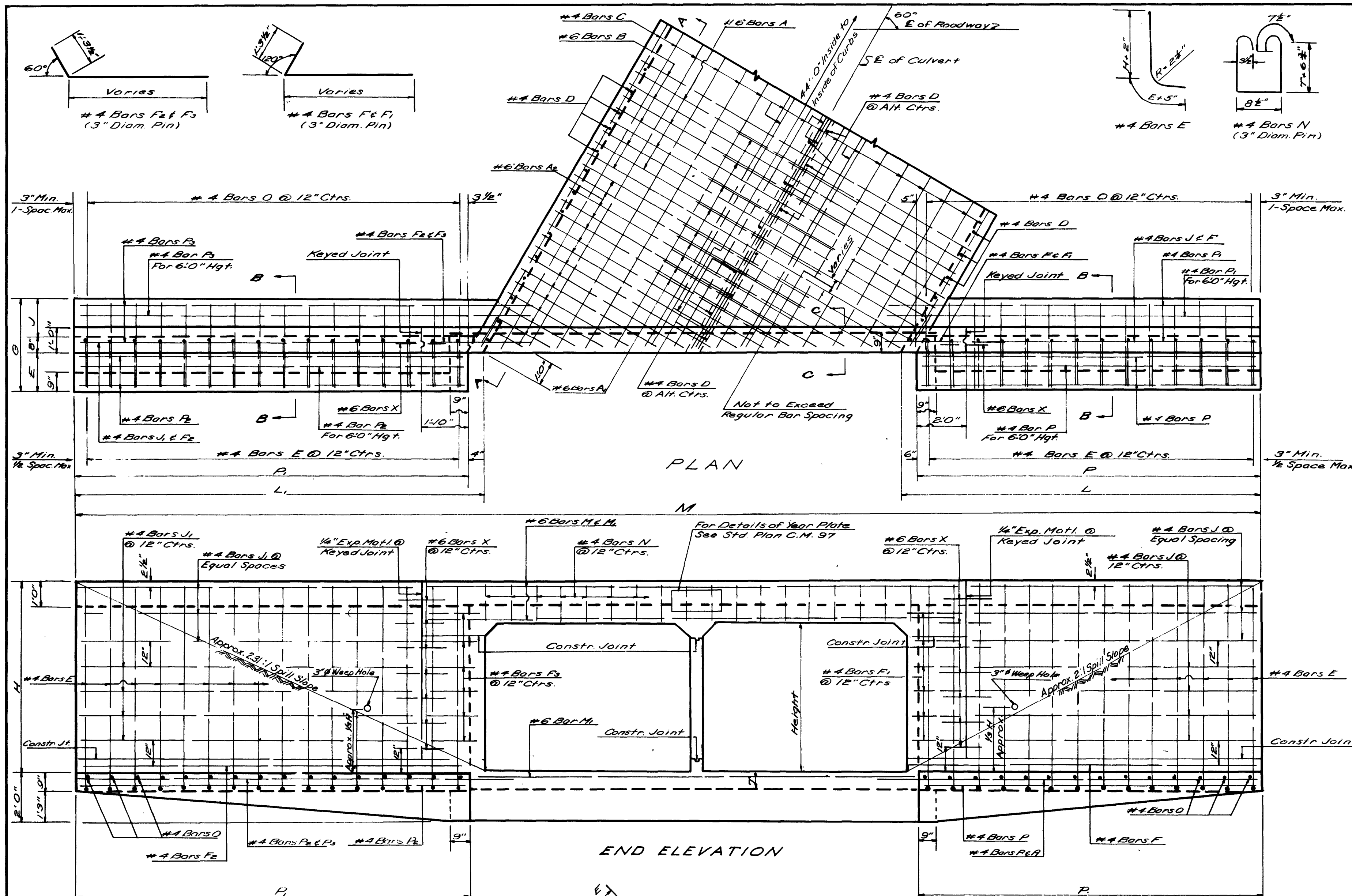
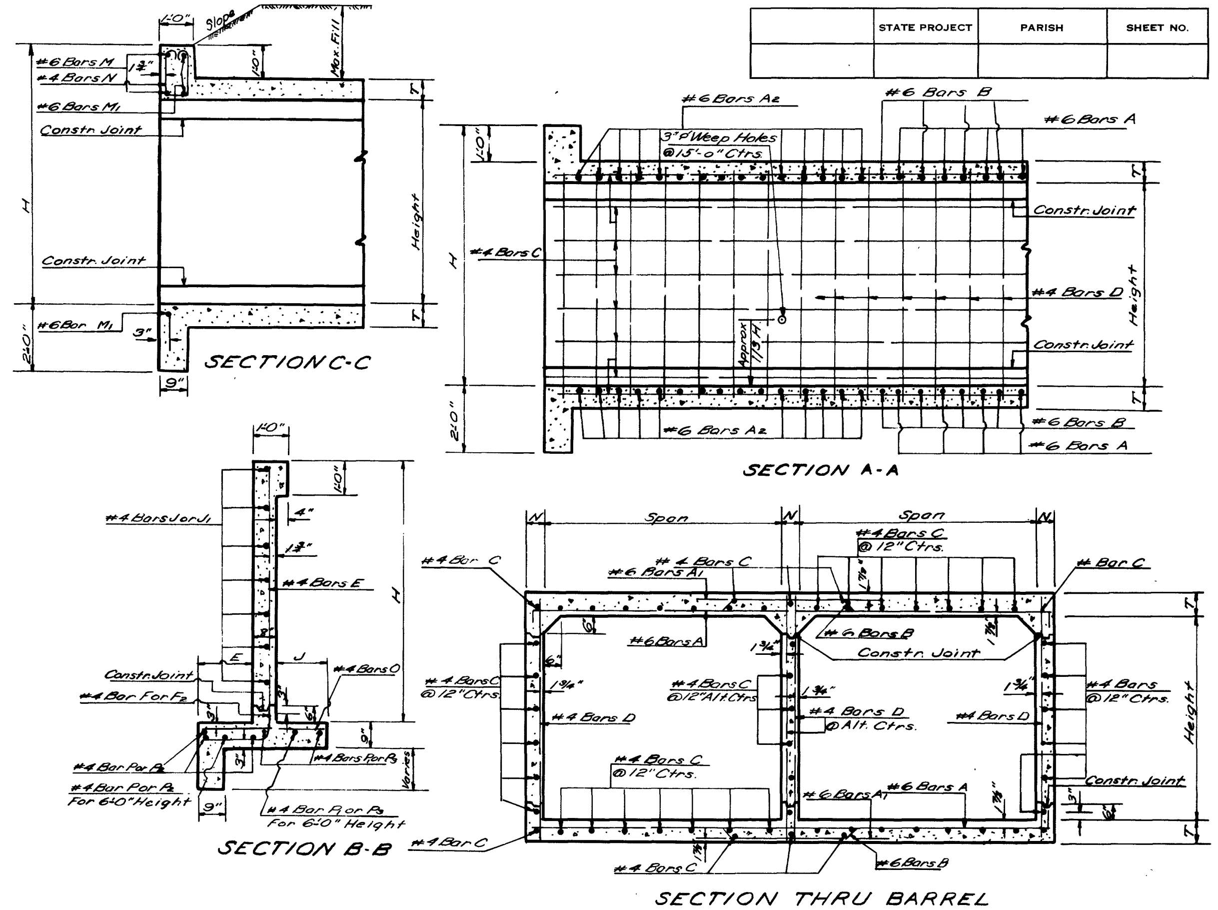
STATE PROJECT	PARISH	SHEET NO.



DIMENSION FOR BARS B						
SPAN	Pin Diam.	A	B	C	D	E
7'-0"	4½"	5'-4⅝"	3'-7⅛"	3'-1⅞"	4¾"	6¾"
8'-0"	4½"	6'-2⅝"	4'-1⅞"	3'-6⅝"	5⅛"	7⅞"



DIMENSIONS / QUANTITIES

OPENINGS SIZE (FEET)	NO.	AREA SQ.FT.	MAX. FILL SLAB FEET	MAX. FILL WALL FEET	BARREL T IN.	BARREL N 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 LIN. FT. OF BARREL STEEL LBS.	PER LIN. FT. OF BARREL CONC. CU. YDS.	44'-0" CULVERT (ALONG ℄) STEEL LBS.	44'-0" CULVERT (ALONG ℄) CONC. CU. YDS.	OPENINGS NO.	OPENINGS SIZE FEET
7x5	2	70	12	7	8½	6	1-5	1-2	3-3	6-8½	12-4 15/16	14-3 15/16	11-10	13-9	43-5¾	153.89	1.1096	8,461	68.86	2	7x5
	3	105	16												52-1 1/16	232.89	1.6049	12,463	93.06	3	
	4	140													60-9⅝	311.88	2.1003	16,587	117.26	4	
	5	175													69-5 9/16	390.88	2.5957	20,878	141.47	5	
	6	210													78-1 7/16	481.89	3.0910	25,583	165.67	6	
7x6	2	84	11	5	8½	6	1-7	1-6	3-9	7-8½	14-4 15/16	16-4 15/16	13-10	15-10	47-6¾	160.74	1.1651	9,122	76.07	2	7x6
	3	126	16												56-2 1/16	242.02	1.6790	13,234	101.14	3	
	4	168													64-10⅝	323.29	2.1929	17,404	126.20	4	
	5	210													73-6 9/16	404.57	2.7068	21,868	151.26	5	
	6	252													82-2 7/16	497.86	3.2207	26,683	176.32	6	
8x5	2	80	10	9	9	7	1-5	1-2	3-3	6-9	12-6 1/16	14-5 1/16	11-10	13-9	46-0 15/16	180.67	1.3287	9,754	79.39	2	8x5
	3	120	14												55-11⅞	273.98	1.9228	14,476	108.33	3	
	4	160													65-10 13/16	367.30	2.5170	19,407	137.26	4	
	5	200													75-9¾	473.63	3.1111	24,857	166.20	5	
	6	240													85-8 11/16	566.94	3.7053	30,200	195.13	6	
8x6	2	96	9	5	9	7	1-7	1-6	3-9	7-9	14-6 1/16	16-6 1/16	13-10	15-10	50-1 15/16	184.68	1.3935	10,273	87.04	2	8x6
	3	144	13												60-0⅞	279.33	2.0092	15,057	116.98	3	
	4	192													69-11 13/16	373.98	2.6250	20,051	146.92	4	
	5	240													79-10¾	481.64	3.2407	25,564	176.85	5	
	6	288													89-9 11/16	576.29	3.8565	30,969	206.79	6	

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

BARREL REINFORCEMENT

OPENINGS SIZE FEET	NO.	#6 BARS A NO.	#6 BARS A LENGTH FT-IN.	#6 BARS A Spc. IN.	#6 BARS A1 NO.	#6 BARS A1 LENGTH FT-IN.	#6 BARS A1 Spc. IN.	#6 BARS A2 NO.	#6 BARS A2 SHORT BAR FT-IN.	#6 BARS A2 Var. IN.	#6 BARS A2 LONG BAR FT-IN.	#6 BARS A2 Spc. IN.	#6 BARS B NO.	#6 BARS B LENGTH FT-IN.	#6 BARS B Spc. IN.	#4 BARS C NO.	#4 BARS C LENGTH ① FT-IN.	#4 BARS D NO.	#4 BARS D LENGTH FT-IN.	#4 BARS D Spc. IN.
7x5	2	68	16-2	13	88	5-8	6½ 13	60	2-3	11.2143	15-4	6½	70	16-6	13	53	47-5	138	6-1	12
	3	60	23-8	13	192	5-8	6½ 13	92	2-3	11.2273	22-10	6½	62	24-4	13	78	47-5	184	6-1	12
	4	52	31-2	13	312	5-8	6½ 13	124	2-3	11.2333	30-4	6½	54	32-2	13	103	47-5	230	6-1	12
	5	44	38-8	13	448	5-8	6½ 13	156	2-3	11.2368	37-10	6½	46	40-0	13	128	47-5	276	6-1	12
	6	36	②48-4	13	600	5-8	6½ 13	188	2-3	11.2391	②45-4	6½	38	②50-0	13	153	47-5	322	6-1	12
7x6	2	68	16-2	13	88	5-8	6½ 13	60	2-3	11.2143	15-4	6½	70	16-6	13	56	47-5	168	7-1	10
	3	60	23-8	13	192	5-8	6½ 13	92	2-3	11.2273	22-10	6½	62	24-4	13	82	47-5	224	7-1	10
	4	52	31-2	13	312	5-8	6½ 13	124	2-3	11.2333	30-4	6½	54	32-2	13	106	47-5	280	7-1	10
	5	44	38-8	13	448	5-8	6½ 13	156	2-3	11.2368	37-10	6½	46	40-0	13	134	47-5	336	7-1	10
	6	36	②48-4	13	600	5-8	6½ 13	188	2-3	11.2391	②45-4	6½	38	②50-0	13	160	47-5	392	7-1	10
8x5	2	70	18-5	12	98	6-2	6 12	76	2-4	10.3889	17-11	6	72	18-9¼	12	57	47-5	138	6-2	12
	3	62	27-0	12	212	6-2	6 12	112	2-4	10.3704	25-8	6	64	27-8¼	12	84	47-5	184	6-2	12
	4	52	35-7	12	348	6-2	6 12	152	2-4	10.3783	34-4	6	54	36-7¼	12	111	47-5	230	6-2	12
	5	42	②46-4	12	504	6-2	6 12	192	2-4	10.3830	②43-0	6	44	②47-9	12	138	47-5	276	6-2	12
	6	32	②54-11	12	680	6-2	6 12	232	2-4	10.3860	②51-8	6	34	②56-8¼	12	165	47-5	322	6-2	12
8x6	2	70	18-5	12	98	6-2	6 12	76	2-4	10.3889	17-11	6	72	18-9¼	12	60	47-5	138	7-2	12
	3	62	27-0	12	212	6-2	6 12	112	2-4	10.3704	25-8	6	64	27-8¼	12	88	47-5	184	7-2	12
	4	52	35-7	12	348	6-2	6 12	152	2-4	10.3783	34-4	6	54	36-7¼	12	116	47-5	230	7-2	12
	5	42	②46-4	12	504	6-2	6 12	192	2-4	10.3830	②43-0	6	44	②47-9	12	144	47-5	276	7-2	12
	6	32	②54-11	12	680	6-2	6 12	232	2-4	10.3860	②51-8	6	34	②56-8¼	12	172	47-5	322	7-2	12

WINGS AND CURBS REINFORCEMENT

SIZE	#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 F2 NO.	#4 BARS F2 LENGTH FT-IN.	#4 BARS F3 NO.	#4 BARS F3 LENGTH FT-IN.	#4 BARS J NO.	#4 BARS J LENGTH FT-IN.	#4 BARS J1 NO.	#4 BARS J1 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 P2 NO.	#4 BARS P2 LENGTH FT-IN.	#4 BARS P3 NO.	#4 BARS P3 LENGTH FT-IN.
7x5	52	8-8½	2	13-0	10	3-1	2	15-6	10	3-6	12	9-6	12	11-7	52	2-10	6	11-6	4	12-11	6	13-5	4	16-0
7x6	60	9-10½	2	15-0	12	3-1	2	17-7	12	3-6	14	11-6	14	13-8	60	3-4	8	13-6	6	14-11	8	15-6	6	18-3
8x5	52	8-9	2	13-1	10	3-2	2	15-7	10	3-7	12	9-6	12	11-7	52	2-10	6	11-6	4	12-11	6	13-5	4	16-0
8x6	60	9-11	2	15-1	12	3-2	2	17-8	12	3-7	14	11-6	14	13-8	60	3-4	8	13-6	6	14-11	8	15-6	6	18-3

SIZE	NO.	#4 BARS N NO.	#4 BARS N LENGTH FT-IN.	#6 BARS M NO.	#6 BARS M LENGTH FT-IN.	#6 BARS M1 NO.	#6 BARS M1 LENGTH FT-IN.	#6 BARS X Ⓐ NO.	#6 BARS X Ⓐ LENGTH FT-IN.
7x5	2	36	4-6	4	21-2	6	17-6	24	2-0
	3	54	4-6	4	29-10	6	26-2	24	2-0
	4	70	4-6	4	38-6	6	34-10	24	2-0
	5	88	4-6	4	②49-4	6	②45-8	24	2-0
	6	106	4-6	4	②58-0	6	②54-4	24	2-0
7x6	2	36	4-6	4	21-2	6	17-6	28	2-0
	3	54	4-6	4	29-10	6	26-2	28	2-0
	4	70	4-6	4	38-6	6	34-10	28	2-0
	5	88	4-6	4	②49-4	6	②45-8	28	2-0
	6	106	4-6	4	②58-0	6	②54-4	28	2-0
8x5	2	40	4-7	4	23-9	6	20-2	24	2-0
	3	60	4-7	4	33-8	6	30-0	24	2-0
	4	80	4-7	4	②45-9	6	39-11	24	2-0
	5	100	4-7	4	②55-8	6	②52-0	24	2-0
	6	120	4-7	4	②65-7	6	②61-11	24	2-0
8x6	2	40	4-7	4	23-9	6	20-1	28	2-0
	3	60	4-7	4	33-8	6	30-0	28	2-0
	4	80	4-7	4	②45-9	6	39-11	28	2-0
	5	100	4-7	4	②55-8	6	②52-0	28	2-0
	6	120	4-7	4	②65-7	6	②61-11	28	2-0

① INCLUDES ONE 1'-6" LAP SPLICE. ② INCLUDES ONE 2'-2" LAP SPLICE. ③ DOES NOT INCLUDE LAP SPLICE, WHEN LENGTH OF BAR EXCEEDS 40'-0", ADD 2'-2" LAP SPLICE. Ⓐ #6 BARS "X" TO BE 3/4" ø SMOOTH AND GREASED FOR 1'-0" OF LENGTH.

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: H.S. 20-44 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.
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.

CC·S·M·7-8·R·60°-I

APPROVED BY:
Original Signed by Chief Engineer
CHIEF ENGINEER DATE

STANDARD PLAN
MULTIPLE OPENINGS
REINFORCED CONCRETE BOX CULVERT
STRAIGHT WINGS 60° CROSSING
7'x5' 7'x6' 8'x5' 8'x6'

DATED May 26 1965

DATE	DESCRIPTION	BY
1-5-78	Rev. Weep Hole Note	W.T.J.
2-20-75	Rev. Slope Intercept	W.T.J.
6-8-72	Rev. Gen. Notes For Steel	W.E.M.
5-2-61	Added Axle Steel	W.E.M.

REVISIONS

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED Marcum	DETAILED E. Mortel	TRACED J. Durnin
CHECKED Brown	CHECKED Brown	CHECKED A.P. Boog
IN CHARGE OF		

CC·S·M·7-8·R·60°-I