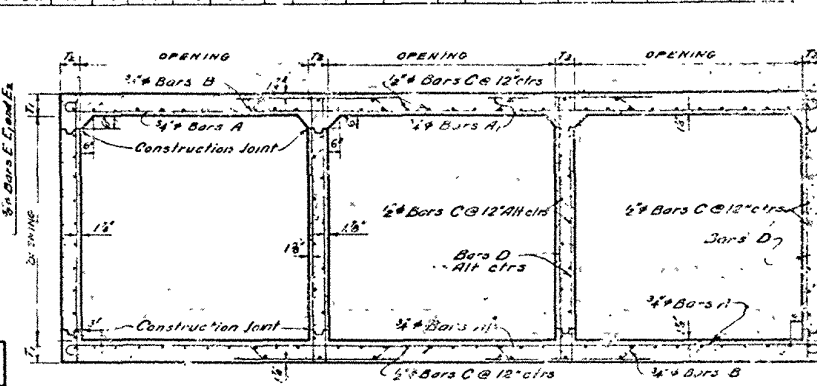
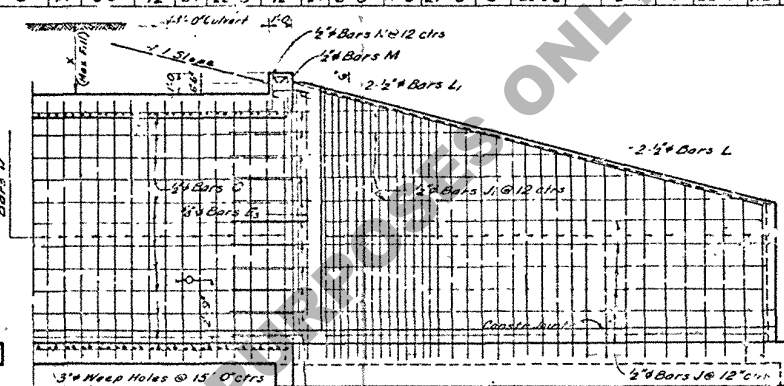
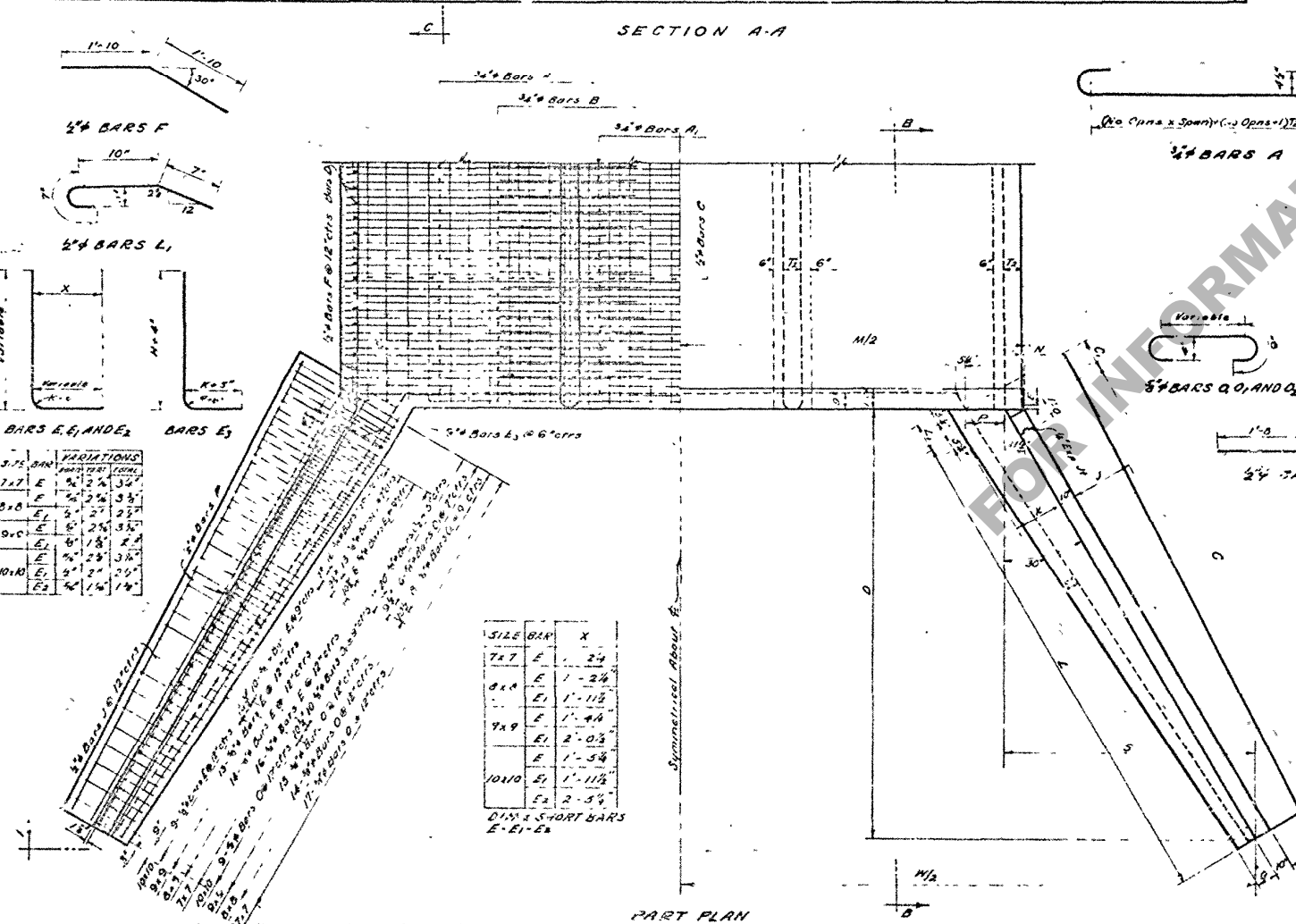


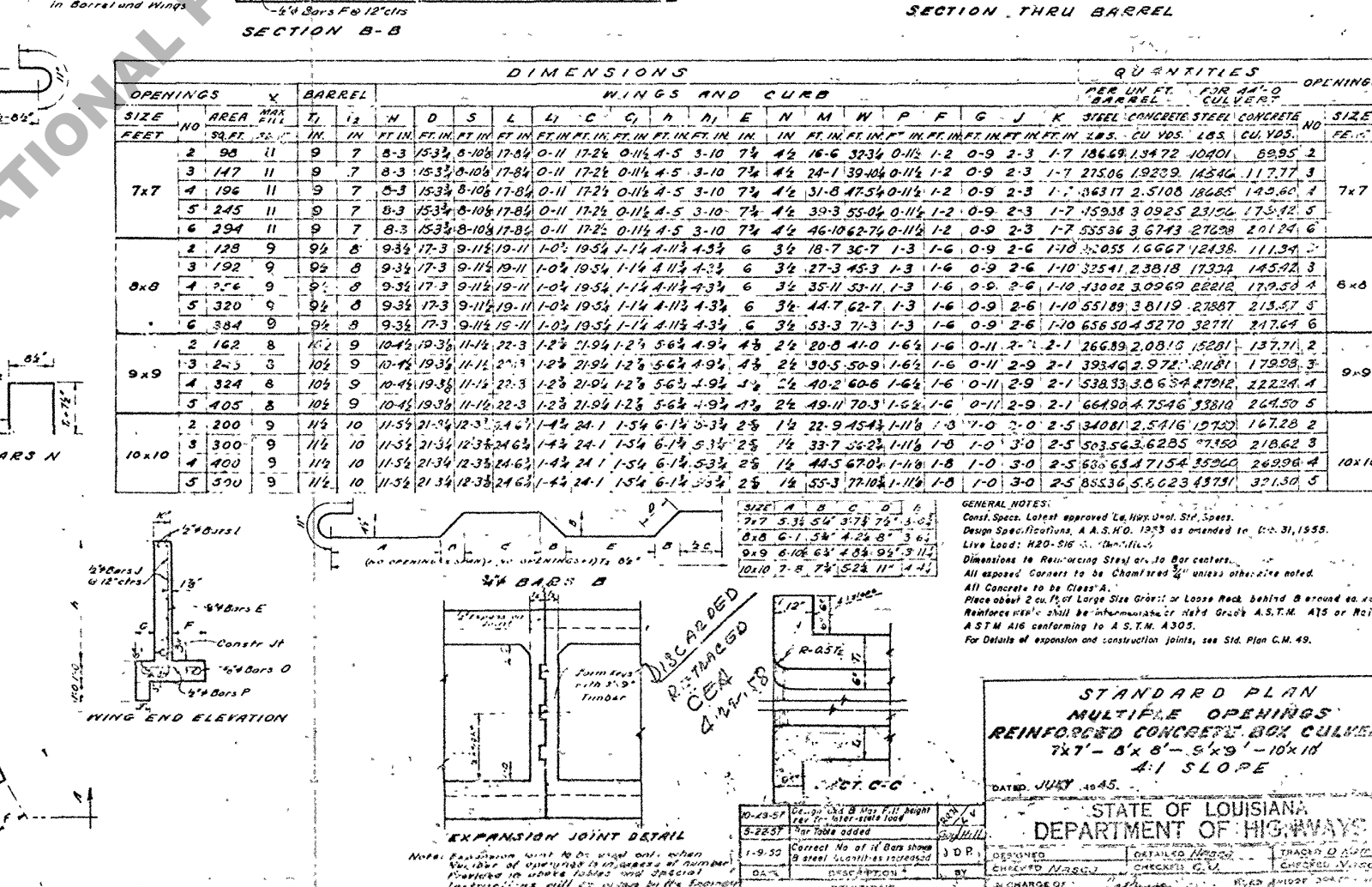
OPENINGS										BILL OF STEEL FOR 44" O.C. CULVERT										WINGS AND CURBS REINFORCEMENT										OPENINGS																																																																																																																																																																																																																																																																													
BARREL REINFORCEMENT																																																																																																																																																																																																																																																																																																											
SIZE	NO	4# BARS A				4# BARS S				4# BARS C				4# BARS D				4# BARS E				4# BARS F				4# BARS G				4# BARS H				4# BARS I				4# BARS J				4# BARS K				4# BARS L				4# BARS M				4# BARS N				4# BARS O				4# BARS P				4# BARS Q				4# BARS R				4# BARS S				4# BARS T				4# BARS U				4# BARS V				4# BARS W				4# BARS X				4# BARS Y				4# BARS Z				4# BARS AA				4# BARS AB				4# BARS AC				4# BARS AD				4# BARS AE				4# BARS AF				4# BARS AG				4# BARS AH				4# BARS AI				4# BARS AJ				4# BARS AK				4# BARS AL				4# BARS AM				4# BARS AN				4# BARS AO				4# BARS AP				4# BARS AQ				4# BARS AR				4# BARS AS				4# BARS AT				4# BARS AU				4# BARS AV				4# BARS AW				4# BARS AX				4# BARS AY				4# BARS AZ				4# BARS BA				4# BARS BB				4# BARS BC				4# BARS BD				4# BARS BE				4# BARS BF				4# BARS BG				4# BARS BH				4# BARS BI				4# BARS BJ				4# BARS BK				4# BARS BL				4# BARS BM				4# BARS BN				4# BARS BO				4# BARS BP				4# BARS BQ				4# BARS BR				4# BARS BS				4# BARS BT				4# BARS BU				4# BARS BV				4# BARS BW	



SECTION B-B



DIMENSIONS																				QUANTITIES									
OPENINGS		Y		BARREL		WINGS AND CURB														PER LIN. FT. FOR 44" O. CULVERT		OPENING							
SIZE	NO.	AREA	MAX	T ₁	T ₂	N	D	S	L	C ₁	C ₂	C ₃	C ₄	C ₅	N	M	W	P	F	G	J	K	STEEL	CONCRETE	STEEL	CONCRETE	NO.	SIZE	
FEET		SQ. FT.	IN.	IN.	IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FE.
7x7	2	90	11	9	7	8-3	15-33	8-10 1/2	17-8 1/4	0-11	17-2 1/2	0-11 1/2	4-5	3-10	7 1/4	4 1/2	16-6	32-34	0-11 1/2	1-2	0-9	2-3	1-7	186.69	134.72	104.01	69.95	2	
	3	147	11	9	7	8-3	15-33	8-10 1/2	17-8 1/4	0-11	17-2 1/2	0-11 1/2	4-5	3-10	7 1/4	4 1/2	24-1	39-46	0-11 1/2	1-2	0-9	2-3	1-7	275.06	192.99	145.46	111.77	3	
	4	196	11	9	7	8-3	15-33	8-10 1/2	17-8 1/4	0-11	17-2 1/2	0-11 1/2	4-5	3-10	7 1/4	4 1/2	31-8	47-54	0-11 1/2	1-2	0-9	2-3	1-7	367.17	251.08	196.85	149.66	4	7x7
	5	245	11	9	7	8-3	15-33	8-10 1/2	17-8 1/4	0-11	17-2 1/2	0-11 1/2	4-5	3-10	7 1/4	4 1/2	39-3	55-64	0-11 1/2	1-2	0-9	2-3	1-7	459.38	309.25	231.56	175.42	5	
8x8	6	294	11	9	7	8-3	15-33	8-10 1/2	17-8 1/4	0-11	17-2 1/2	0-11 1/2	4-5	3-10	7 1/4	4 1/2	46-10	62-76	0-11 1/2	1-2	0-9	2-3	1-7	555.36	367.43	276.38	201.64	6	
	2	128	9	9 1/2	8	9-3 1/2	17-3	9-11 1/2	19-11	1-0 1/2	19-5 1/4	1-14	4-11 1/2	4-3 1/2	6	3 1/2	18-7	36-7	1-3	1-6	0-9	2-6	1-10	55.55	166.67	124.38	111.34	2	
	3	192	9	9 1/2	8	9-3 1/2	17-3	9-11 1/2	19-11	1-0 1/2	19-5 1/4	1-14	4-11 1/2	4-3 1/2	6	3 1/2	27-3	45-3	1-3	1-6	0-9	2-6	1-10	325.41	238.18	173.24	145.42	3	
	4	256	9	9 1/2	8	9-3 1/2	17-3	9-11 1/2	19-11	1-0 1/2	19-5 1/4	1-14	4-11 1/2	4-3 1/2	6	3 1/2	35-11	53-11	1-3	1-6	0-9	2-6	1-10	430.02	309.69	228.12	179.50	4	8x8
9x9	5	320	9	9 1/2	8	9-3 1/2	17-3	9-11 1/2	19-11	1-0 1/2	19-5 1/4	1-14	4-11 1/2	4-3 1/2	6	3 1/2	44-7	62-7	1-3	1-6	0-9	2-6	1-10	551.89	381.19	278.87	213.57	5	
	6	384	9	9 1/2	8	9-3 1/2	17-3	9-11 1/2	19-11	1-0 1/2	19-5 1/4	1-14	4-11 1/2	4-3 1/2	6	3 1/2	53-3	71-3	1-3	1-6	0-9	2-6	1-10	656.50	452.70	327.71	247.66	6	
	2	162	8	10 1/2	9	10-4 1/2	19-35	11-14	22-3	1-2 1/2	21-94	1-2 1/2	5-6 1/2	4-9 1/2	4 1/2	24	20-8	41-0	1-6 1/2	1-6	0-11	2-9	2-1	266.39	208.10	158.81	137.71	2	
	3	253	8	10 1/2	9	10-4 1/2	19-35	11-14	22-3	1-2 1/2	21-94	1-2 1/2	5-6 1/2	4-9 1/2	4 1/2	26	30-5	50-9	1-6 1/2	1-6	0-11	2-9	2-1	339.46	297.12	211.81	179.58	3	9x9
10x10	4	324	8	10 1/2	9	10-4 1/2	19-35	11-14	22-3	1-2 1/2	21-94	1-2 1/2	5-6 1/2	4-9 1/2	4 1/2	26	40-2	60-6	1-6 1/2	1-6	0-11	2-9	2-1	538.33	366.54	279.12	222.24	4	
	5	405	8	10 1/2	9	10-4 1/2	19-35	11-14	22-3	1-2 1/2	21-94	1-2 1/2	5-6 1/2	4-9 1/2	4 1/2	26	49-11	70-3	1-6 1/2	1-6	0-11	2-9	2-1	664.90	475.46	339.10	264.50	5	
	2	200	9	11 1/2	10	11-5 1/2	21-34	12-15	24-6	1-4 1/2	24-1	1-5 1/4	6-14	5-3 1/2	2 1/2	14	22-9	45-43	1-11 1/2	1-0	1-0	3-0	2-5	340.81	254.16	197.50	167.28	2	
	3	300	9	11 1/2	10	11-5 1/2	21-34	12-15	24-6	1-4 1/2	24-1	1-5 1/4	6-14	5-3 1/2	2 1/2	14	33-7	56-23	1-11 1/2	1-0	1-0	3-0	2-5	503.54	362.85	271.50	218.62	3	
10x10	4	400	9	11 1/2	10	11-5 1/2	21-34	12-15	24-6	1-4 1/2	24-1	1-5 1/4	6-14	5-3 1/2	2 1/2	14	45-4	67-01	1-11 1/2	1-0	1-0	3-0	2-5	683.63	471.54	359.60	269.96	4	10x10
	5	500	9	11 1/2	10	11-5 1/2	21-34	12-15	24-6	1-4 1/2	24-1	1-5 1/4	6-14	5-3 1/2	2 1/2	14	55-3	77-03	1-11 1/2	1-0	1-0	3-0	2-5	885.36	586.23	437.91	341.30	5	



GENERAL NOTES:
Const. Specs. Latest approved "U. N. Y. Div. of St. Spec."
Design Specifications, A. A. S. H. O. 1953 as amended to 12-31-1955.
Live Load: H20-S16 S. (Imp. fil.).
Dimensions to Reinforcing Steel are to Bar centers.
All exposed Corners to be Chamfered $\frac{3}{4}$ " unless otherwise noted.
All Concrete to be Class "A".
Place about 2 cu. yd. of Large Size Gravel or Loose Rock behind & around each
Reinforcing Bar, shall be in immediate contact with Gravel A. S. T. M. 49 or
conform to the requirements of S. S. A. 435.
For Details of excavation and backfilling, consult the Sid. Plan & C. 49.

STANDARD PLAN
MULTIPLE OPENINGS
REINFORCED CONCRETE BOX CULVERT
7x7' - 8'x8' - 9'x9' - 10'x10'
4:1 SLOPE

DATE: JULY 40 45

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED <u>NRSG</u>	THICK <u>O AUTO</u>
CHECKED <u>NRSG</u>	CHECKED <u>C.U.</u>	CHECKED <u>NRSG</u>
IN CHARGE OF _____		