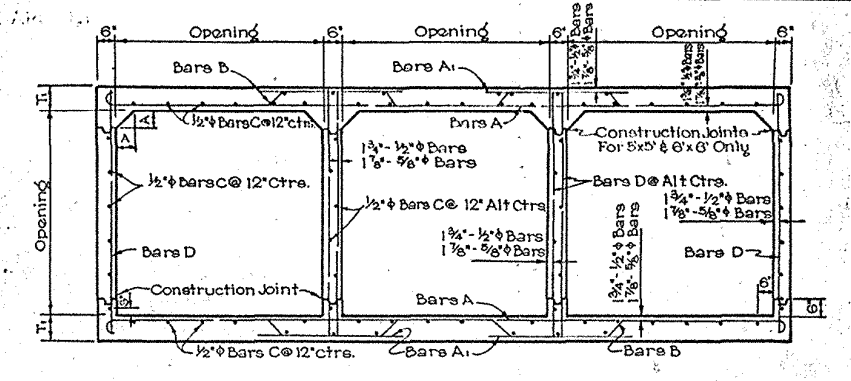
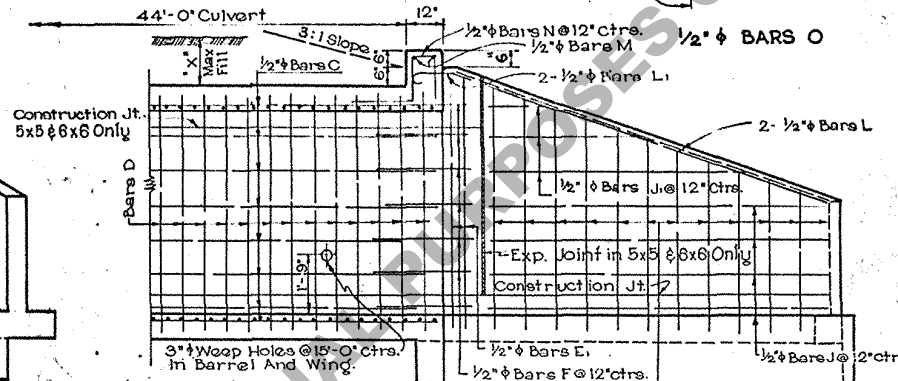
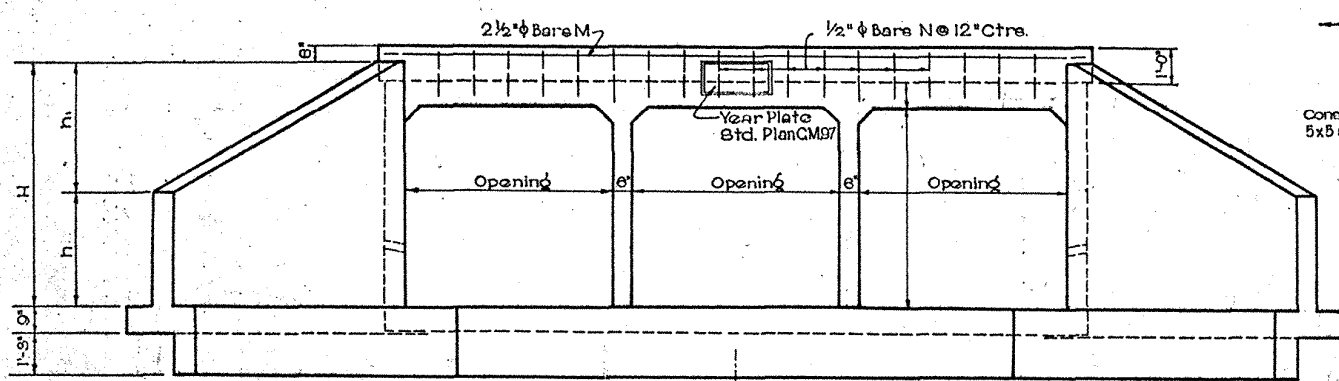
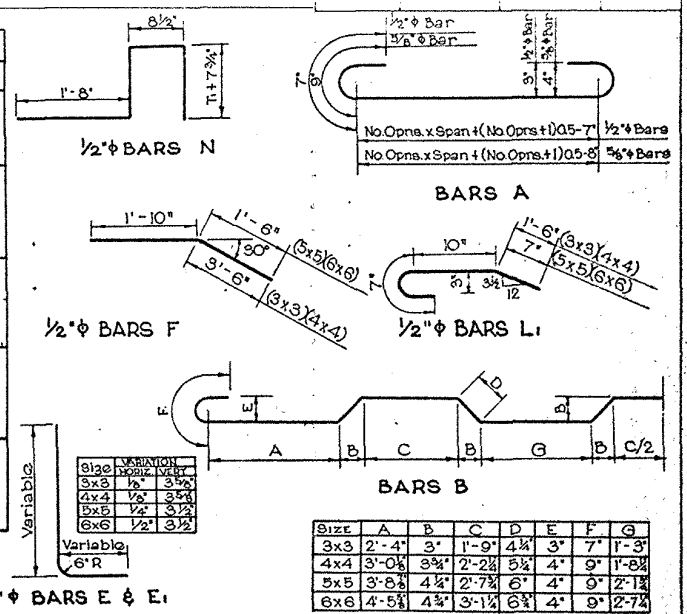
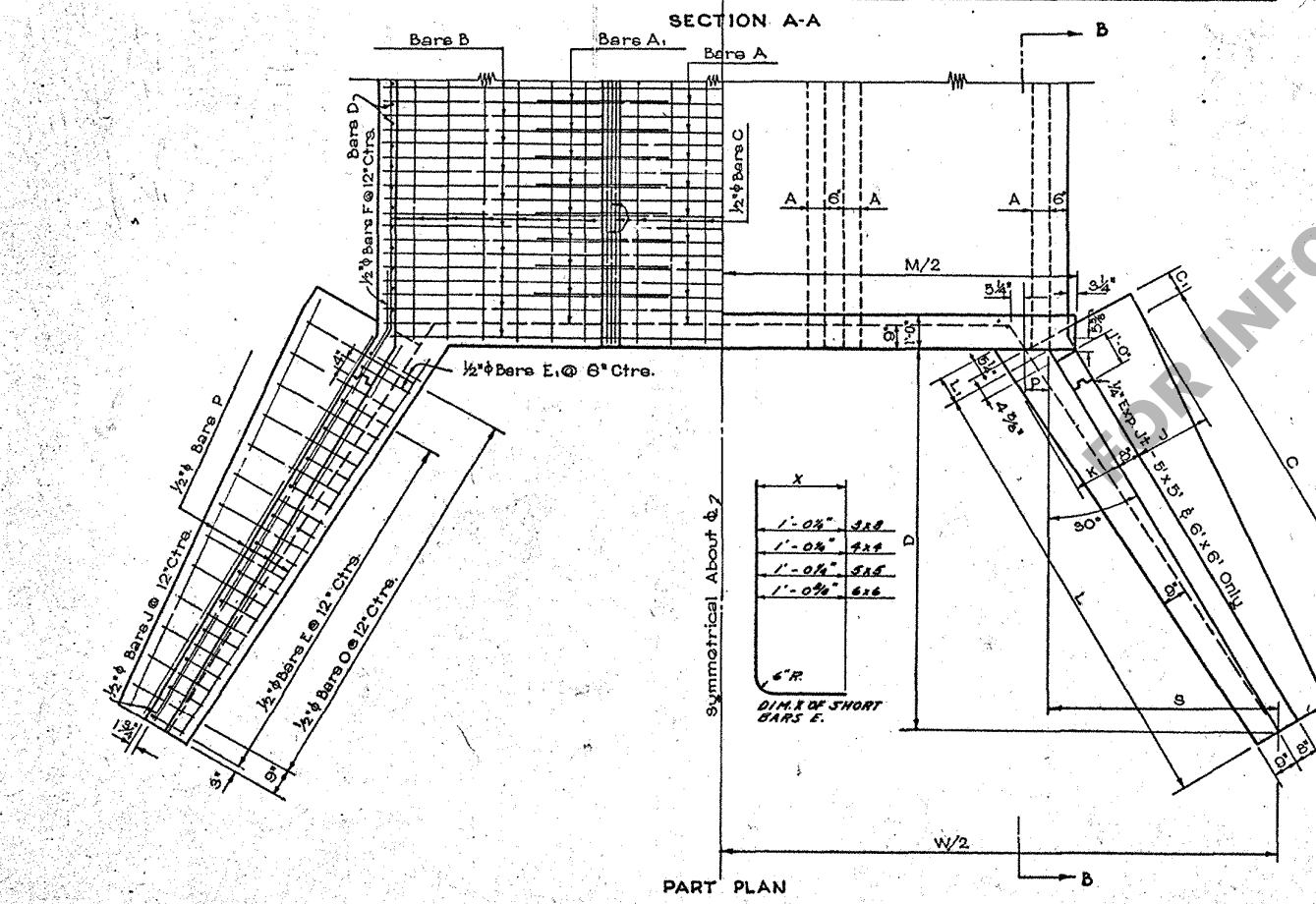


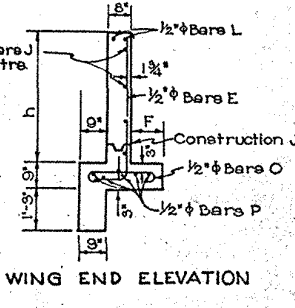
OPENINGS				BARREL REINFORCEMENT												WINGS AND CURBS REINFORCEMENT																								OPENINGS																											
SIZE FEET	No.	BARS A				BARS A ₁				BARS B				1/2" BARS C				BARS D				1/2" BARS E				1/2" BARS E ₁				1/2" BARS F				1/2" BARS J				1/2" BARS J ₁				1/2" BARS L				1/2" BARS L ₁				1/2" BARS M				1/2" BARS N				1/2" BARS O				1/2" BARS P				No.	SIZE FEET
		SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.	SIZE	No.	LGTH FT. IN.	SPC. IN.																		
3 x 3	2	1/2"	136	8'-1"	8	1/2"	136	3'-0"	8	1/2"	138	8'-3 1/2"	8	62	23'-9"	12	1/2"	138	3'-9"	12	24	3'-1 1/2"	3 3/4"	4'-8 1/4"	8	5'-0 1/2"	6	16	5'-4"	12	8	5'-9"	12	4			4'-3"	8	7'-1"	8	2'-11"	4	7'-9"	16	4'-9"	12	28	2'-7 1/4"	1/4"	2'-8 3/4"	20	7'-1"	2														
	3	"	136	11'-7"	8	"	272	3'-0"	8	"	138	12'-0"	8	92	23'-9"	12	"	184	3'-9"	12	24	3'-1 1/2"	3 3/4"	4'-8 1/4"	8	5'-0 1/2"	6	16	5'-4"	12	8	5'-9"	12	4			4'-3"	8	7'-1"	8	2'-11"	4	11'-3"	24	4'-9"	12	28	2'-7 1/4"	1/4"	2'-8 3/4"	20	7'-1"	3														
	4	"	136	15'-1"	8	"	408	3'-0"	8	"	138	15'-8 1/2"	8	122	23'-9"	12	"	230	3'-9"	12	24	3'-1 1/2"	3 3/4"	4'-8 1/4"	8	5'-0 1/2"	6	16	5'-4"	12	8	5'-9"	12	4			4'-3"	8	7'-1"	8	2'-11"	4	14'-9"	30	4'-9"	12	28	2'-7 1/4"	1/4"	2'-8 3/4"	20	7'-1"	4														
	5	"	136	18'-7"	8	"	544	3'-0"	8	"	138	19'-5"	8	152	23'-9"	12	"	276	3'-9"	12	24	3'-1 1/2"	3 3/4"	4'-8 1/4"	8	5'-0 1/2"	6	16	5'-4"	12	8	5'-9"	12	4			4'-3"	8	7'-1"	8	2'-11"	4	18'-3"	38	4'-9"	12	28	2'-7 1/4"	1/4"	2'-8 3/4"	20	7'-1"	5														
	6	"	136	22'-1"	8	"	680	3'-0"	8	"	138	23'-1 1/2"	8	182	23'-9"	12	"	322	3'-9"	12	24	3'-1 1/2"	3 3/4"	4'-8 1/4"	8	5'-0 1/2"	6	16	5'-4"	12	8	5'-9"	12	4			4'-3"	8	7'-1"	8	2'-11"	4	21'-9"	44	4'-9"	12	28	2'-7 1/4"	1/4"	2'-8 3/4"	20	7'-1"	6														
4 x 4	2	3/8"	90	10'-4"	12	3/8"	90	3'-6"	12	3/8"	92	10'-7"	12	76	23'-9"	12	3/8"	136	4'-11"	12	32	3'-7 1/2"	3 3/4"	5'-9 3/4"	8	6'-2"	6	20	5'-4"	12	12	7'-9"	12	8	1'-3"	3'-4"	4'-7"	8	9'-3"	8	2'-11"	4	9'-9"	20	4'-11"	12	36	2'-7 3/4"	1 1/2"	3'-6 1/4"	20	9'-1"	2														
	3	"	90	14'-10"	12	"	180	3'-6"	12	"	92	15'-4"	12	112	23'-9"	12	"	184	4'-11"	12	32	3'-7 1/2"	3 3/4"	5'-9 3/4"	8	6'-2"	6	20	5'-4"	12	12	7'-9"	12	8	1'-3"	3'-4"	4'-7"	8	9'-3"	8	2'-11"	4	14'-3"	30	4'-11"	12	36	2'-7 3/4"	1 1/2"																		



SECTION THRU BARREL



PART PLAN

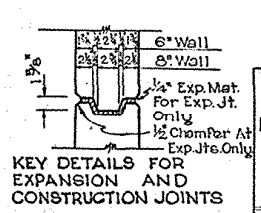


WING END ELEVATION

DIMENSIONS																						QUANTITIES								OPENINGS	
OPENINGS			X (Max.Fill)	BARREL		WINGS AND CURBS																PER LIN.FT. BARREL		FOR 44" O" CULVERT		NO.	SIZE FEET				
SIZE	NO.	AREA		T	A	H	D	S	L	h	h ₁	M	W	P	L ₁	C	C ₁	F	K	J	STEEL	CONCRETE	STEEL	CONCRETE							
FEET		SQ.FT.	FEET	IN	IN	FT IN	FT IN	FT IN	FT IN	FT IN	FT IN	FT IN	FT IN	IN	IN	FT IN	IN	IN	FT IN	FT IN	LBS.	CU YDS	LBS.	CU YDS							
3 x 3	2	18	30	6 3/4	3	4'-0 1/2	6'-6	3'-9	7'-6	1'-10 1/2	2'-2	8'-0 1/2	14'-0	1 1/8	5 3/4	7'-1 3/8	5 3/8	9	0'-10	0'-10	67.05	0.4722	3559	27.99	2	3 x 3					
	3	27	30	6 1/2	3	4'-0 1/2	6'-6	3'-9	7'-6	1'-10 1/2	2'-2	11'-6 1/2	17'-6	1 1/8	5 3/4	7'-1 3/8	5 3/8	9	0'-10	0'-10	100.03	0.6706	5117	37.65	3						
	4	36	30	6 1/2	3	4'-0 1/2	6'-6	3'-9	7'-6	1'-10 1/2	2'-2	15'-0 1/2	21'-0	1 1/8	5 3/4	7'-1 3/8	5 3/8	9	0'-10	0'-10	133.01	0.8689	6669	47.32	4						
	5	45	30	6 1/2	3	4'-0 1/2	6'-6	3'-9	7'-6	1'-10 1/2	2'-2	18'-6 1/2	24'-6	1 1/8	5 3/4	7'-1 3/8	5 3/8	9	0'-10	0'-10	165.99	1.0672	8227	56.98	5						
	6	54	30	6 1/2	3	4'-0 1/2	6'-6	3'-9	7'-6	1'-10 1/2	2'-2	22'-0 1/2	28'-0	1 1/8	5 3/4	7'-1 3/8	5 3/8	9	0'-10	0'-10	198.97	1.2655	9780	66.65	6						
4 x 4	2	32	30	7 1/2	4	5'-1 1/2	8'-3	4'-9 1/2	9'-6 1/2	2'-4 1/2	2'-8 1/2	10'-0 1/2	18'-0 1/2	1 1/8	5 3/4	9'-1 5/8	5 3/8	9	0'-10	1'-6	91.70	0.6703	4863	39.87	2	4 x 4					
	3	48	30	7 1/2	4	5'-1 1/2	8'-3	4'-9 1/2	9'-6 1/2	2'-4 1/2	2'-8 1/2	14'-6 1/2	22'-6 1/2	1 1/8	5 3/4	9'-1 5/8	5 3/8	9	0'-10	1'-6	135.45	0.9568	6921	53.69	3						
	4	64	30	7 1/2	4	5'-1 1/2	8'-3	4'-9 1/2	9'-6 1/2	2'-4 1/2	2'-8 1/2	19'-0 1/2	27'-0 1/2	1 1/8	5 3/4	9'-1 5/8	5 3/8	9	0'-10	1'-6	179.20	1.2433	8973	67.55	4						
	5	80	30	7 1/2	4	5'-1 1/2	8'-3	4'-9 1/2	9'-6 1/2	2'-4 1/2	2'-8 1/2	23'-6 1/2	31'-6 1/2	1 1/8	5 3/4	9'-1 5/8	5 3/8	9	0'-10	1'-6	222.93	1.5298	11032	81.39	5						
	6	96	30	7 1/2	4	5'-1 1/2	8'-3	4'-9 1/2	9'-6 1/2	2'-4 1/2	2'-8 1/2	28'-0 1/2	36'-0 1/2	1 1/8	5 3/4	9'-1 5/8	5 3/8	9	0'-10	1'-6	266.70	1.8164	13083	95.24	6						
5 x 5	2	50	26	8	5	6'-2	9'-11 1/2	5'-8 3/4	11'-5 1/2	2'-10 3/4	3'-3 3/4	12'-0 1/2	21'-11 1/2	3 3/8	6 7/8	11'-0 1/2	6 5/8	9	1'-0	1'-10	122.46	0.8586	6410	51.54	2	5 x 5					
	3	75	26	8	5	6'-2	9'-11 1/2	5'-8 3/4	11'-5 1/2	2'-10 3/4	3'-3 3/4	17'-6 1/2	27'-5 1/2	3 3/8	6 7/8	11'-0 1/2	6 5/8	9	1'-0	1'-10	160.13	1.2292	9114	69.39	3						
	4	100	26	8	5	6'-2	9'-11 1/2	5'-8 3/4	11'-5 1/2	2'-10 3/4	3'-3 3/4	23'-0 1/2	32'-11 1/2	3 3/8	6 7/8	11'-0 1/2	6 5/8	9	1'-0	1'-10	237.80	1.5998	11810	87.24	4						
	5	125	26	8	5	6'-2	9'-11 1/2	5'-8 3/4	11'-5 1/2	2'-10 3/4	3'-3 3/4	28'-6 1/2	38'-5 1/2	3 3/8	6 7/8	11'-0 1/2	6 5/8	9	1'-0	1'-10	295.44	1.9705	14514	105.10	5						
	6	150	26	8	5	6'-2	9'-11 1/2	5'-8 3/4	11'-5 1/2	2'-10 3/4	3'-3 3/4	34'-0 1/2	43'-11 1/2	3 3/8	6 7/8	11'-0 1/2	6 5/8	9	1'-0	1'-10	353.14	2.3411	17209	122.94	6						
6 x 6	2	72	20	8 1/2	6	7'-2 1/2	11'-7	6'-8 1/4	13'-4 1/2	3'-4 1/4	3'-10 3/4	14'-0	25'-10	8 1/8	9 1/4	12'-11 3/8	8 1/4	11	1'-4	2'-3	154.04	1.0602	8063	64.57	2	6 x 6					
	3	108	20	8 1/2	6	7'-2 1/2	11'-7	6'-8 1/4	13'-4 1/2	3'-4 1/4	3'-10 3/4	20'-6 1/2	32'-4 1/2	8 1/8	9 1/4	12'-11 3/8	8 1/4	11	1'-4	2'-3	226.55	1.5216	11451	86.77	3						
	4	144	20	8 1/2	6	7'-2 1/2	11'-7	6'-8 1/4	13'-4 1/2	3'-4 1/4	3'-10 3/4	27'-0 1/2	38'-10 1/2	8 1/8	9 1/4	12'-11 3/8	8 1/4	11	1'-4	2'-3	299.04	1.9830	14833	108.94	4						
	5	180	20	8 1/2	6	7'-2 1/2	11'-7	6'-8 1/4	13'-4 1/2	3'-4 1/4	3'-10 3/4	33'-6 1/2	45'-4 1/2	8 1/8	9 1/4	12'-11 3/8	8 1/4	11	1'-4	2'-3	371.53	2.4444	18223	131.11	5						
	6	216	20	8 1/2	6	7'-2 1/2	11'-7	6'-8 1/4	13'-4 1/2	3'-4 1/4	3'-10 3/4	40'-0 1/2	51'-10 1/2	8 1/8	9 1/4	12'-11 3/8	8 1/4	11	1'-4	2'-3	444.02	2.9058	21604	153.28	6						

GENERAL NOTES:
Specifications: Latest Approved La.Hwy. Dept. Std. Specs.
Design Specifications: AASHTO, 1941. H20-S16 Loading
All Concrete to be Class "A"
Dimensions to Reinforcing Steel Are to
Bar Centers.
All Exposed Corners to be Chamfered $\frac{3}{4}$ "
Expansion Joint in Wings Of 5'x5' & 6'x6' Only.

Place About 1 Cu. Ft. of Large Size Gravel or
Loose Rock Behind And Around Each Weep Hole.
When Culvert is Located At a Site Subject To
Scour, The Curtain Walls Shall be Made
Deeper, or Rip Rap Placed Around Inside
Face of Curtain Walls To Prevent Scouring.



KEY DETAILS FOR
EXPANSION AND
CONSTRUCTION JOINTS

Barrel Sections Taken From Std. Plan CC-8-20

STANDARD PLAN

MULTIPLE OPENINGS

REINFORCED CONCRETE BOX CULVERTS

3' x 3', 4' x 4', 5' x 5', 6' x 6'

3:1 SLOPE

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

			STATE OF LOUISIANA DEPARTMENT OF HIGHWAYS		
			DESIGNED	DETAILED <i>C.A.H.</i>	TRACED <i>G.R. Nordmark</i>
			CHECKED	CHECKED <i>R.L.G.</i>	CHECKED <i>R.L.G.</i>
<i>E22-57</i>	<i>Net Dimensions Added</i>	<i>5/4/1001</i>			
DATE	DESCRIPTION	BY	IN CHARGE OF		
REVISIONS					