OUTFALL ID	OUTFALL DESCRIPTION	RECEIVING WATERS	DISTURBED AREA (AC)	PRE-CONSTRUCTION DRAINAGE AREA (AC)	SLOPE	C	Q 25 YR (CFS)	V 25 YR (FPS)	Q 50 YR (CFS)	V 50 YR (FPS)	Q 100 YR (CFS)	V 100 YR (FPS)	POST-CONSTRUCTION DRAINAGE AREA (AC)	SLOPE	C	Q 25 YR (CFS)	V 25 YR (FPS)	Q 50 YR (CFS)	V 50 YR (FPS)	Q 100 YR (CFS)	V 100 YR (FPS)
A	18" CROSS DRAIN PIPE SR 16 STA 20+67.89 54.19' LT	KIMBALL'S LAKE	1.69	4.02	0.0290	0.5715	11.60	12.09	12.82	12.17	14.00	11.41	4.32	0.0322	0.5342	14.01	13.32	15.47	13.76	16.90	13.96
B	4 FT FBD (STA 19+50 TO 27+50) SR 16 19+50.00 22.26' LT	FLINT RIVER	0.71	0.96	0.0163	0.5562	4.60	2.68	5.02	2.82	5.46	2.86	0.96	0.0080	0.6703	5.40	2.13	5.89	2.19	6.40	2.25
C	18" CROSS DRAIN PIPE SR 16 STA 34+85.00 70.64' LT	SHOAL CREEK	0.32	6.05	0.0226	0.4048	16.56	12.04	18.24	12.10	19.89	11.26	6.05	0.0220	0.4079	16.69	11.86	18.38	11.92	20.04	11.34
D	24" CROSS DRAIN PIPE SR 16 STA 35+50.00 64.64' LT	SHOAL CREEK	0.33	6.97	0.0107	0.4059	18.04	9.46	19.91	9.66	21.73	9.82	6.97	0.0101	0.4081	18.14	9.23	20.02	9.45	21.85	9.55
E	4 FT FBD (STA 103+00 TO 106+50) CR 507 103+00.00 19.60' LT	FLINT RIVER	0.53	2.62	0.0310	0.4311	9.46	5.18	10.33	5.24	11.22	5.38	2.62	0.0103	0.4389	9.63	3.40	10.52	3.49	11.42	3.57
F	30" CROSS DRAIN PIPE TO 6 FT FBD CR 35 STA 116+50.00 44.23' LT	KIMBALL'S LAKE	3.18	13.91	0.0600	0.4274	35.85	3.95	39.63	3.95	43.30	3.95	13.47	0.0600	0.4491	36.47	3.95	40.31	3.95	44.05	3.95
G	4 FT FBD (STA 117+50 TO 121+00) CR 35 121+00.00 26.15' RT	KIMBALL'S LAKE	0.39	5.21	0.0254	0.4000	14.11	5.19	15.54	5.25	16.95	5.37	5.18	0.0333	0.4029	14.12	5.78	15.56	5.82	16.96	6.03
H	4 FT FBD (STA 38+50 TO 42+50) SR 16 42+50.00 20.03' RT	SHOAL CREEK	0.36	2.77	0.0174	0.4281	8.57	3.66	9.42	3.75	10.26	3.82	2.77	0.0110	0.4350	8.71	3.03	9.57	3.13	10.42	3.20
I	4 FT FBD (STA 41+50 TO 42+00) SR 16 41+96.21 17.95' LT	SHOAL CREEK	0.04	0.06	0.0280	0.6115	0.32	4.74	0.35	4.66	0.38	5.05	0.06	0.0280	0.6346	0.33	4.89	0.36	4.79	0.40	4.81
J	4 FT FBD (STA 103+50 TO 104+50) CR 507 103+50.00 18.79' RT	FLINT RIVER	0.07	1.40	0.0312	0.4123	4.83	3.21	5.27	3.35	5.73	3.35	1.40	0.0105	0.4127	4.83	2.15	5.28	2.19	5.73	2.29
K	4 FT FBD (STA 117+50 TO 121+00) CR 35 121+00.00 24.65' LT	KIMBALLS' LAKE	0.21	0.39	0.0349	0.6259	2.07	3.10	2.26	3.04	2.45	3.12	0.39	0.0320	0.6924	2.29	3.08	2.50	3.03	2.72	3.14

FBD = FLAT BOTTOM DITCH

TOTAL PROJECT AREA = 11.66 ACRES
TOTAL DISTURBED AREA = 9.34 ACRES
RUNOFF COEFFICIENTS USED:
PAVEMENT = 0.95
SHOULDER/OFFSITE = 0.40 (SINGLE FAMILY RESIDENTIAL)

STRUCTURE NUMBER	STATION & OFFSET	STRUCTURE TYPE	POSTCONSTRUCTION RUNOFF COEFFICIENT, C	PEAK FLOW, Q (CFS)	VELOCITY, V (FPS)	DRAINAGE AREA (AC)
A1	20+67.89 54.19' LT	18" FES	0.534	15.47	13.76	4.232
A2	20+75 36.50' RT	18" SES				
A3	23+78.00 41.78' RT	18" SES	0.556	11.03	9.33	3.022
A4	24+28.00 48.72' RT	18" SES				
A5	25+24.00 49.00' RT	18" SES	0.563	9.60	10.28	2.519
A6	25+71.00 49.00' RT	18" SES				
A7	27+29.00 44.00' RT	18" SES	0.572	8.25	14.21	1.999
A8	26+81.00 49.00' RT	18" SES				
A9	110+62.00 40.00' LT	18" SES	0.503	4.52	5.65	1.158
A10	110+16.00 40.00' LT	18" SES				
A11	108+22.00 38.27' LT	18" SES	0.498	1.32	5.04	0.315
A12	107+69.00 37.09' LT	18" SES				
B1	22+81.00 39.29' LT	18" SES	0.693	3.40	7.26	0.585
B2	23+39.00 40.34' LT	18" SES				
B3	23+74.00 40.98' LT	18" SES	0.701	2.81	7.02	0.478
B4	24+32.00 42.00' LT	18" SES				
B5	25+07.00 42.00' LT	18" SES	0.724	1.98	7.95	0.326
B6	25+53.00 42.00' LT	18" SES				
B7	25+64.00 42.00' LT	18" SES	0.750	1.50	7.83	0.239
B8	26+29.00 40.00' LT	18" SES				
C1	34+85.00 70.64' LT	18" FES				
C2	35+00.00 65.03' RT	18" FES	0.408	18.38	11.92	6.046
D1	35+50.00 64.64' LT	24" FES				
D2	36+10.00 62.70' RT	24" FES	0.408	20.02	9.45	6.974
E1	104+50.00 35.93' LT	18" SES	0.418	8.21	8.93	2.144
E2	105+00.00 36.50' RT	18" SES				
E3	105+24.00 36.00' LT	18" SES	0.518	0.70	5.45	0.162
E4	105+70.00 34.00' LT	18" SES				
F1	116+50.00 44.23' LT	30" SES				
F2	116+50.00 21.22' RT	MANHOLE	0.441	39.35	9.61	13.053
F3	116+65.00 35.22' RT	18" SES	0.404	8.75	15.07	2.551
F4	115+37.00 39.73' RT	30" SES	0.449	32.3	19.10	10.502
F4.1	116+00.00 22.33' RT	MANHOLE	0.449	32.3	9.06	10.502
F5	112+70.00 41.97' RT	24" SES	0.460	16.56	10.27	4.832
F6	111+15.00 50.76' RT	24" SES				
G1	120+28.00 34.29' RT	18" SES				
G2	119+83.00 32.61' RT	18" SES	0.404	11.10	7.42	1.578
G3	119+11.00 34.00' RT	18" SES				
G4	118+63.00 34.00' RT	18" SES	0.403	4.77	5.37	3.43

SES = SAFETY END SECTION FES = FLARED END SECTION

CROSS DRAINS DESIGNED FOR A 50 YEAR RAIN EVENT,
SIDE DRAIN PIPES (DRIVEWAYS) DESIGNED FOR A 25 YEAR RAIN EVENT.

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: ROADWAY DESIGN

DRAINAGE AREA MAP

SR 16 @ CR 35 & CR 507
SPALDING COUNTY

DRAWING No. 21-002