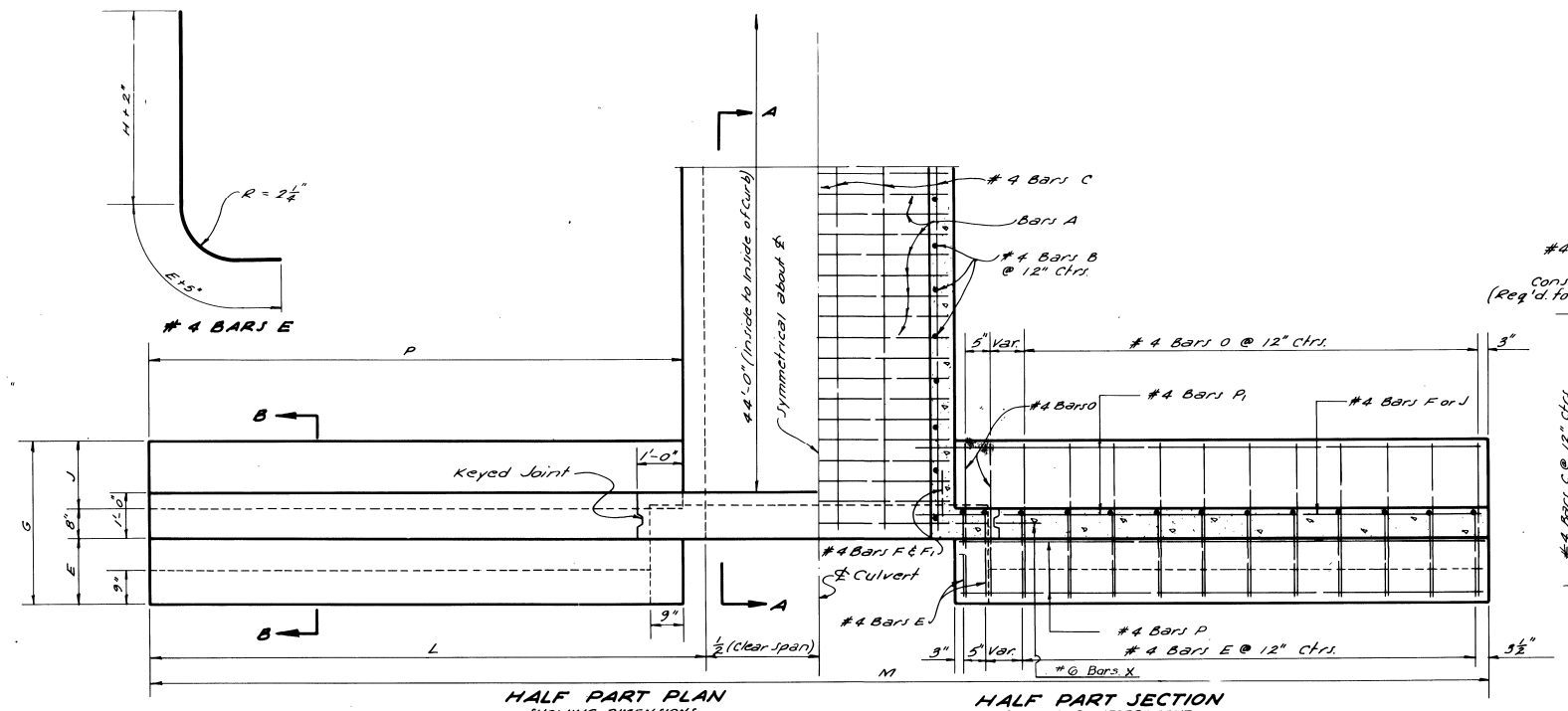
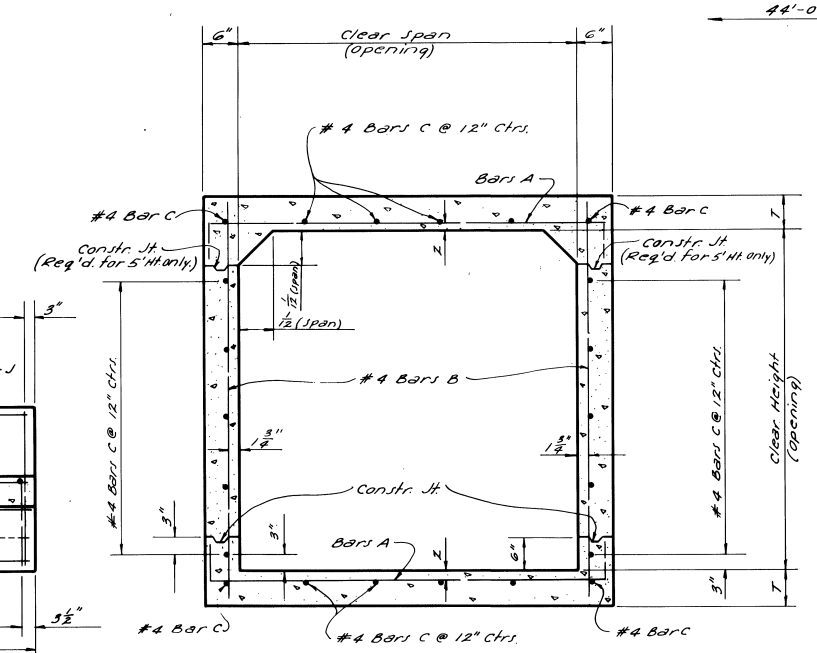
F.A.P.	STATE PROJECT	PARISH	SHEET No.

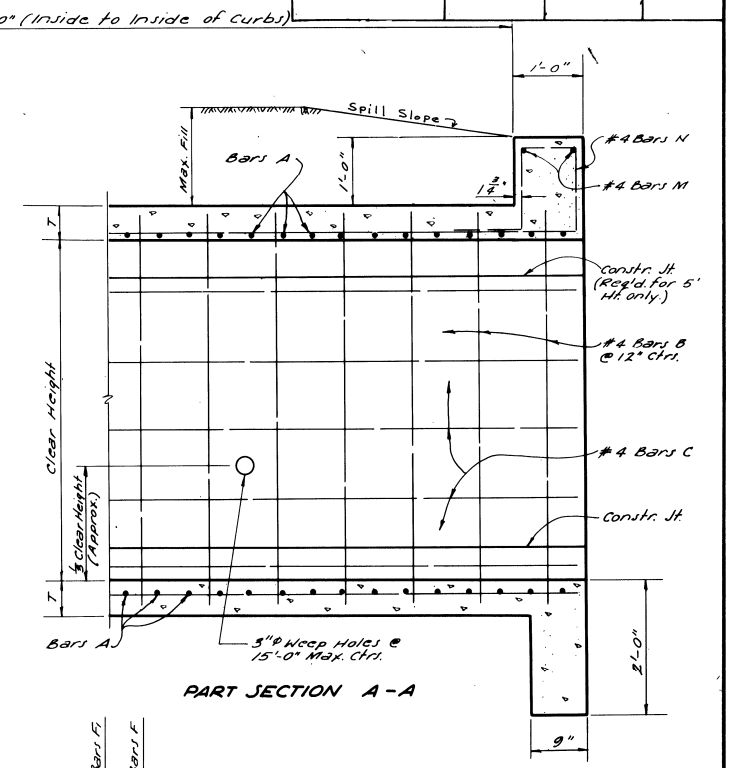


HALF PART PLAN
SHOWING DIMENSIONS

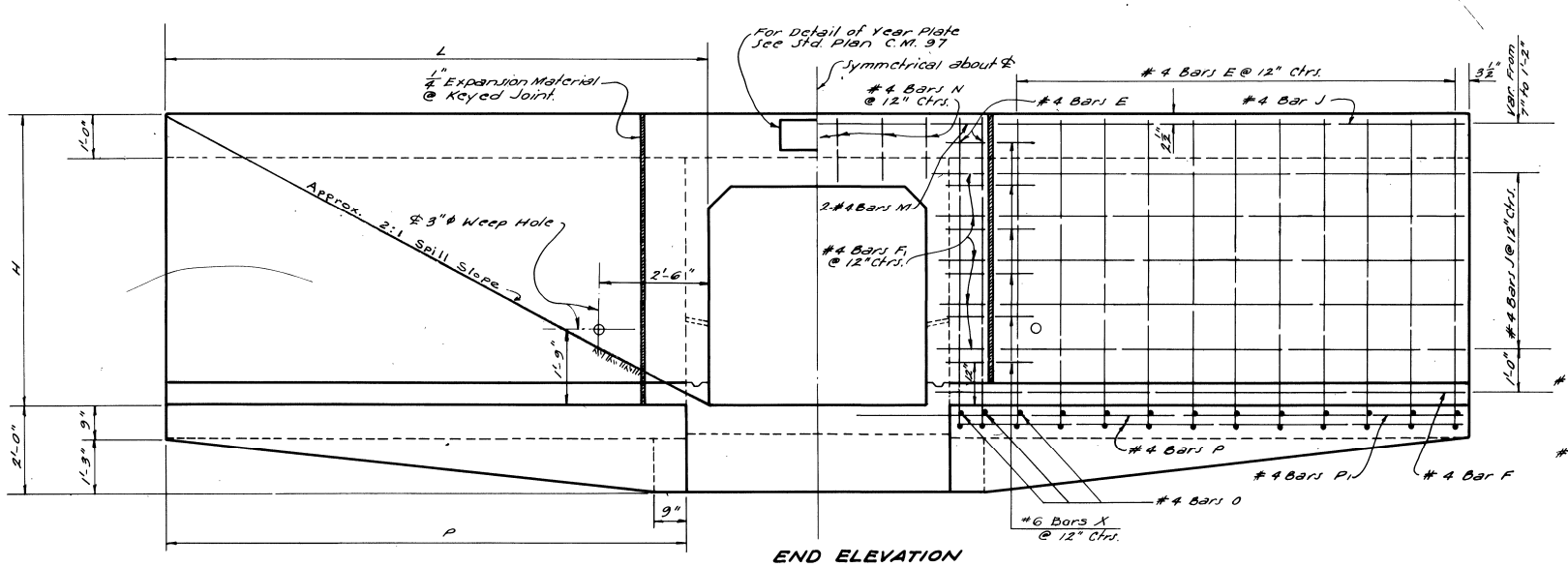
HALF PART SECTION
SHOWING REINFORCEMENT



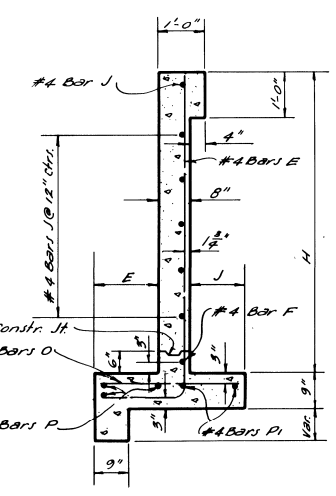
SECTION THRU BARREL



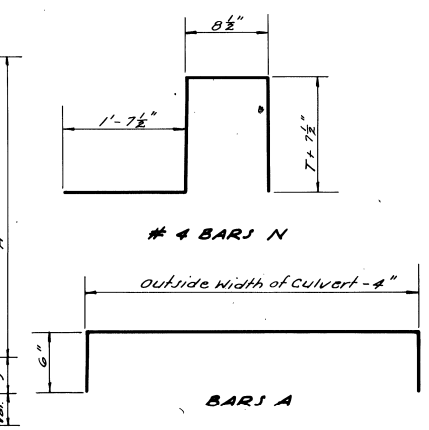
PART SECTION A-A



END ELEVATION

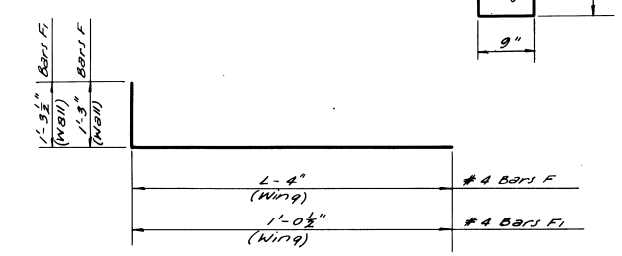


SECTION B-B



4 BARS N

BARS A



4 BARS F & F1

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Latest Approved La. Dept. of Highways Std. Specs.
DESIGN SPECIFICATIONS: A.A.S.H.O. 1957 as amended to Dec. 31, 1958.
LIVE LOAD: H20-S16-44.
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.
Concrete to be class "A".
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 Details of Joints, See Std. Plan C.M.-49.

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

DIMENSIONS: Openings Clear Span	Openings Clear Height	Openings Area	Max. Fill Top Slab	Max. Fill Bott. Slab	Barrel Walls	Barrel T	Barrel Z	Wings & Curbs E	Wings & Curbs J	Wings & Curbs G	Wings & Curbs H	Wings & Curbs L	Wings & Curbs P	Wings & Curbs M
Feet	Ft.-In.	Sq. Ft.	Feet	Feet	Feet	In.	In.	Ft.-In.	Ft.-In.	Ft.-In.	Ft.-In.	Ft.-In.	Ft.-In.	Ft.-In.
2	2-0	4	44	42	54	6	1 13/16	0-9	0-8	2-1	3-6	6-0	5-6	14-0
	2-0	6	28	27	51	6 1/2	1 13/16	0-9	0-8	2-1	3-6 1/2	6-1	5-7	15-2
3	2-6	7.5	28	27	55	6 1/2	1 13/16	0-9	0-8	2-1	4-0 1/2	7-1	6-7	17-2
	3-0	9	28	27	24	6 1/2	1 13/16	1-0	0-8	2-4	4-6 1/2	8-1	7-7	19-2
4	2-0	8	21	20	50	7	1 13/16	0-9	0-8	2-1	3-7	6-2	5-8	16-4
	2-6	10	21	20	34	7	1 13/16	0-9	0-8	2-1	4-1	7-2	6-8	18-4
	3-0	12	21	20	24	7	1 13/16	1-0	0-8	2-4	4-7	8-2	7-8	20-4
	4-0	16	21	20	13	7	1 13/16	1-3	0-10	2-9	5-7	10-2	9-8	26-4
5	2-0	10	17	15	46	7 1/2	1 13/16	0-9	0-8	2-1	3-7 1/2	6-4	5-10	17-8
	2-6	12.5	17	15	33	7 1/2	1 13/16	0-9	0-8	2-1	4-1 1/2	7-4	6-10	19-8
	3-0	15	17	15	23	7 1/2	1 13/16	1-0	0-8	2-4	4-7 1/2	8-4	7-10	21-8
	4-0	20	17	15	13	7 1/2	1 13/16	1-3	0-10	2-9	5-7 1/2	10-4	9-10	25-8
	5-0	25	17	15	7	7 1/2	1 13/16	1-5	1-2	3-3	6-7 1/2	12-4	11-10	29-8

Openings Clear Span	Barrel Reinforcement: Bars A Size	Bars A No.	Bars A Length Ft.-In.	Bars A Space In.	#4 Bars B No.	#4 Bars B Length Ft.-In.	#4 Bars C No.	#4 Bars C Length * Ft.-In.	#4 Bars E No.	#4 Bars E Length Ft.-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 N No.	#4 Bars N Length Ft.-In.	#4 Bars O No.	#4 Bars O Length Ft.-In.	#4 Bars P No.	#4 Bars P Length Ft.-In.	#4 Bars P1 No.	#4 Bars P1 Length Ft.-In.	#4 Bars N1 No.	#4 Bars N1 Length Ft.-In.	#6 Bars X No.	#6 Bars X Length Ft.-In.
2	#4	220	3-8	5	92	2-8	10	47-2	28	4-10	4	6-11	8	2-4	12	4-2	6	4-7	28	1-8	12	5-2	8	6-10	4	4-5	12	2-0
	#5	170	4-8	6 1/2	92	2-9	12	47-2	28	4-10 1/2	4	7-0	8	2-4	12	4-3	8	4-8	28	1-8	12	5-3	8	6-11	4	4-5	12	2-0
3	#5	170	4-8	6 1/2	92	3-3	14	47-2	32	5-4 1/2	4	8-0	8	2-4	16	5-3	8	4-8	32	1-8	12	6-3	8	7-11	4	5-5	12	2-0
	#5	170	4-8	6 1/2	92	3-9	14	47-2	36	6-1 1/2	4	9-0	12	2-4	16	6-3	8	4-8	36	1-11	12	7-3	8	8-11	4	5-5	16	2-0
4	#5	200	5-8	5 1/2	92	2-10	14	47-2	28	4-11	4	7-1	8	2-4	12	4-4	10	4-9	28	1-8	12	5-4	8	7-0	4	6-5	12	2-0
	#5	200	5-8	5 1/2	92	3-4	16	47-2	32	5-5	4	8-1	8	2-4	16	5-4	10	4-9	32	1-8	12	6-4	8	8-0	4	6-5	12	2-0
	#5	200	5-8	5 1/2	92	3-10	16	47-2	36	6-2	4	9-1	12	2-4	16	6-4	10	4-9	36	1-11	12	7-4	8	9-0	4	6-5	16	2-0
	#5	200	5-8	5 1/2	92	4-10	18	47-2	44	7-5	4	11-1	16	2-4	20	8-4	10	4-9	44	2-4	12	9-4	8	11-0	4	6-5	20	2-0
5	#5	220	6-8	5	92	2-11	18	47-2	28	4-11 1/2	4	7-3	8	2-4	12	4-6	12	4-10	28	1-8	12	5-6	8	7-2	4	7-5	12	2-0
	#5	220	6-8	5	92	3-5	18	47-2	32	5-5 1/2	4	8-3	8	2-4	16	5-6	12	4-10	32	1-8	12	6-6	8	8-2	4	7-5	12	2-0
	#5	220	6-8	5	92	3-11	18	47-2	36	6-2 1/2	4	9-3	12	2-4	16	6-6	12	4-10	36	1-11	12	7-6	8	9-2	4	7-5	16	2-0
	#5	220	6-8	5	92	4-11	20	47-2	44	7-5 1/2	4	11-3	16	2-4	20	8-6	12	4-10	44	2-4	12	9-6	8	11-2	4	7-5	20	2-0
	#5	220	6-8	5	92	5-11	22	47-2	52	8-7 1/2	4	13-3	20	2-4	24	10-6	12	4-10	52	2-10	12	11-6	8	13-2	4	7-5	24	2-0

Openings Clear Span	Openings Clear Height	Quantities per Lin. Ft. of Barrel: Steel Lbs.	Concrete Cu. Yds.	44'-0" Culvert: Steel Lbs.	Concrete Cu. Yds.
2	2-0	22.00	0.1862	1340	15.02
	2-0	29.66	0.2369	1717	15.58
3	2-6	31.67	0.2554	1877	17.46
	3-0	32.39	0.2739	1995	19.68
4	2-0	38.93	0.2942	2152	18.45
	2-6	40.93	0.3128	2312	20.33
	3-0	41.60	0.3313	2431	22.56
	4-0	44.27	0.3683	2741	27.97
5	2-0	47.96	0.3589	2645	21.67
	2-6	49.96	0.3768	2743	23.57
	3-0	50.63	0.3953	2862	25.82
	4-0	53.30	0.4326	3173	30.65
	5-0	55.98	0.4694	3513	36.17

* Length includes 1-1'-6" Lap Splice.

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

APPROVED BY:

Original Signed by Chief Engineer

CHIEF ENGINEER DATE

DATE	DESCRIPTION	BY
1-5-62	Rev. Weep Hole Note.	W.T.J.
5-8-61	Rev. General Notes for Steel	W.E.M.
7-12-60	Rev. #4 Bars P & Quantities	W.E.M.
5-2-61	Added Axle Steel	W.E.M.
6-2-60	Deformed Dowels X to Smooth	W.E.M.
11-13-61	Added #6 Dowels @ Keyed Jt.	W.E.M.
9-23-59	Nº AND LENGTH OF BARS C	M.C.L.

REVISIONS

CC-30-20

STANDARD PLAN
REINFORCED CONC. BOX CULVERT
STRAIGHT WINGWALLS
2:1 SPILL SLOPE NORMAL TO CHANNEL
2' THRU 5' CLEAR SPANS, 2' THRU 5' CLEAR HTS.

DATED May 19, 1955

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED Malamos DETAILED Malamos TRACED Z. C. Lehman
CHECKED F. E. Yarum CHECKED F. E. Yarum CHECKED Malamos

CC-30-20