SEDIMENT STORAGE

The site has a total disturbed area of 51.18 acres. The following table summarizes the required and available sediment storage for every outfall on this project. The Contractor shall provide and maintain the storage volumes for the BMP's specified in this table.

Outfall ID	Total Drainage Area (acres)	Disturbed Area (acres)	Required Sediment Storage Volume (yd³)	Total Storage Volume Provided (yd³)	BMP's Used for Sediment Storage		
					Description	# of devices	Storage Volume per device (yd³)
STAGE 1							
STA. 1007+75, 130' RT - OUTLET OF EXISTING	0.45	0.17	31	44	TYPE C SILT FENCE	275 LF	0.16
36" PIPE							
STA. 1014+65, 197' LT - EXIST 36" FES	0.82	0.32	55	103	TYPE C SILT FENCE	500 LF	0.16
					FILTER RING	1	5
					STONE CHECK DAMS	10	17.5
STA. 1015+70, 96' RT - STRUCTURE # J-5 18" FES	1.40	0.25	94	102	TYPE C SILT FENCE	640 LF	0.16
STA. 1019+88, 131' RT - EXIST DROP INLET	2.05	0.56	137	239	TYPE C SILT FENCE	979 LF	0.16
					STONE CHECK DAMS	5	12
					STONE CHECK DAMS	3	7.4
STA. 1025+50, 101' RT - FES (L-3)	2.14	0.30	143	155	TYPE C SILT FENCE	480 LF	0.16
					FILTER RING	1	5
					STONE CHECK DAMS	4	18.5
STA. 1028+05, 151' RT - EXIST 8 X 7 CULVERT	2.32	0.84	156	228	TYPE C SILT FENCE	1002 LF	0.16
					STONE CHECK DAMS	9	7.5
STA. 1053+50 185' RT - MILL CREEK BRIDGE	9.13	8.34	612	1103	TYPE C SILT FENCE	2384 LF	0.16
					FILTER RING	3	5
					STONE CHECK DAMS	2	17.9
					STONE CHECK DAMS	6	2.2
					EXCAVATED INLET SEDIMENT TRAP	5	9.7
					RETROFITTING - STA. 805+50, LT	1	609
STA. 1056+00 156' LT - FES (P-1)	2.70	0.55	181	147	INLET SEDIMENT TRAP	3	10
					TYPE C SILT FENCE	732 LF	118
STA. 506+30, 52' RT - EXIST 5 X 5 CULVERT /	23.35	6.86	1565	3399	TYPE C SILT FENCE	2395 LF	0.16
SPILLWAY					TYPE C SILT FENCE	557 LF	0.08
					RETROFITTING - STA. 116+07, RT	1	2818
					STONE CHECK DAMS	4	4.5
					STONE CHECK DAMS	15	9
UNCONCENTRATED DIST. SHEETFLOW MISC	2.8	2.8	188	339	TYPE C SILT FENCE	1841 LF	0.16
					STONE CHECK DAMS	3	14.8
STAGE 2							
STA. 1015+70, 96' RT - STRUCTURE # J-5 18" FES	1.40	0.62	94	105	INLET SEDIMENT TRAP	3	35
STA. 1019+88, 131' RT - EXIST DROP INLET	0.77	0.32	52	239	INLET SEDIMENT TRAP	2	35
STA. 1025+50, 101' RT - FES (L-3)	0.20	0.08	14	70	INLET SEDIMENT TRAP	2	35
STA. 1053+50 185' RT - MILL CREEK BRIDGE	2.17	0.96	146	996	RETROFITTING - STA. 805+50, LT	1	609
STA. 502+42, 42' RT - SPILLWAY	0.10	0.09	7	10	INLET SEDIMENT TRAP	1	10
STA. 504+00, 40' RT - FES	2.00	1.72	134	183	EXCAVATED INLET SEDIMENT TRAP	1	22.6
					EXCAVATED INLET SEDIMENT TRAP	1	111.2
					EXCAVATED INLET SEDIMENT TRAP	1	10.5
					STONE CHECK DAMS	10	3.9
STA. 506+30, 52' RT - 5 X 5 CULVERT	23.35	9.68	1565	4190	TYPE C SILT FENCE	4947 LF	0.16
					TYPE C SILT FENCE	165 LF	0.08
					RETROFITTING - STA. 116+07, RT	1	2818
					STONE CHECK DAMS	3	6.4
					STONE CHECK DAMS	10	3
					STONE CHECK DAMS	12	5
					EXCAVATED INLET SEDIMENT TRAP	1	90.3
					EXCAVATED INLET SEDIMENT TRAP	1	217.5
					EXCAVATED INLET SEDIMENT TRAP	1	311
					ROCK FILTER DAM	2	33.8
					ROCK FILTER DAM	5	16.6
STA. 504+50, 44' RT - SPILLWAY	0.11	0.11	8	10	INLET SEDIMENT TRAP	1	10
STA. 506+50, 58' RT - SPILLWAY	0.31	0.31	21	28	INLET SEDIMENT TRAP	1	28
STA. 510+47, 82' RT - SPILLWAY	0.14	0.14	10	28	INLET SEDIMENT TRAP	1	28
STA. 512+45, 86' RT - SPILLWAY	0.10	0.15	7	10	INLET SEDIMENT TRAP	1	10
STA. 514+45, 86' RT - SPILLWAY	0.01	0.05	1	12	INLET SEDIMENT TRAP	1	12

Outfall ID	Total Drainage Area (acres)	Disturbed Area (acres)	Required Sediment Storage Volume (yds)	Total Storage Volume Provided (yd³)	BMP's Used for Sediment Storage		
					Description	# of devices	Storage Volume per device (yd³)
STAGE 2							
STA. 127+13, 90' LT - FES (H-0)	10.44	1.83	700	780	TYPE C SILT FENCE	1161 LF	0.16
					TYPE C SILT FENCE	202 LF	0.08
					EXCAVATED INLET SEDIMENT TRAP	21	21.6
					STONE CHECK DAMS	12	10.4
UNCONCENTRATED DIST. SHEETFLOW	8.66	6.6	580	756	TYPE C SILT FENCE	4722 LF	0.16
					STONE CHECK DAMS	8	7.4
STAGE 3							
STA. 1025+50, 101' RT - FES (L-3)	0.86	0.37	58	60	INLET SEDIMENT TRAP	3	20
STA. 1053+50 185' RT - MILL CREEK BRIDGE	7.05	0.82	473	828.35	RETROFITTING - STA. 805+50, LT	1	609
STA. 506+30, 52' RT - 5 X 5 CULVERT	23.25	4.57	1558	615	TYPE C SILT FENCE	3139 LF	0.16
					TYPE C SILT FENCE	163 LF	0.08
					STONE CHECK DAM	20	5.0
STA. 1056+00 156' LT - FES (P-1)	2.70	0.55	181	147	INLET SEDIMENT TRAP	3	10
					TYPE C SILT FENCE	732 LF	118
STA. 127+13, 90' LT - FES (H-0)	10.44	0.60	700	780	TYPE C SILT FENCE	1161 LF	0.16
UNCONCENTRATED DIST. SHEETFLOW	0.07	0.07	5	5	TYPE A SILT FENCE	60 LF	0.08
STAGE 4							
UNCONCENTRATED DIST. SHEETFLOW	1.93	0.55	130	132	TYPE C SILT FENCE	825 LF	0.16

In order to prevent runoff from bypassing inlet sediment traps, a temporary sump shall be installed around all inlet sediment traps that are not located in a low point or an excavated sump. Construct temporary sumps in accordance with Construction Detail D-24C Temporary sumps shall be installed in a manner that ensures stormwater does not bypass the inlet. The Contractor may submit alternate temporary containment berm designs to the Project Engineer for approval.

Existing 8'x7' Box Culvert at Sta. 1028+50 RT (Stage 2): The only sediment runoff in this area occurs as a result of the construction of the I-75 onsite detour as well as median/inside shoulder improvements on I-75. Locating a sediment basin in this area would require a much larger disturbance of land, as well as impacts either to the adjacent traffic or ina buffered stream, both of which would otherwise be unnecessary. The majority of the watershed is offsite sheet flow that enters the existing culvert without running across the disturbed area. If the median is quickly stabilized, along with the installation and maintenance of the other BMP's proposed to treat this outfall, the sediment entering the culvert would be minimized.

Existing 8'x7' Box Culvert at Sta. 1028+50 RT (Stage 3): The only sediment runoff in this area occurs as a result of the construction of the I-75 onsite detour as well as median/inside shoulder improvements on I-75. Locating a sediment basin in this area would require a much larger disturbance of land, as well as impacts either to the adjacent traffic or ina buffered stream, both of which would otherwise be unnecessary. The majority of the watershed is offsite sheet flow that enters the existing culvert without running across the disturbed area. If the median is quickly stabilized, along with the installation and maintenance of the other BMP's proposed to treat this outfall, the sediment entering the culvert would be minimized.

USE ON CONSTRUCTION

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REVISION DATES		
02/01/13		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY

ESPC GENERAL NOTES
I-75 @ US 41 ROCKY FACE

DRAWING No. 51-004