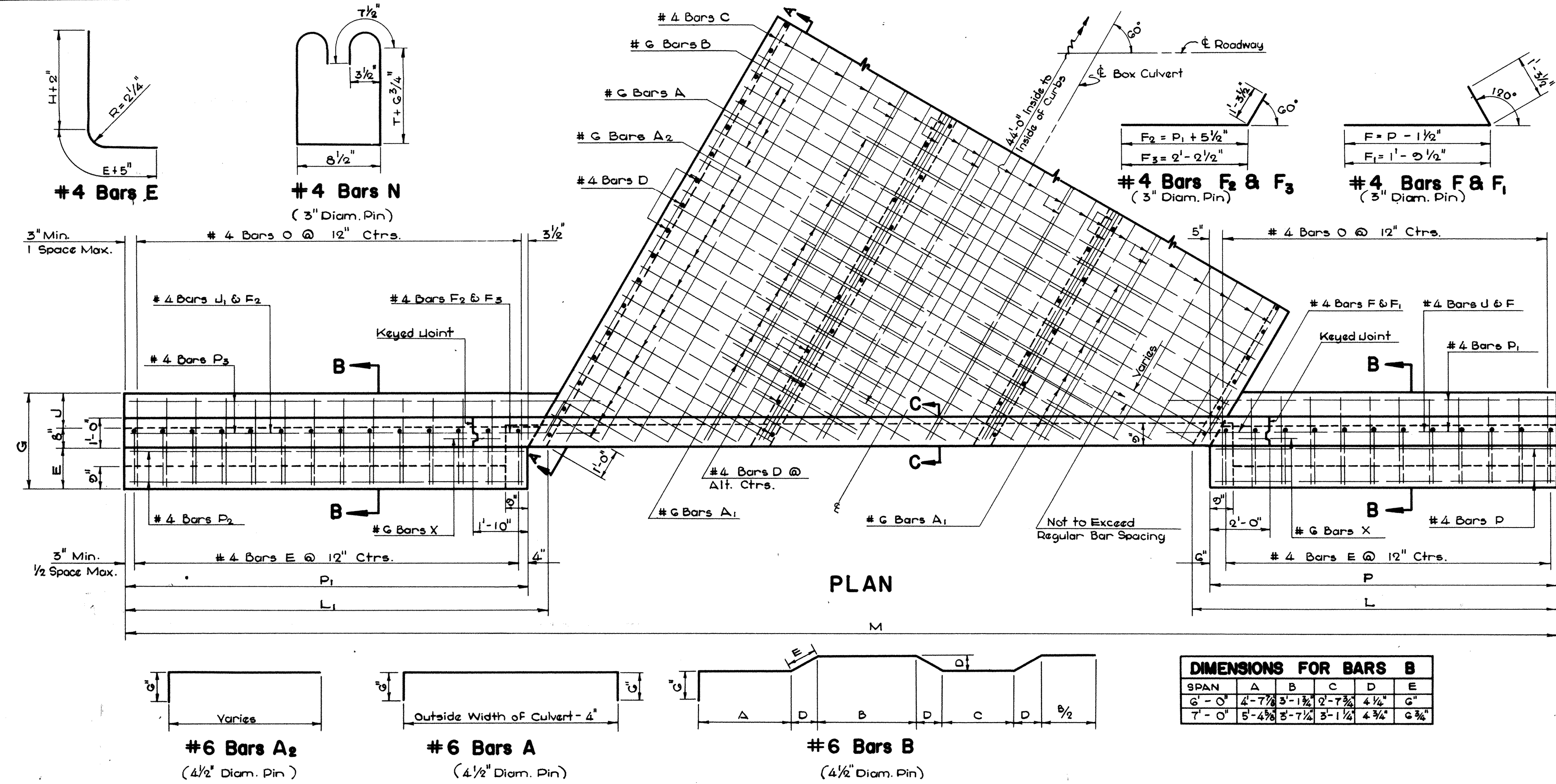
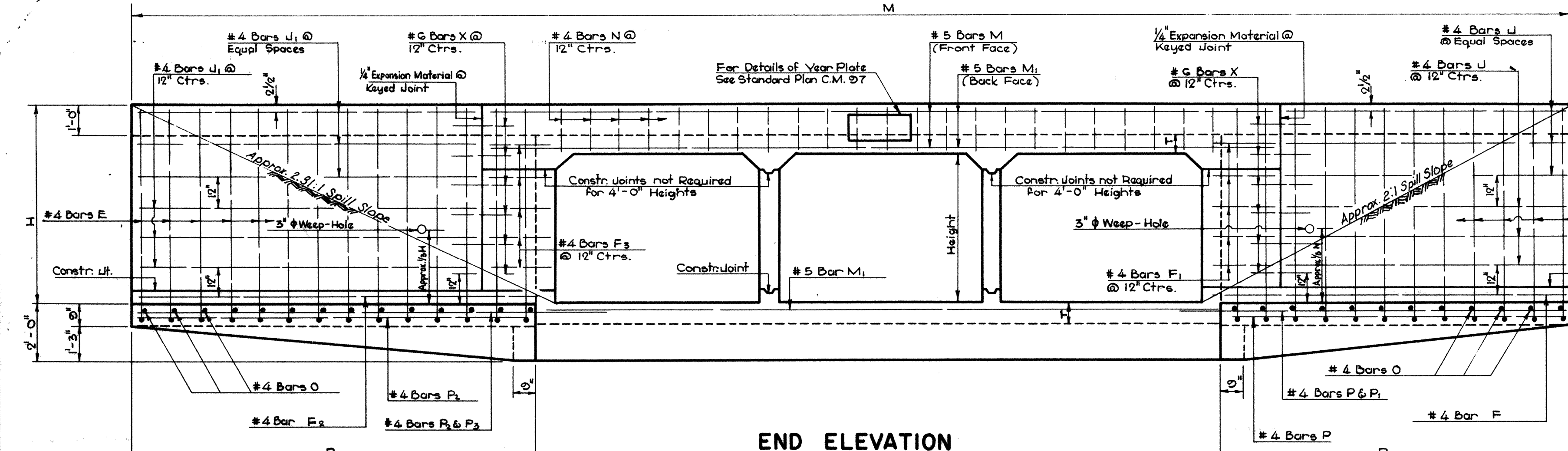
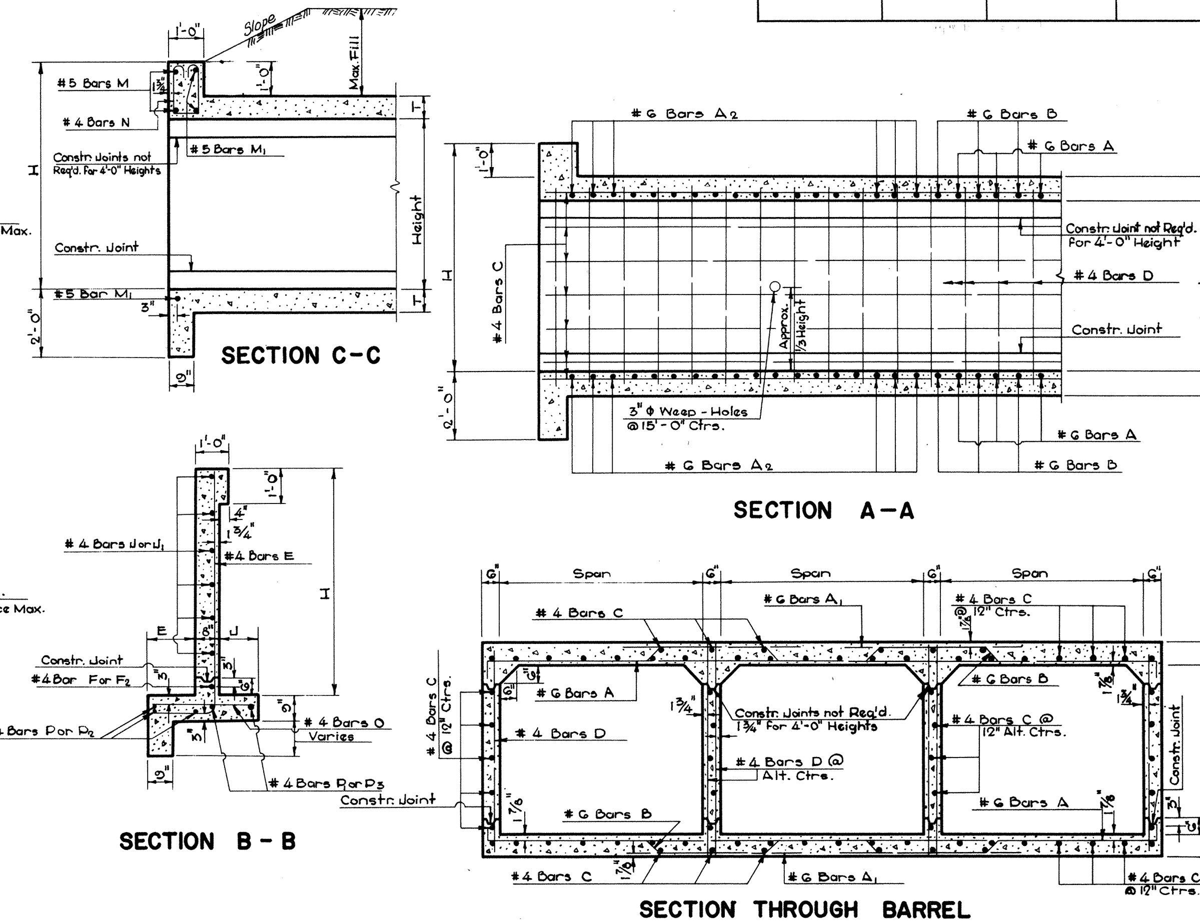
STATE PROJECT	PARISH	SHEET NO.



DIMENSIONS FOR BARS B

SPAN	A	B	C	D	E
6'-0"	4'-7⅞	3'-1⅜	2'-7¾	4¼"	6"
7'-0"	5'-4⅝	3'-7¼	3'-1¼	4¾"	6⅜"





DIMENSIONS / QUANTITIES

OPENINGS SIZE Ft.	OPENINGS Nº	AREA Sq. Ft.	MAX. FILL SLAB Ft.	MAX. FILL WALLS Ft.	BBL. T 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.	Per Linear Foot of Barrel STEEL Pounds	Per Linear Foot of Barrel CONC. Cu. Yds.	44'-0" Culvert STEEL Pounds	44'-0" Culvert CONC. Cu. Yds.	OPENINGS Nº	OPENINGS SIZE Ft.
6x4	2	48	16											36-11 1/16	127.76	0.9074	6898	55.05	2	6x4
	3	72												44-5⅛	193.32	1.3117	10148	74.89	3	
	4	96	20	12	8	1-3	0-10	2-9	5-8	10-3 15/16	12-1 15/16	9-9	11-7	51-11 3/16	258.88	1.7161	13568	94.72	4	
	5	120												59-5¼	324.45	2.1204	16965	114.56	5	
	6	144												66-11 5/16	401.17	2.5247	20946	134.40	6	
6x5	2	60	15											41-0 1/16	131.76	0.9630	7305	61.62	2	6x5
	3	90												48-6⅛	198.66	1.3858	10617	82.31	3	
	4	120	20	7	8	1-5	1-2	3-3	6-8	12-3 15/16	14-2 15/16	11-9	13-8	56-0 3/16	265.56	1.8087	14099	103.01	4	
	5	150												63-6¼	332.46	2.2315	17558	123.70	5	
	6	180												71-0 5/16	410.52	2.6544	21602	144.39	6	
7x4	2	56	12											39-3¾	149.88	1.0540	7966	62.23	2	7x4
	3	84												47-11 11/16	227.54	1.5309	11865	85.57	3	
	4	112	16	12	8½	1-3	0-10	2-9	5-8½	10-4 15/16	12-1 15/16	9-10	11-7	56-7⅝	305.20	2.0077	15887	108.92	4	
	5	140												65-3 9/16	382.86	2.4846	20062	132.26	5	
	6	168												73-11 7/16	472.54	2.9614	24665	155.61	6	

APPROVED BY:

Original Signed by Chief Engineer

CHIEF ENGINEER DATE

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

BARREL REINFORCEMENT

OPENINGS SIZE Ft.	Nº	#6 BARS A Nº	A Length Ft.-In.	A Spc. In.	#6 BARS A1 Nº	A1 Length Ft.-In.	A1 Spc. In.	#6 BARS A2 Nº	A2 Short Bar Ft.-In.	A2 Var. In.	A2 Long Bar Ft.-In.	A2 Spc. In.	#6 BARS B Nº	B Length Ft.-In.	B Spc. In.	#4 BARS C Nº	C Length (1) Ft.-In.	#4 BARS D Nº	D Length Ft.-In.	D Spc. In.
6x4	2	66	14-2	14	82	5-2	7/14	48	2-3	12.0909	13-4	7	66	14-5½	14	46	47-5	138	5-0	12
	3	60	20-8	14	176	5-2	7/14	72	2-3	12.1176	19-5	7	60	21-3	14	68	47-5	184	5-0	12
	4	52	27-2	14	284	5-2	7/14	100	2-3	12.1250	26-6	7	54	28-0½	14	90	47-5	230	5-0	12
	5	46	33-8	14	400	5-2	7/14	124	2-3	12.1000	32-6	7	48	34-10	14	112	47-5	276	5-0	12
	6	40	(2)42-4	14	544	5-2	7/14	152	2-3	12.1081	39-7	7	40	(2)43-9½	14	134	47-5	322	5-0	12
6x5	2	66	14-2	14	82	5-2	7/14	48	2-3	12.0909	13-4	7	66	14-5½	14	49	47-5	138	6-0	12
	3	60	20-8	14	176	5-2	7/14	72	2-3	12.1176	19-5	7	60	21-3	14	72	47-5	184	6-0	12
	4	52	27-2	14	284	5-2	7/14	100	2-3	12.1250	26-6	7	54	28-0½	14	95	47-5	230	6-0	12
	5	46	33-8	14	400	5-2	7/14	124	2-3	12.1000	32-6	7	48	34-10	14	118	47-5	276	6-0	12
	6	40	(2)42-4	14	544	5-2	7/14	152	2-3	12.1081	39-7	7	40	(2)43-9½	14	141	47-5	322	6-0	12
7x4	2	68	16-2	13	88	5-8	6½/13	60	2-3	11.2143	15-4	6½	70	16-6	13	50	47-5	138	5-1	12
	3	60	23-8	13	192	5-8	6½/13	92	2-3	11.2273	22-10	6½	62	24-4	13	74	47-5	184	5-1	12
	4	52	31-2	13	312	5-8	6½/13	124	2-3	11.2333	30-4	6½	54	32-2	13	98	47-5	230	5-1	12
	5	44	38-8	13	448	5-8	6½/13	156	2-3	11.2368	37-10	6½	46	40-0	13	122	47-5	276	5-1	12
	6	36	(2)48-4	13	600	5-8	6½/13	188	2-3	11.2391	(4)45-4	6½	38	(2)50-0	13	146	47-5	322	5-1	12

WINGS AND CURBS REINFORCEMENT

OPENINGS SIZE Ft.	Nº	#4 BARS E Nº	E Length Ft.-In.	#4 BARS F Nº	F Length	#4 BARS F1 Nº	F1 Length	#4 BARS F2 Nº	F2 Length	#4 BARS F3 Nº	F3 Length	#4 BARS J Nº	J Length	#4 BARS J1 Nº	J1 Length	#4 BARS O Nº	O Length	#4 BARS P Nº	P Length	#4 BARS P1 Nº	P1 Length	#4 BARS P2 Nº	P2 Length	#4 BARS P3 Nº	P3 Length	#5 BARS M Nº	M Length	#5 BARS M1 Nº	M1 Length	#4 BARS N Nº	N Length	#6 BARS X (A) Nº	X Length
6x4	2																									4	18-10	6	15-2	32	4-5	20	2-0
	3																									4	26-4	6	22-8	46	4-5	20	2-0
	4	44	7-6	2	10-11	8	3-1	2	13-4	8	3-6	10	7-5	10	9-5	44	2-4	6	9-5	4	10-10	6	11-3	4	13-8	4	33-10	6	30-2	62	4-5	20	2-0
	5																									4	(3)43-3	6	37-8	76	4-5	20	2-0
	6																									4	(3)50-9	6	(3)47-0	92	4-5	20	2-0
6x5	2																									4	18-10	6	15-2	32	4-5	24	2-0
	3																									4	26-4	6	22-8	46	4-5	24	2-0
	4	52	8-8	2	12-11	10	3-1	2	15-5	10	3-6	12	9-5	12	11-6	52	2-10	6	11-5	4	12-10	6	13-4	4	15-9	4	33-10	6	30-2	62	4-5	24	2-0
	5																									4	(3)43-3	6	37-8	76	4-5	24	2-0
	6																									4	(3)50-9	6	(3)47-0	92	4-5	24	2-0
7x4	2																									4	21-2	6	17-6	36	4-6	20	2-0
	3																									4	29-10	6	26-2	54	4-6	20	2-0
	4	44	7-6½	2	11-0	8	3-1	2	13-4	8	3-6	10	7-6	10	9-5	44	2-4	6	9-6	4	10-11	6	11-3	4	13-8	4	38-6	6	34-10	70	4-6	20	2-0
	5																									4	(3)49-0	6	(3)45-4	88	4-6	20	2-0
	6																									4	(3)57-8	6	(3)54-0	106	4-6	20	2-0

(1) Includes 1'-6" Lap Splice (2) Includes 1'-2'-2" Lap Splice (3) Includes 1'-1'-10" Lap Splice (A) #6 Bars X to be ¾" ϕ Smooth and Greased For 1'-0" of Length

(4) Does not Include Lap Splice. When Bar Length Exceeds 40'-0", Add 1'-2'-2" Lap Splice.

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: HS20-44 or Military, 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.

Place about 2 Cu. Ft. of Large Size Gravel or Loose Rock. 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.

STANDARD PLAN
MULTIPLE OPENINGS
REINFORCED CONCRETE BOX CULVERTS
STRAIGHT WINGS — 60° CROSSING
2:1 SPILL SLOPE NORMAL TO CHANNEL
6'x4', 6'x5' & 7'x4'

DATED DEC. 31, 1962

DATE	DESCRIPTION	BY
1-11-78	Rev. Weep Hole Note	W.T.J.
8-20-75	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.

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED N.K.B. | DETAILED W.E. Grice | TRACED T. WILLIAMS
CHECKED W.E.M. | CHECKED W.E. Marcum | CHECKED [signature]
IN CHARGE OF

C·C·S·M·6-7·R·60°·1

C·C·S·M·6-7·R·60°·1