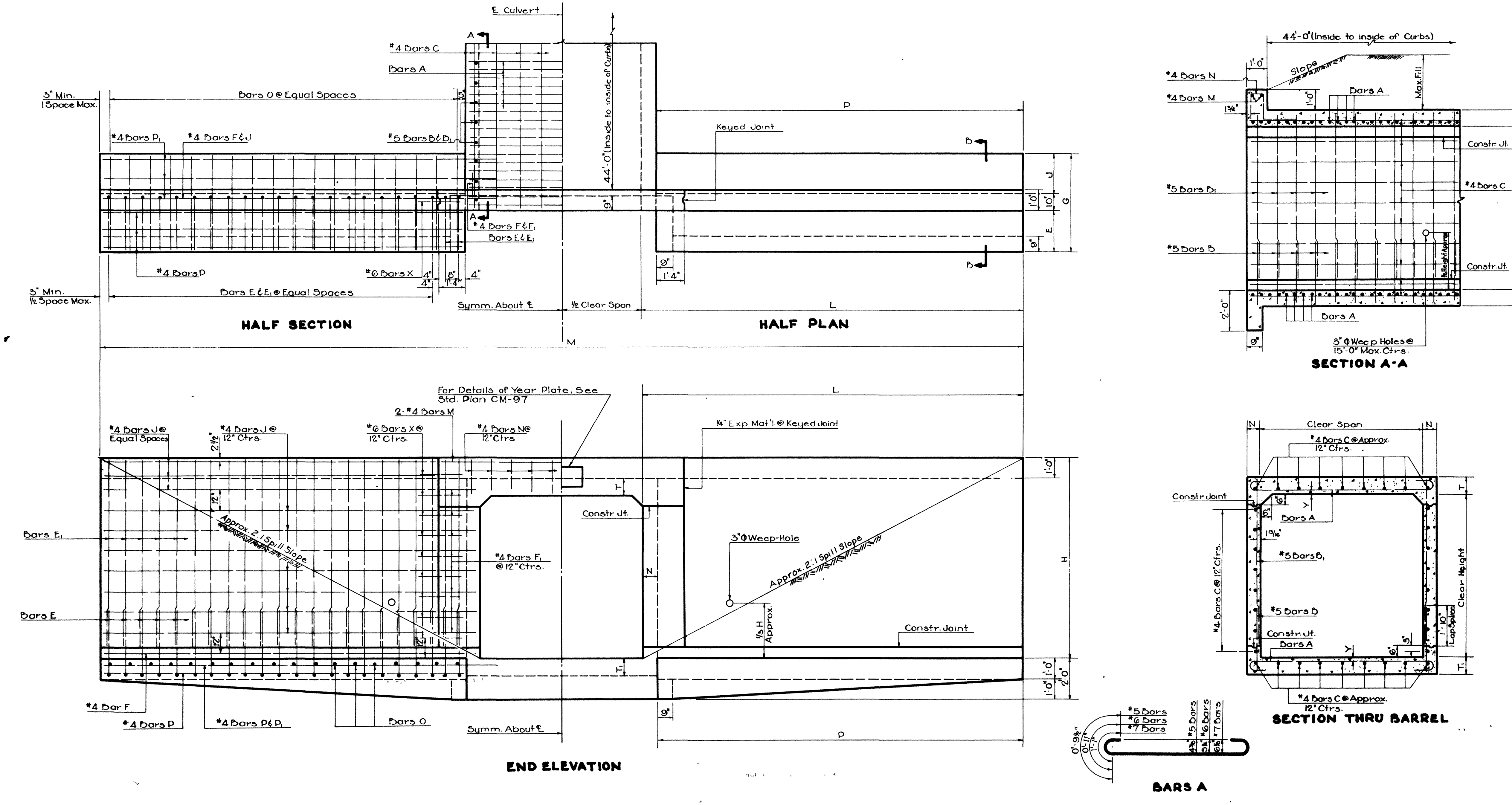

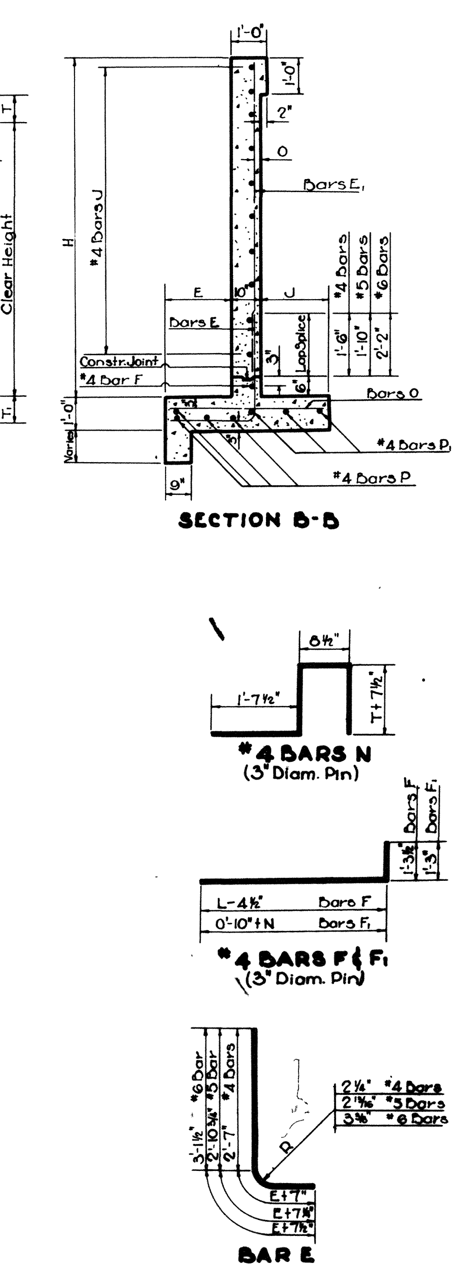

Clear Span (FT.)	Clear Height (FT.)	Area (SQ.FT.)	Max. Fill Slab (FT.)	Max. Fill Wall (FT.)	Barrel N (IN.)	Barrel T (IN.)	Barrel T1 (IN.)	Barrel O (IN.)	Barrel Y (IN.)	Wings & Curbs E (FT.-IN.)	J (FT.-IN.)	G (FT.-IN.)	H (FT.-IN.)	L (FT.-IN.)	P (FT.-IN.)	M (FT.-IN.)
7	7	49	13	6	7	9	9	1 3/4	1 7/8	1-11	1-8	4-5	8-9	16-8	16-1	40-4
8	7	56	13	6	7	10	10	1 3/4	1 7/8	1-11	1-8	4-5	8-10	16-8	16-1	41-4
	8	64	12	5	8	10	10	1 13/16	1 7/8	2-0	2-0	4-10	9-10	18-7	17-11	45-2
9	7	63	11	8	8	10½	10½	1 3/4	1 15/16	1-11	1-8	4-5	8-10½	16-9	16-1	42-6
	8	72	11	5	8	10½	10½	1 13/16	1 15/16	2-0	2-0	4-10	9-10½	19-1	18-5	47-2
	9	81	10	5	9	10½	10½	1 13/16	1 15/16	2-2	2-4	5-4	10-10½	20-9	20-0	50-6
10	7	70	6	6	8	11	11	1 3/4	1 15/16	1-11	1-8	4-5	8-11	16-10	16-2	43-8
	8	80	6	6	9	11	11	1 13/16	1 15/16	2-0	2-0	4-10	9-11	19-2	18-5	48-4
	9	90	6	6	9	11	11	1 13/16	1 15/16	2-2	2-4	5-4	10-11	20-9	20-0	51-6
	10	100	6	6	10	11	11	1 7/8	1 15/16	2-4	2-8	5-10	11-11	22-8	21-10	53-4

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

Clear Span	Clear Height	Bars A Size	Bars A No.	Bars A Length FT.-IN.	Bars A Spac. IN.	#5 Bars B & B1 No.	Length B FT.-IN.	Length B1 FT.-IN.	Spac. IN.	#4 Bars C No.	#4 Bars C Length[①] FT.-IN.
7	7	#6	220	9-2½	5	92	2-11	7-1	12	30	47-2
8	7	#6	220	10-2½	5	92	3-0	7-2	12	32	47-2
	8	#6	220	10-4½	5	96	3-0	8-2	11½	34	47-2
9	7	#7	184	11-7½	6	92	3-0	7-2	12	34	47-2
	8	#7	184	11-7½	6	96	3-0	8-2	11½	36	47-2
	9	#7	184	11-9½	6	106	3-0	9-2	10½	38	47-2
10	7	#7	184	12-7½	6	92	3-1	7-3	12	36	47-2
	8	#7	184	12-9½	6	92	3-1	8-3	12	38	47-2
	9	#7	184	12-9½	6	118	3-1	9-3	9½	40	47-2
	10	#7	184	12-11½	6	130	3-1	10-3	8½	42	47-2

① Includes 1-1'-6" Lap Splice

WINGS AND CURBS REINFORCEMENT

Clear Span	Clear Height	Bars E & E1 Size E	Size E1	No.	Length E FT.-IN.	Length E1 FT.-IN.	Spac. IN.	#4 Bars F No.	#4 Bars F Length FT.-IN.	#4 Bars F1 No.	#4 Bars F1 Length FT.-IN.	#4 Bars J No.	#4 Bars J Length FT.-IN.	#4 Bars M No.	#4 Bars M Length FT.-IN.	#4 Bars N No.	#4 Bars N Length FT.-IN.
7	7	#4	#4	80	5-1	8-1	10	4	17-7	28	2-8	36	14-5	4	10-3	16	5-1
8	7	#4	#4	80	5-1	8-2	10	4	17-7	28	2-8	36	14-5	4	11-3	20	5-3
	8	#5	#4	88	5-6	9-2	10	4	19-6	32	2-9	40	16-3	4	11-5	20	5-3
9	7	#4	#4	80	5-1	8-2	10	4	17-8	28	2-9	36	14-5	4	12-5	22	5-4
	8	#5	#4	84	5-6	9-2	11	4	20-0	32	2-9	40	16-9	4	12-5	22	5-4
	9	#5	#4	120	5-8	10-2	8	4	21-8	36	2-10	44	18-4	4	12-7	22	5-4
10	7	#4	#4	80	5-1	8-3	10	4	17-9	28	2-9	36	14-6	4	13-5	24	5-5
	8	#5	#4	84	5-6	9-3	11	4	20-1	32	2-10	40	16-9	4	13-7	24	5-5
	9	#5	#4	120	5-8	10-3	8	4	21-8	36	2-10	44	18-4	4	13-7	24	5-5
	10	#6	#5	124	6-1	11-3	8½	4	23-7	40	2-11	48	20-2	4	13-9	24	5-5

Clear Span	Clear Height	Bars O No.	Bars O Size	Bars O Length FT.-IN.	Bars O Spac. IN.	#4 Bars P No.	#4 Bars P Length FT.-IN.	#4 Bars P1 No.	#4 Bars P1 Length FT.-IN.	#6 Bars X (A) No.	#6 Bars X Length FT.-IN.
7	7	64	#4	4-0	12	16	15-9	12	17-5	32	2-0
8	7	64	#4	4-0	12	16	15-9	12	17-5	32	2-0
	8	72	#4	4-5	12	16	17-7	12	19-3	36	2-0
9	7	64	#4	4-0	12	16	15-9	12	17-5	32	2-0
	8	72	#4	4-5	12	16	18-1	12	19-9	36	2-0
	9	96	#4	4-11	10	16	19-8	12	21-4	40	2-0
10	7	64	#4	4-0	12	16	15-10	12	17-6	32	2-0
	8	72	#4	4-5	12	16	18-1	12	19-9	36	2-0
	9	96	#4	4-11	10	16	19-8	12	21-4	40	2-0
	10	100	#5	5-5	10½	16	21-6	12	23-2	44	2-0

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

QUANTITIES

Opening Clear Span FT.	Opening Clear Height FT.	Per Lin. Ft. of Barrel Steel LBS.	Per Lin. Ft. of Barrel Conc. CU.YDS.	44'-0" Culvert Steel LBS.	44'-0" Culvert Conc. CU.YDS.
7	7	107.29	0.7654	6752	65.82
8	7	116.18	0.8776	7184	71.25
	8	121.82	0.9805	7970	82.66
9	7	138.97	1.0247	8259	78.24
	8	143.40	1.0741	8964	88.20
	9	150.80	1.1898	10095	100.71
10	7	148.83	1.1245	8733	83.18
	8	153.61	1.2346	9454	95.82
	9	163.80	1.2901	10,725	105.53
	10	173.27	1.4187	12,617	119.86

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.
For Detail of Joints, See Std. Plan C.M. - 49.
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.

APPROVED BY:

Original Signed by Chief Engineer

CHIEF ENGINEER DATE

Date	Description	By
1-5-78	Rev. Weep Hole Note	W.T.J.
1-28-75	Rev. Slope Intercept	W.T.J.
6-8-72	Rev. General Notes for Steel	W.E.M.
4-27-67	Added Axle Steel	W.E.M.
12-18-64	Rev. General Notes	W.E.M.
4-9-64	Deformed Dowels X to Smooth	W.E.M.
6-7-63	All 10' Spans Added	[illegible]
[illegible]	7 x 7 Added	[illegible]
8-10-62	All 9' Spans added	[illegible]

REVISIONS

STANDARD PLAN
REINF. CONCRETE BOX CULVERTS
STRAIGHT WINGS 90° CROSSING
2:1 SPILL SLOPE
7' THRU 10' CLEAR SPANS & CLEAR HEIGHTS

DATED May 21 1962

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED J. A. Hunter DETAILED [illegible] TRACED [illegible]
CHECKED [illegible] CHECKED M. [illegible] CHECKED [illegible]
IN CHARGE OF

C·C·S·S·7-10·R·S·90°·1