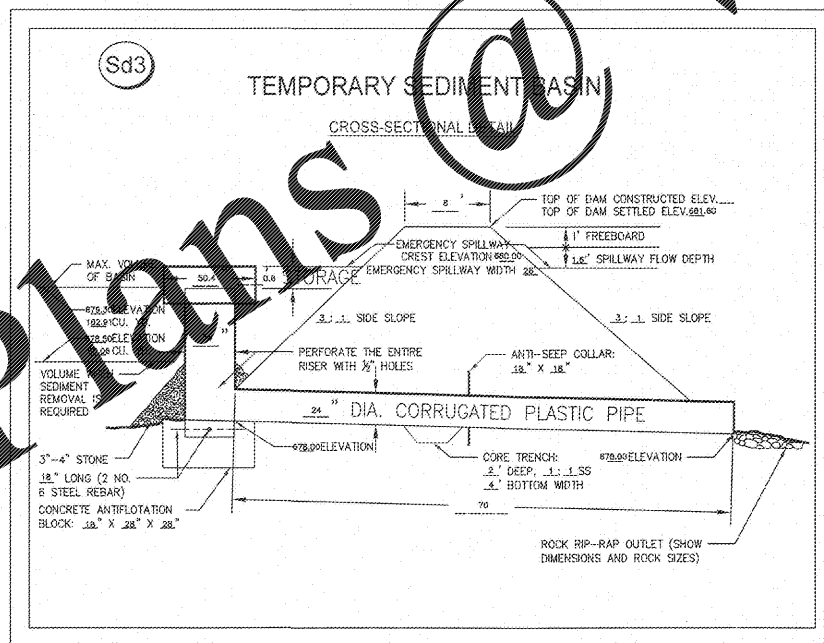
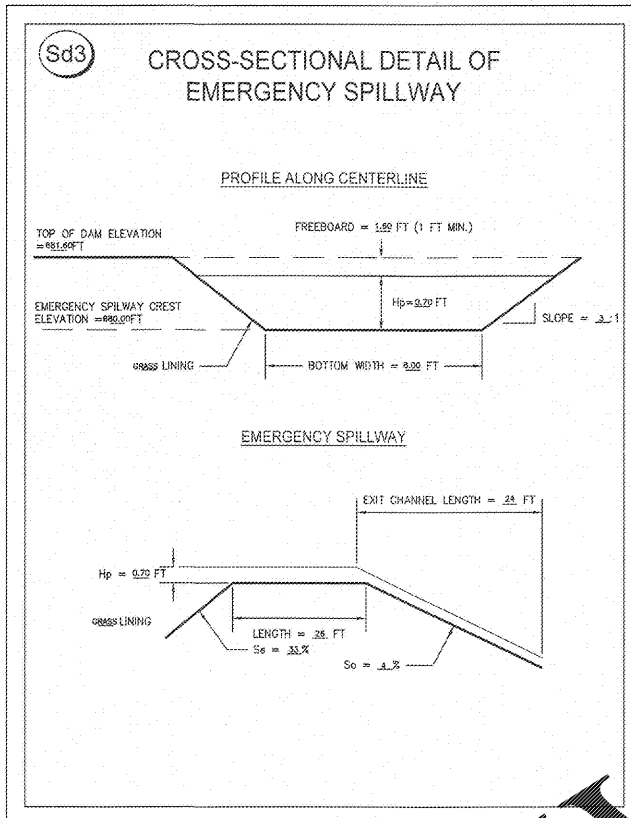


SEDIMENT BASIN No.1

TEMPORARY SEDIMENT BASIN DESIGN			
Item	Description	Value	Units
Project Information			
1	Project Name	Calhoun	
2	Basin No.	1	
3	Total area draining to basin	2.73 acres	
4	Disturbed area draining to basin	2.73 acres	
5	Bottom of Sed. Basin	679.50 ft	
6	Top of Dam	681.00 ft	
7	Em Spillway Crest Elevation	680.00 ft	
Volume			
1	Compute minimum required storage volume	282.50 cu yd	
2	Compute volume of basin at clean-out	80.04 cu yd	
3	Determine elevation corresponding to minimum required storage volume, V_s (Determined by stage/storage relationship)	679.50 ft	
4	Determine elevation corresponding to clean-out volume, V_c (Determined by stage/storage relationship)	679.50 ft	
5	Compute length of riser	1.50 ft	
Stormwater Runoff			
6	Compute peak discharge from a 2-yr, 24-hr storm event (Attach runoff computation sheet)	11.98 cfs	
7	Compute peak discharge from a 25-yr, 24-hr storm event (Attach runoff computation sheet)	22.66 cfs	
Surface Area/Configuration Design			
8	Compute minimum basin surface area (50Amfs)	4282.89 sq ft	
9	Check available area at elevation of riser crest (Determined by stage/storage relationship)	5279 sq ft	
10	Compute required length to achieve 2:1 slope ratio	3.11 ft	
Principal Spillway			
11	Determine minimum principal spillway capacity	11.98 cfs	
12	Compute the vertical distance between the centerline of the outlet pipe and the emergency spillway crest (H)	1.50 ft	
13	Compute the total pipe length of the principal spillway, L , using Figure 6-29.3 (or ACAD)	63.32 ft	
14	Determine diameter of principal spillway (Dps) and flow through the principal spillway (Qps) from Table 6-29.1 using H and Qps	12.00 in	
15	Compute actual flow through the principal spillway, using Table 6-29.1 to determine the correction factor for pipe length, L_c	11.58 cfs	
16	Compute riser diameter (Dr)	36.00 in	
17	Compute trash rack diameter (Dtr)	36.00 in	
18	Determine the minimum distance between the riser base and the emergency spillway crest, H_c , using Table 6-29.2, Dr, and Qps	0.00 ft	
Concrete Riser Base Design			
19	Determine the volume of concrete per vertical foot of riser height needed, from Table 6-29.3 to prevent flotation	6.36 cu yd/ft	
20	Compute total volume of concrete required	2.00 cu yd	
21	Assume base thickness, B (usually 18")	1.50 ft	
22	Compute required surface area	5.26 sq ft	
23	Compute riser base length (L) and width (W) (assume square base)	2.31 ft	
Anti-Seep Collar Design			
24	Determine if anti-seep collar is required. If yes to any of the following conditions, a collar is required: - The settled height of the dam is greater than 15 feet. - The principal spillway diameter (Dps) is corrugated metal pipe larger than 12". - The principal spillway diameter (Dps) is corrugated metal pipe larger than 12". - Increase size of anti-seep collar required. - 18-inch projection (for heads) (H) less than or equal to 10 feet. - 24-inch projection (for heads) (H) greater than 10 feet.	Yes	
Emergency Spillway (es)			
25	Compute minimum capacity of emergency spillway (Qes)	11.98 cfs	
26	Determine stage (Hs), bottom width (B), velocity (V), and minimum exit slope (S) using Table 6-29.4 and Qes	Hs = 0.27 ft, B = 8.00 ft, V = 3.27 ft/s, S = 4.00%	
27	Actual entrance channel slope	4.00%	
28	Actual exit channel slope. Note: If S is steeper than S from Table 6-29.4, then the velocity in the exit channel will increase.	4.00%	
29	Design Elevation	679.50 ft	
30	Other Crest Elevation	679.50 ft	
31	Compute minimum emergency spillway crest elevation	679.50 ft	
32	Determine design high water elevation	680.00 ft	
33	Determine elevation of top of dam	681.00 ft	

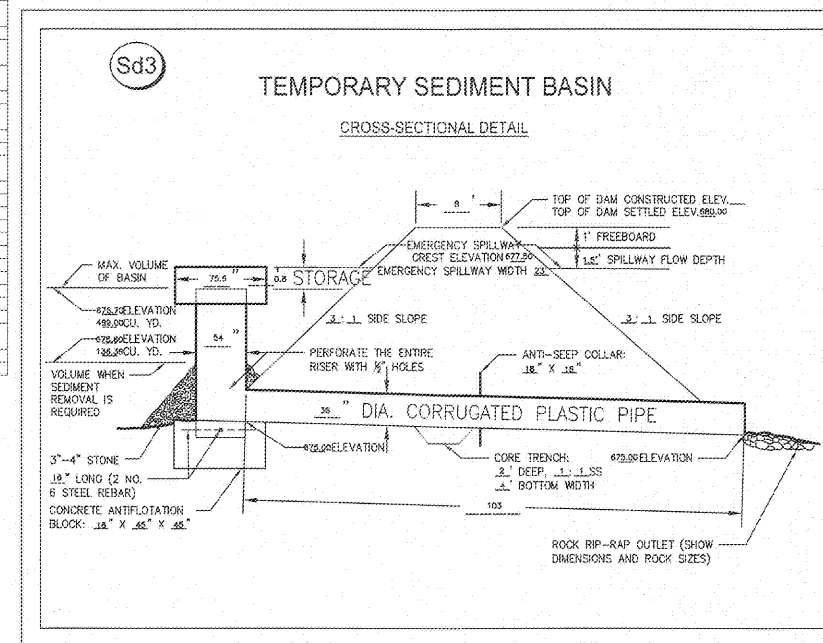
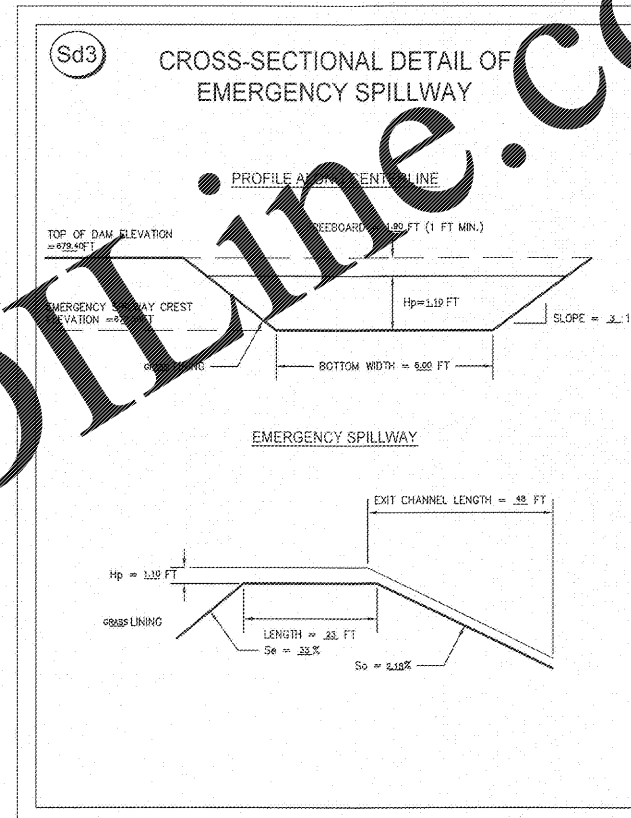
Basin 1 Faircloth Skimmer Dimensions
 Skimmer Size: 2.5 inch
 Orifice Radius: 1.2 inch(es)
 Orifice Diameter: 2.4 inch(es)



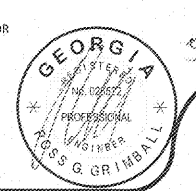
SEDIMENT BASIN No.2

TEMPORARY SEDIMENT BASIN DESIGN			
Item	Description	Value	Units
Project Information			
1	Project Name	Calhoun	
2	Basin No.	2	
3	Total area draining to basin	6.94 acres	
4	Disturbed area draining to basin	6.94 acres	
5	Bottom of Sed. Basin	679.50 ft	
6	Top of Dam	679.50 ft	
7	Em Spillway Crest Elevation	677.50 ft	
Volume			
1	Compute minimum required storage volume	418.27 cu yd	
2	Compute volume of basin at clean-out	126.36 cu yd	
3	Determine elevation corresponding to minimum required storage volume, V_s (Determined by stage/storage relationship)	676.50 ft	
4	Determine elevation corresponding to clean-out volume, V_c (Determined by stage/storage relationship)	676.50 ft	
5	Compute length of riser	1.50 ft	
Stormwater Runoff			
6	Compute peak discharge from a 2-yr, 24-hr storm event (Attach runoff computation sheet)	23.99 cfs	
7	Compute peak discharge from a 25-yr, 24-hr storm event (Attach runoff computation sheet)	51.69 cfs	
Surface Area/Configuration Design			
8	Compute minimum basin surface area (50Amfs)	10288.69 sq ft	
9	Check available area at elevation of riser crest (Determined by stage/storage relationship)	11076.00 sq ft	
10	Compute required length to achieve 2:1 slope ratio	2.11 ft	
Principal Spillway			
11	Determine minimum principal spillway capacity	23.99 cfs	
12	Compute the vertical distance between the centerline of the outlet pipe and the emergency spillway crest (H)	1.50 ft	
13	Compute the total pipe length of the principal spillway, L , using Figure 6-29.3 (or ACAD)	76.00 ft	
14	Determine diameter of principal spillway (Dps) and flow through the principal spillway (Qps) from Table 6-29.1 using H and Qps	36.00 in	
15	Compute actual flow through the principal spillway, using Table 6-29.1 to determine the correction factor for pipe length, L_c	28.88 cfs	
16	Compute riser diameter (Dr)	54.00 in	
17	Compute trash rack diameter (Dtr)	78.00 in	
18	Determine the minimum distance between the riser base and the emergency spillway crest, H_c , using Table 6-29.2, Dr, and Qps	0.00 ft	
Concrete Riser Base Design			
19	Determine the volume of concrete per vertical foot of riser height needed, from Table 6-29.3 to prevent flotation	13.90 cu yd/ft	
20	Compute total volume of concrete required	26.05 cu yd	
21	Assume base thickness, B (usually 18")	1.50 ft	
22	Compute required surface area	10.99 sq ft	
23	Compute riser base length (L) and width (W) (assume square base)	3.73 ft	
Anti-Seep Collar Design			
24	Determine if anti-seep collar is required. If yes to any of the following conditions, a collar is required: - The settled height of the dam is greater than 15 feet. - The principal spillway diameter (Dps) is corrugated metal pipe larger than 12". - The principal spillway diameter (Dps) is corrugated metal pipe larger than 12". - Increase size of anti-seep collar required. - 18-inch projection (for heads) (H) less than or equal to 10 feet. - 24-inch projection (for heads) (H) greater than 10 feet.	Yes	
Emergency Spillway (es)			
25	Compute minimum capacity of emergency spillway (Qes)	23.99 cfs	
26	Determine stage (Hs), bottom width (B), velocity (V), and minimum exit slope (S) using Table 6-29.4 and Qes	Hs = 0.27 ft, B = 8.00 ft, V = 4.20 ft/s, S = 2.50%	
27	Actual entrance channel slope	2.50%	
28	Actual exit channel slope. Note: If S is steeper than S from Table 6-29.4, then the velocity in the exit channel will increase.	2.50%	
29	Design Elevation	677.50 ft	
30	Other Crest Elevation	677.50 ft	
31	Compute minimum emergency spillway crest elevation	677.50 ft	
32	Determine design high water elevation	679.50 ft	
33	Determine elevation of top of dam	679.50 ft	

Basin 2 Faircloth Skimmer Dimensions
 Skimmer Size: 4 inch
 Orifice Radius: 1.7 inch(es)
 Orifice Diameter: 3.3 inch(es)



EROSION CONTROL CERTIFICATION
 I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.
 BY: *[Signature]*
 ROSS GRIMBALL, REGISTERED GEORGIA ENGINEER No. 026522
 LEVEL II CERTIFIED DESIGN PROFESSIONAL
 CERTIFICATION NUMBER 0000035848



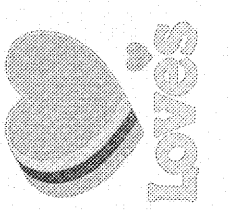
THIS DRAWING IS NOT VALID WITHOUT AN ORIGINAL BLUE INK SIGNATURE AND ORIGINAL HANDWRITTEN DATE OF A LICENSED PROFESSIONAL ENGINEER.
**SEDIMENT CONTROL
 DETAILS & NOTES**

ES-6

RC 161031
 File: 161031 details
 drawn: dmt
 date: 05-22-2018

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LOVE'S TRAVEL STOP
 I-75 EXIT 310 @ UNION GROVE ROAD
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81
 Know what's below.
 Call before you dig.

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