9-10	10-7	27-7 15/16
	5	30	17	7	8½	1 7/8	1-5	1-2	3-3	6-8½	12-4 3/16	13-1 3/16	11-10	12-7	31-7 15/16
	6	36	17	5	8½	1 7/8	1-7	1-7	3-10	7-8½	14-4 3/16	15-1 3/16	13-10	14-7	35-7 15/16
7	3	21	15	21	9	1 7/8	1-0	0-8	2-4	4-9	8-4 3/16	9-1 3/16	7-10	8-7	24-8 3/8
	4	28	15	12	9	1 7/8	1-3	0-10	2-9	5-9	10-4 3/16	11-1 3/16	9-10	10-7	28-8 3/8
	5	35	14	6	9	1 7/8	1-5	1-2	3-3	6-9	12-4 3/16	13-1 3/16	11-10	12-7	32-8 3/8
	6	42	14	5	9	1 7/8	1-7	1-7	3-10	7-9	14-4 3/16	15-1 3/16	13-10	14-7	36-8 3/8

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

BARREL REINFORCEMENT

Span	Height	Bars A Size	Bars A No.	Bars A Lgth. (FT-IN)	Bars A Spac. (IN)	Bars A1 Size	Bars A1 No.	Short Bar (FT-IN)	Var. (IN.)	Long Bar (FT-IN)	Spac. (IN.)	#4 Bars B No.	#4 Bars B Lgth. (FT-IN)	#4 Bars B Spac. (IN)	#4 Bars C No.	#4 Bars C Lgth.® (FT-IN.)
4	3	#5	238	5-6	4½	#5	8	2-11	17.0000	4-4	4½	92	3-11	12	16	47-2
4	4	#5	238	5-6	4½	#5	8	2-11	17.0000	4-4	4½	92	4-11	12	18	47-2
5	3	#6	196	6-6	5½	#6	8	2-11	21.0000	4-8	5½	92	4-0	12	18	47-2
5	4	#6	196	6-6	5½	#6	8	2-11	21.0000	4-8	5½	92	5-0	12	20	47-2
5	5	#6	196	6-6	5½	#6	8	2-11	21.0000	4-8	5½	92	6-0	12	22	47-2
6	3	#6	192	7-6	5½	#6	12	2-11	20.5000	6-4	5½	92	4-1	12	20	47-2
6	4	#6	192	7-6	5½	#6	12	2-11	20.5000	6-4	5½	92	5-1	12	22	47-2
6	5	#6	192	7-6	5½	#6	12	2-11	20.5000	6-4	5½	92	6-1	12	24	47-2
6	6	#6	192	7-6	5½	#6	12	2-11	20.5000	6-4	5½	112	7-1	10	26	47-2
7	3	#6	210	8-6	5	#6	16	2-11	18.6667	7-7	5	92	4-2	12	22	47-2
7	4	#6	210	8-6	5	#6	16	2-11	18.6667	7-7	5	92	5-2	12	24	47-2
7	5	#6	210	8-6	5	#6	16	2-11	18.6667	7-7	5	92	6-2	12	26	47-2
7	6	#6	210	8-6	5	#6	16	2-11	18.6667	7-7	5	112	7-2	10	28	47-2

WING AND CURB REINFORCEMENT

Span	Height	#4 Bars E No.	E Lgth. (FT-IN)	E Spac. (IN.)	#4 Bars F No.	F Lgth. (FT-IN.)	#4 Bars F1 No.	F1 Lgth. (FT-IN)	#4 Bars F2 No.	F2 Lgth. (FT-IN.)	#4 Bars F3 No.	F3 Lgth. (FT-IN)	#4 Bars J No.	J Lgth. (FT-IN.)	#4 Bars J1 No.	J1 Lgth. (FT-IN.)	#4 Bars N No.	N Lgth. (FT-IN.)	#4 Bars O No.	O Lgth. (FT-IN.)
4	3	32	6-2½	12	2	9-0	6	3-0	2	9-4	6	3-3	8	5-7	8	5-8	10	4-4	32	1-11
4	4	40	7-5½	12	2	11-0	8	3-0	2	11-4	8	3-3	10	7-7	10	7-8	10	4-4	40	2-4
5	3	32	6-3	12	2	9-1	6	3-0	2	9-4	6	3-3	8	5-8	8	5-8	12	4-5	32	1-11
5	4	40	7-6	12	2	11-1	8	3-0	2	11-4	8	3-3	10	7-8	10	7-8	12	4-5	40	2-4
5	5	50	8-8	12	2	13-1	10	3-0	2	14-1	10	3-3	12	9-8	12	10-5	12	4-5	50	2-10
6	3	32	6-3½	12	2	9-1	6	3-0	2	9-4	6	3-3	8	5-8	8	5-8	16	4-6	32	1-11
6	4	42	7-6½	12	2	11-1	8	3-0	2	12-1	8	3-3	10	7-8	10	8-5	16	4-6	42	2-4
6	5	50	8-8½	12	2	13-1	10	3-0	2	14-1	10	3-3	12	9-8	12	10-5	16	4-6	50	2-10
6	6	58	9-10½	12	2	15-1	12	3-0	2	16-1	12	3-3	14	11-8	14	12-5	16	4-6	58	3-5
7	3	34	6-4	12	2	9-1	6	3-0	2	10-1	6	3-3	8	5-8	8	6-5	18	4-7	32	1-11
7	4	42	7-7	12	2	11-1	8	3-0	2	12-1	8	3-3	10	7-8	10	8-5	18	4-7	42	2-4
7	5	50	8-9	12	2	13-1	10	3-0	2	14-1	10	3-3	12	9-8	12	10-5	18	4-7	50	2-10
7	6	58	9-11	12	2	15-1	12	3-0	2	16-1	12	3-3	14	11-8	14	12-5	18	4-7	58	3-5

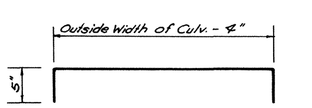
Span	Height	#4 Bars P No.	P Lgth. (FT-IN.)	#4 Bars P1 No.	P1 Lgth. (FT-IN.)	#4 Bars P2 No.	P2 Lgth. (FT-IN)	#4 Bars P3 No.	P3 Lgth. (FT-IN.)	#5 Bars M No.	M Lgth. (FT-IN.)	#5 Bars M1 No.	M1 Lgth. (FT-IN)	#6 Bars X (A) No.	X Lgth. (FT-IN.)
4	3	6	7-5	4	9-0	6	7-6	4	9-5	4	8-3	6	4-10	16	2-0
4	4	6	9-5	4	11-0	6	9-6	4	11-6	4	8-3	6	4-10	20	2-0
5	3	6	7-6	4	9-1	6	7-6	4	9-5	4	9-4	6	5-10	16	2-0
5	4	6	9-6	4	11-1	6	9-6	4	11-6	4	9-4	6	5-10	20	2-0
5	5	6	11-6	4	13-1	6	12-3	4	14-4	4	9-4	6	5-10	24	2-0
6	3	6	7-6	4	9-1	6	7-6	4	9-5	4	10-4	6	6-10	16	2-0
6	4	6	9-6	4	11-1	6	10-3	4	12-3	4	10-4	6	6-10	20	2-0
6	5	6	11-6	4	13-1	6	12-3	4	14-4	4	10-4	6	6-10	24	2-0
6	6	8	13-6	6	15-1	8	14-3	6	16-5	4	10-4	6	6-10	28	2-0
7	3	6	7-6	4	9-1	6	8-3	4	10-2	4	11-5	6	7-11	16	2-0
7	4	6	9-6	4	11-1	6	10-3	4	12-3	4	11-5	6	7-11	20	2-0
7	5	6	11-6	4	13-1	6	12-3	4	14-4	4	11-5	6	7-11	24	2-0
7	6	8	13-6	6	15-1	8	14-3	6	16-5	4	11-5	6	7-11	28	2-0

QUANTITIES

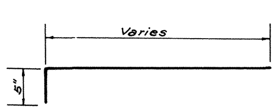
Opening Clear Span (FT.-IN.)	Opening Clear Height (FT.-IN.)	Per Linear Ft of Barrel Steel (LBS.)	Per Linear Ft of Barrel Conc. (CU. YDS.)	44'-0" Culvert Steel (LBS.)	44'-0" Culvert Conc. (CU. YDS.)
4	3	46.52	0.3467	2674	23.45
	4	49.19	0.3837	2981	28.28
5	3	59.97	0.4138	3325	26.75
	4	62.64	0.4509	3633	31.59
	5	65.31	0.4879	3996	37.55
6	3	67.97	0.4877	3705	30.32
	4	70.64	0.5247	4037	35.54
	5	73.32	0.5617	4376	41.13
	6	77.88	0.5988	4920	47.47
7	3	81.54	0.5646	4374	34.36
	4	84.22	0.6019	4685	39.27
	5	86.89	0.6389	5024	44.87
	6	91.46	0.6759	5570	51.22

® Includes One 1'-6" Lap Splice.

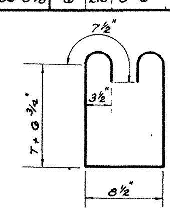
(A) — #6 Bars X to be 3/4" ø Smooth and Greased for 1'-0" of Length.



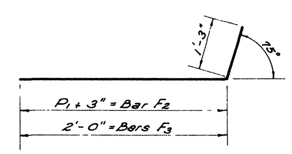
BARS A
(3¾" Diam. Pin - #5 Bars)
(4½" Diam. Pin - #6 Bars)



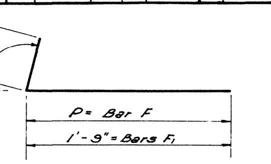
BAR A1
(3¾" Diam. Pin #5 Bars)
(4½" Diam. Pin #6 Bars)



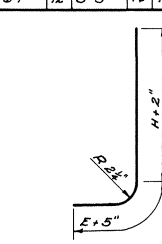
#4 BARS N
(3" Diam. Pin)



#4 BARS F2 & F3
(3" Diam. Pin)



#4 BARS F & F1
(3" Diam. Pin)



#4 BARS E

APPROVED BY:

Original Signed by Chief Engineer

CHIEF ENGINEER DATE

DATE	DESCRIPTION	BY
1-11-78	Rev. Weep Hole Note	W.T.J.
6-10-75	Rev. Slope Intercept	W.T.J.
6-8-72	Rev. General Notes for Steel	W.E.M.
4-27-69	Added Axle Steel	W.E.M.
12-14-66	Rev. 4' & 5' Spans to Military Loading & Deleted 3' Span	W.E.M.

REVISIONS

STANDARD PLAN
REINFORCED CONCRETE BOX CULVERT
STRAIGHT WINGS 75° CROSSING
2:1 SPILL SLOPE NORMAL TO CHANNEL
4' THRU 7' SPANS 3' THRU 6' HEIGHTS

DATED Sept. 25, 1964

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED W.E.M.	DETAILED E.J. Mertel	TRACED Y. Mitchell
CHECKED N.K.B.	CHECKED W.E. Marcum	CHECKED W.E. Marcum
IN CHARGE OF		

C·C·S·S·4-7·RS·75°-1