



DESIGN NO.	CLEAR SPAN FT.	CLEAR HEIGHT FT.	AREA OF CURB IN ONE CURBAIN WALL CU. YDS. PER FT. OF DEPTH	BARREL OF CULVERT										TWO WINGS AND ONE APRON										TWO CURBS										TOTAL QUANTITIES				DESIGN NO.								
				REINFORCING STEEL										REINFORCING STEEL										REINFORCING STEEL										26' ROADWAY		30' ROADWAY										
				DIMENSIONS		BARS A		BARS A1		BARS B BENT		BARS C		BARS H		DIMENSIONS		BARS D		BARS E		BARS F		BARS G		BARS G1		REINF. STEEL LBS.	CLASS A CONC. CU. YDS.	REINF. STEEL LBS.	CLASS A CONC. CU. YDS.	REINF. STEEL LBS.	CLASS A CONC. CU. YDS.	REINF. STEEL LBS.	CLASS A CONC. CU. YDS.											
1	2'-0"	16	7'	6"	3'-2"	10'-0"	9'-3"	5'-6"	10'-11"	10'-11"	4'-4"	2'-5"	2'-11"	3"	1/2" φ - 9"	4'-10"	1/2" φ - 18"	20	1/2" φ - 9"	3'-2"	59.81	0.601	2'-11"	1'-7"	3'-2"	2'-9"	11	3'-2"	3	2	5'-2"	2	5'-2"	8	82	1.43	10'-8"	9'-8"	86	0.89	0.336	1929	21.25	2168	23.65	1
2	2'-6"	20	7'	6"	3'-3"	10'-0"	9'-3"	5'-6"	10'-11"	10'-11"	4'-4"	2'-5"	2'-11"	3"	1/2" φ - 9"	5'-4"	1/2" φ - 18"	20	1/2" φ - 9"	3'-2"	61.62	0.638	3'-5"	1'-8"	3'-0"	3'-4"	11	3'-9"	3	2	5'-3"	2	5'-10"	10	97	1.84	10'-8"	9'-8"	86	0.89	0.353	2005	23.14	2252	25.69	2
3	3'-0"	24	7'	6"	4'-2"	10'-0"	9'-3"	5'-6"	10'-11"	10'-11"	4'-4"	2'-5"	2'-11"	3"	1/2" φ - 9"	5'-4"	1/2" φ - 18"	22	1/2" φ - 9"	3'-2"	64.79	0.675	3'-11"	1'-10"	4'-6"	3'-10"	11	4'-4"	4	2	5'-3"	4	6'-6"	10	125	2.28	10'-8"	9'-8"	86	0.89	0.369	2150	25.09	2409	27.79	3
4	4'-0"	32	7'	6"	5'-2"	10'-0"	9'-3"	5'-6"	10'-11"	10'-11"	4'-4"	2'-5"	2'-11"	3"	1/2" φ - 9"	6'-10"	1/2" φ - 18"	26	1/2" φ - 9"	3'-2"	72.35	0.829	4'-11"	2'-0"	5'-0"	3'-10"	11	5'-6"	5	4	Var.	4	7'-0"	14	179	3.21	11'-0"	10'-0"	89	0.91	0.402	2473	31.35	2762	34.66	4
5	5'-0"	40	7'	6"	6'-3"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	5'-5"	1/2" φ - 18"	24	1/2" φ - 9"	3'-5"	72.76	0.725	2'-11"	1'-8"	3'-2"	2'-9"	13	3'-2"	3	2	5'-2"	2	5'-2"	8	92	1.60	12'-8"	11'-8"	103	1.05	0.386	2324	25.32	2615	28.22	5
6	6'-0"	50	7'	6"	7'-4"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	5'-11"	1/2" φ - 18"	24	1/2" φ - 9"	3'-11"	74.57	0.762	3'-5 1/2"	1'-8"	3'-0"	3'-4"	13	3'-9"	3	2	5'-3"	2	5'-10"	10	107	2.03	12'-8"	11'-8"	103	1.05	0.402	2405	27.25	2703	30.30	6
7	7'-0"	60	7'	6"	8'-5"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	6'-5"	1/2" φ - 18"	24	1/2" φ - 9"	4'-5"	76.38	0.799	3'-11"	1'-10"	4'-6"	3'-10"	13	4'-4"	4	2	5'-3"	4	6'-6"	10	137	2.50	12'-8"	11'-8"	103	1.05	0.418	2516	29.26	2821	32.45	7
8	8'-0"	70	7'	6"	9'-6"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	7'-5"	1/2" φ - 18"	28	1/2" φ - 9"	5'-6"	84.01	0.954	4'-11"	2'-1"	5'-0"	3'-10"	13	5'-6"	5	4	Var.	4	7'-0"	14	194	3.52	13'-0"	12'-0"	106	1.07	0.451	2846	35.72	3182	39.54	8
9	9'-0"	80	7'	6"	10'-7"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	8'-5"	1/2" φ - 18"	32	1/2" φ - 9"	6'-6"	91.49	1.117	5'-11"	2'-4"	7'-2"	3'-10"	13	6'-8"	5	6	Var.	4	9'-2"	18	258	4.69	13'-4"	12'-4"	109	1.10	0.484	3187	42.72	3553	47.19	9
10	10'-0"	100	7'	6"	12'-8"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	9'-5"	1/2" φ - 18"	32	1/2" φ - 9"	7'-6"	95.11	1.216	6'-11"	2'-6"	8'-6"	7'-10"	13	7'-9"	7	6	Var.	6	10'-6"	22	330	6.60	13'-9"	12'-4"	111	1.13	0.524	3434	49.43	3815	54.29	10
11	11'-0"	120	7'	6"	14'-9"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	10'-5"	1/2" φ - 18"	26	1/2" φ - 9"	3'-7"	89.83	0.903	3'-0"	1'-8"	3'-2"	2'-9"	15	3'-2"	3	2	5'-2"	2	5'-2"	8	101	1.76	12'-8"	13'-8"	120	1.22	0.435	2837	30.89	3197	34.51	11
12	12'-0"	140	7'	6"	16'-10"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	11'-5"	1/2" φ - 18"	26	1/2" φ - 9"	3'-11"	91.64	0.940	3'-6"	1'-10"	3'-0"	3'-4"	15	3'-9"	3	2	5'-3"	4	5'-10"	10	125	2.24	13'-8"	13'-8"	120	1.22	0.451	2936	32.92	3302	36.68	12
13	13'-0"	160	7'	6"	18'-11"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	12'-5"	1/2" φ - 18"	30	1/2" φ - 9"	4'-1"	97.48	1.032	4'-0"	1'-11"	4'-6"	3'-10"	15	4'-4"	4	2	5'-3"	4	6'-10"	10	149	2.70	15'-0"	14'-0"	123	1.25	0.468	3150	36.48	3540	40.61	13
14	14'-0"	180	7'	6"	20'-2"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	13'-5"	1/2" φ - 18"	30	1/2" φ - 9"	4'-1"	51.9	1.135	5'-0"	2'-1"	5'-0"	3'-10"	15	5'-6"	5	4	Var.	4	7'-0"	14	209	3.81	15'-0"	14'-0"	123	1.25	0.501	3380	41.65	3786	46.19	14
15	15'-0"	200	7'	6"	22'-3"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	14'-5"	1/2" φ - 18"	34	1/2" φ - 9"	5'-6"	109.06	1.300	6'-0"	2'-5"	7'-2"	3'-10"	15	6'-8"	5	6	Var.	4	9'-2"	18	277	5.07	15'-4"	14'-4"	126	1.27	0.534	3734	48.88	4170	54.08	15
16	16'-0"	220	7'	6"	24'-4"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	15'-5"	1/2" φ - 18"	38	1/2" φ - 9"	7'-9"	115.40	1.399	7'-0"	2'-8"	8'-6"	7'-10"	15	7'-9"	7	6	Var.	6	10'-6"	22	351	7.08	15'-9"	14'-4"	128	1.30	0.572	4061	55.78	4523	61.38	16
17	17'-0"	240	7'	6"	26'-5"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	16'-5"	1/2" φ - 18"	32	1/2" φ - 9"	4'-5"	139.93	1.368	3'-8"	1'-11"	3'-0"	3'-4"	19	3'-9"	3	2	5'-3"	4	5'-10"	10	144	2.60	16'-0"	15'-0"	225	1.57	0.550	4431	46.17	4991	51.65	17
18	18'-0"	260	7'	6"	28'-6"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	17'-5"	1/2" φ - 18"	32	1/2" φ - 9"	5'-11"	141.74	1.411	4'-2"	2'-1"	4'-6"	3'-10"	19	4'-4"	4	2	5'-3"	4	6'-10"	10	173	3.18	16'-0"	15'-0"	225	1.57	0.567	4540	48.57	5107	54.22	18
19	19'-0"	280	7'	6"	30'-7"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	18'-5"	1/2" φ - 18"	36	1/2" φ - 9"	6'-0"	148.24	1.514	5'-2"	2'-3"	5'-0"	3'-10"	19	5'-6"	5	4	Var.	4	7'-0"	14	239	4.42	16'-0"	15'-0"	225	1.57	0.600	4854	54.00	5447	60.06	19
20	20'-0"	300	7'	6"	32'-8"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	19'-5"	1/2" φ - 18"	40	1/2" φ - 9"	7'-0"	156.32	1.633	6'-2"	2'-6"	7'-2"	3'-10"	19	6'-8"	5	6	Var.	4	9'-2"	18	313	5.81	16'-4"	15'-4"	229	1.59	0.633	5232	61.60	5857	68.33	20
21	21'-0"	320	7'	6"	34'-9"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	20'-5"	1/2" φ - 18"	40	1/2" φ - 9"	8'-0"	159.95	1.781	7'-2"	2'-9"	8'-6"	7'-10"	19	7'-9"	7	6	Var.	6	10'-6"	22	394	7.97	16'-9"	15'-4"	231	1.62	0.673	5498	68.77	6137	75.90	21
22	22'-0"	340	7'	6"	37'-0"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	21'-5"	1/2" φ - 18"	44	1/2" φ - 9"	9'-0"	166.29	1.880	8'-2"	3'-0"	9'-0"	8'-6"	19	8'-11"	9	8	Var.	6	11'-0"	26	605	9.83	16'-9"	15'-4"	231	1.62	0.706	6097	75.33	6762	82.85	22
23	23'-0"	360	7'	6"	39'-1"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	22'-5"	1/2" φ - 18"	48	1/2" φ - 9"	10'-0"	173.51	2.039	9'-2"	3'-2"	11'-2"	9'-8"	19	10'-11"	10	10	Var.	6	13'-2"	28	718	11.80	16'-11"	15'-6"	234	1.63	0.739	6528	83.80	7222	91.96	23
24	24'-0"	380	7'	6"	41'-2"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	23'-5"	1/2" φ - 18"	38	1/2" φ - 9"	4'-7"	187.26	1.754	3'-9"	2'-0"	3'-0"	3'-4"	23	3'-9"	3	2	5'-3"	4	5'-10"	10	163	2.99	23'-0"	22'-0"	274	1.90	0.649	5843	58.29	6592	65.31	24
25	25'-0"	400	7'	6"	43'-3"	12'-0"	11'-3"	5'-6"	12'-2"	12'-2"	5'	3'-0"	2'-5"	3 1/2"	1/2" φ - 9"	24'-5"	1/2" φ - 18"	38	1/2" φ - 9"	5'-11"	199.03	1.797	4'-3"	2'-2"	4'-6"	3'-10"	23	4'-4"	4	2	5'-3"	4	6'-10"	10	196	3.63	23'-0"	22'-0"	274	1.90	0.665	6081	67.17	6799	67.99	25
26	26'-0																																													