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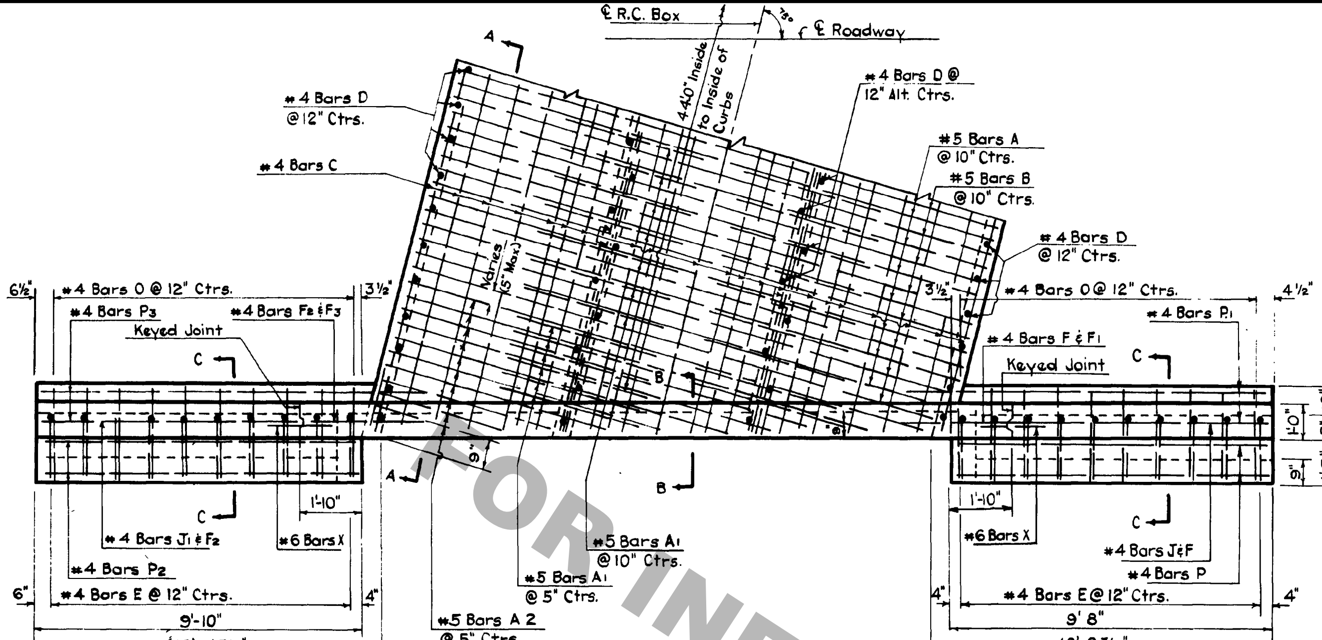
FOR INFORMATIONAL PURPOSES ONLY

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



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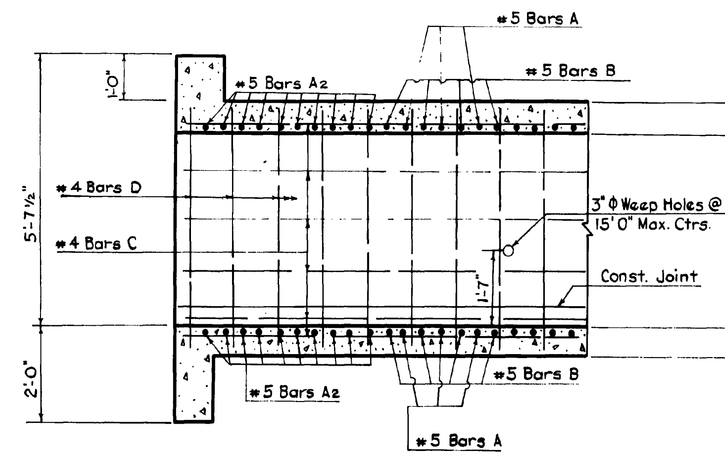
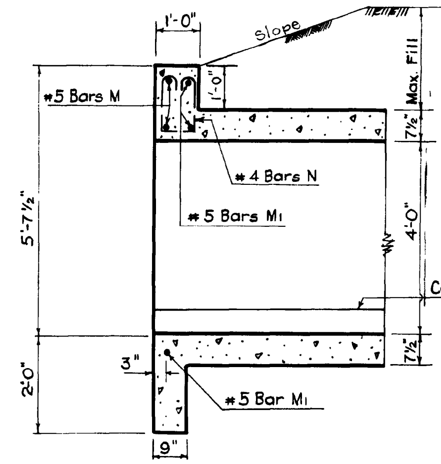


SECTION A-A



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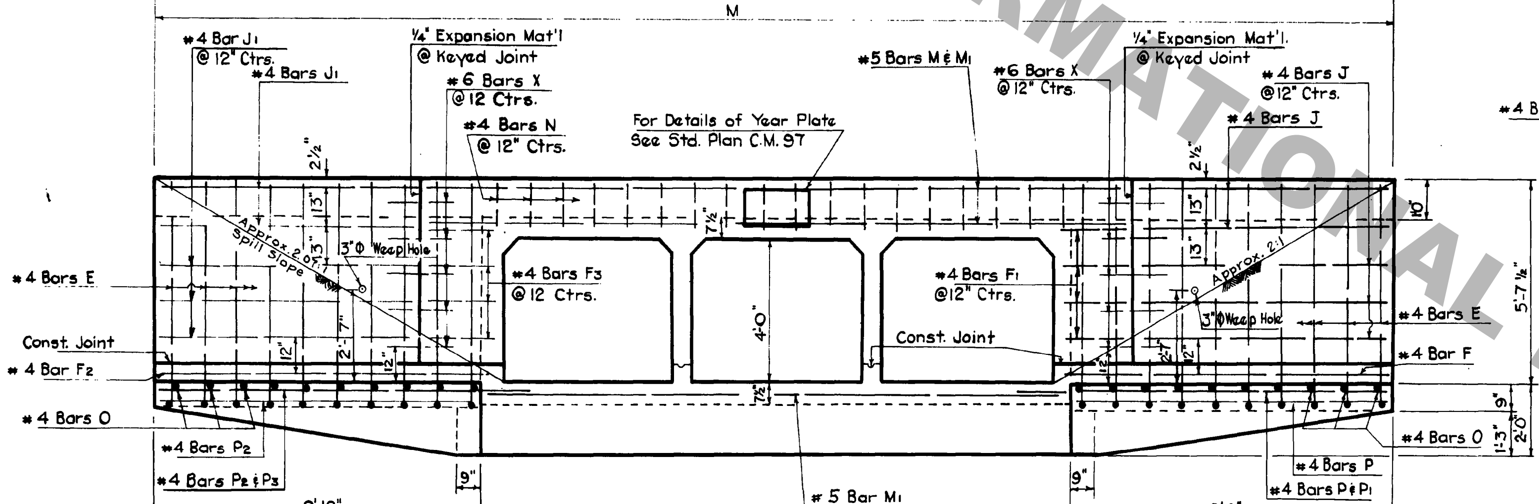

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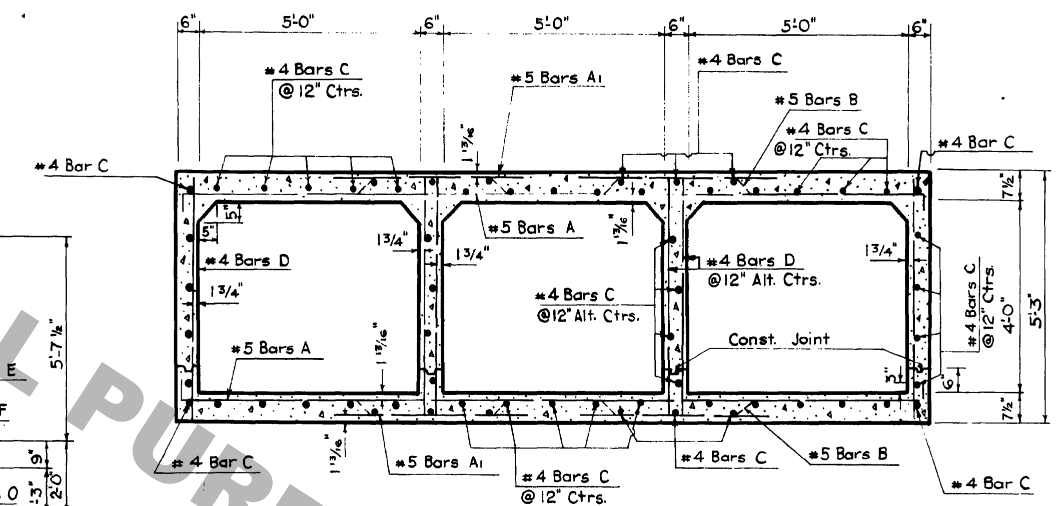

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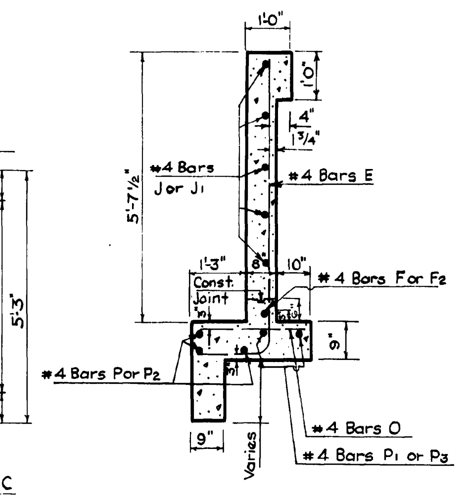

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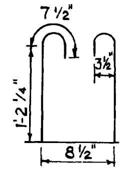
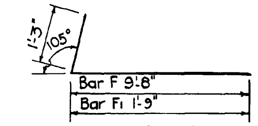
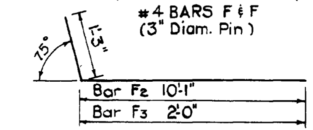


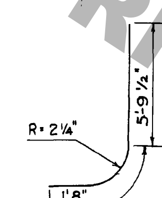
#4 BARS N
(3" Diam. Pin)



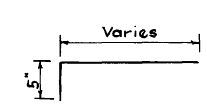
#4 BARS F & F
(3" Diam. Pin)



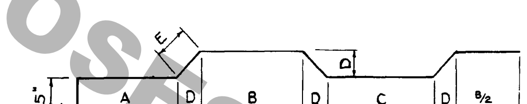
#4 BARS F2 & F3
(3" Diam. Pin)



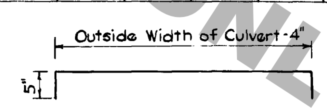
#4 BARS E



#5 BARS A2
(3 3/4" Diam. Pin)



DIMENSIONS FOR BARS B						
Size	Pin. Diam.	A	B	C	D	E
5' x 4'	3 3/4"	3'-11 1/16"	2'-8 1/8"	2'-2 1/8"	3 7/8"	5 1/2"



#5 BARS A
(3 3/4" Diam. Pin)

DIMENSIONS						QUANTITIES				OPENINGS	
OPENINGS			MAX. FILL		WINGS & CURBS	PER LINEAR FOOT OF BARREL		FOR 44'-0" OF CULVERT			
SIZE	NO.	AREA	SLAB	WALL	M	STEEL	CONCRETE	STEEL	CONCRETE	NO.	SIZE
FEET		SQ. FT.	FEET	FEET	FEET - INCHES	LBS.	CU. YDS.	LBS.	CU. YDS.		FEET
5x4	2	40	21	13	31 - 4 7/8	109.51	0.7675	5877	46.93	2	5 x 4
	3	60	27		37 - 1 3/16	165.22	1.1026	8610	63.23	3	
	4	80			42 - 9 1/2	220.92	1.4378	11314	79.52	4	
	5	100			48 - 5 7/8	276.62	1.7729	14125	95.82	5	
	6	120			54 - 2 3/16	332.33	2.1080	16832	112.12	6	

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

BARREL REINFORCEMENT

SIZE (FEET)	NO.	#5 BARS A NO.	#5 BARS A LENGTH Ft.-In.	#5 BARS A1 NO.	#5 BARS A1 LENGTH Ft.-In.	#5 BARS A2 NO.	#5 BARS A2 SHORT BAR Ft.-In.	#5 BARS A2 VAR. In.	#5 BARS A2 LONG BAR Ft.-In.	#5 BARS B NO.	#5 BARS B LENGTH Ft.-In.	#4 BARS C NO.	#4 BARS C LENGTH① Ft.-In.	#4 BARS D NO.	#4 BARS D LENGTH Ft.-In.
5x4	2	102	12-0	110	4-4	24	2-11	18.6000	10-8	104	12-3¼	42	47-2	138	4-11
	3	98	17-6	232	4-4	40	2-11	18.6667	16-11	100	18-0½	62	47-2	184	4-11
	4	96	23-0	356	4-4	52	2-11	18.6667	21-7	96	23-9¾	82	47-2	230	4-11
	5	92	28-6	496	4-4	68	2-11	18.6250	27-9	92	29-7	102	47-2	276	4-11
	6	88	34-0	624	4-4	80	2-11	18.6316	32-5	90	35-4¼	122	47-2	322	4-11

WINGS AND CURBS REINFORCEMENT

NO.	#4 BARS E NO.	#4 BARS E LENGTH	#4 BARS F NO.	#4 BARS F LENGTH	#4 BARS F1 NO.	#4 BARS F1 LENGTH	#4 BARS F2 NO.	#4 BARS F2 LENGTH	#4 BARS F3 NO.	#4 BARS F3 LENGTH	#4 BARS J NO.	#4 BARS J LENGTH	#4 BARS J1 NO.	#4 BARS J1 LENGTH	#4 BARS O NO.	#4 BARS O LENGTH	#4 BARS P NO.	#4 BARS P LENGTH	#4 BARS P1 NO.	#4 BARS P1 LENGTH	#4 BARS P2 NO.	#4 BARS P2 LENGTH	#4 BARS P3 NO.	#4 BARS P3 LENGTH
2–6	40	7-5½	2	10-11	8	3-0	2	11-4	8	3-3	10	7-6	10	7-8	40	2-4	6	9-4	4	10-11	6	9-6	4	11-6

NO.	#5 BARS M NO.	#5 BARS M LENGTH Ft.-In.	#5 BARS M1 NO.	#5 BARS M1 LENGTH Ft.-In.	#4 BARS N NO.	#4 BARS N LENGTH Ft.-In.	#6 BARS X④ NO.	#6 BARS X④ LENGTH Ft.-In.	OPENINGS NO.	OPENINGS SIZE FEET
2	4	15-0	6	11-6	24	4-4	20	2-0	2	5x4
3	4	20-8	6	17-3	36	4-4			3	
4	4	26-5	6	22-11	48	4-4			4	
5	4	32-1	6	28-7	58	4-4			5	
6	4	37-9	6	34-4	70	4-4			6	

① Includes 1 - 1'-6" Lap Splice

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

GENERAL NOTES

Construction Specifications: Latest Approved La. Dept. of Hwy. Standard Specifications.
Design Specifications: A.A.S.H.O. 1969 as Amended by Int. Specs., 1972.
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.A. 616 or Axle-Steel A.S.T.M.A. 617.
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.

C.C.S.M. 5-R. 75°. 1

APPROVED BY: Dempsey D. White 1-11-78
CHIEF ENGINEER DATE

DATE	DESCRIPTION	BY
1-11-78	Rev. Weep Hole Note	W.T.J.
5-30-75	Revised Spill Slope	W.T.J.

REVISIONS

STANDARD PLAN
MULTIPLE OPENING REINFORCED CONCRETE BOX CULVERT
STRAIGHT WINGS 75° CROSSING
2:1 SPILL SLOPE NORMAL TO CHANNEL
DATED Feb. 1973 2 THRU 6-5'x4'

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED W. Marcum	DETAILED C. Johnston	TRACED donna knight
CHECKED N. Brown	CHECKED J.J. Ribas	CHECKED C.D.J.