Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: R-3421B | COUNTY: Richmond | DATE: 6/6/2019 | COMPILED BY: CALYX E&C | SHEET __ OF __ SHEETS

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +20%		ROCK	SUITABLE	UNSUIT.	TOTAL
-L- STA. 128+00.00	-L- STA. 158+00.00 *	519,741			31,000	488,741	131,790		131,790	158,148			330,593	31,000	361,593
-Y3- STA. 13+00.00	-Y3- STA. 23+16.67	2,001				2,001	468		468	562			1,439		1,439
Bridge over -L-															
-Y3- STA. 25+46.67	-Y3- STA. 29+30.00	1,444				1,444	20		20	24			1,420		1,420
-SR1REV- STA. 10+12.16	-SR1REV- STA. 17+53.73	12,790				12,790	8,613		8,613	10,336			2,454		2,454
-L- STA. 144+99.42 (-SR1- 18+56.51)	-L- STA. 160+50.00 * (-SR1- 34+98.95)	180,375		1,100		180,375	48,127		48,127	57,752			122,623	1,100	123,723
	SUBTOTAL	716,351		1,100	31,000	685,351	189,018		189,018	226,822			458,529	32,100	490,629
-L- STA. 158+00.00	-L- STA. 188+00.00 *	253,986		2,800		253,986	340,554		340,554	408,665	154,679			2,800	2,800
-SR1- 34+98.95	-SR1- 49+00.00	61,101				61,101	8,858		8,858	10,630			50,471		50,471
-Y4- STA. 9+75.26	-Y4- STA. 13+00.00	1,444				1,444	3,137		3,137	3,764	2,320				
-Y4- STA. 17+44.75	-Y4- STA. 18+20.00	788				788	69		69	83			705		705
-Y4- STA. 23+13.60	-Y4- STA. 23+89.98	681				681							681		681
	SUBTOTAL	318,000		2,800		318,000	352,618		352,618	423,142	156,999		51,857	2,800	54,657
-L- STA. 188+00.00	-L- STA. 218+00.00 *	689,670		3,300	26,500	663,170	296,425		296,425	355,710			307,460	29,800	337,260
	SUBTOTAL	689,670		3,300	26,500	663,170	296,425		296,425	355,710			307,460	29,800	337,260
-L- STA. 218+00.00	-L- STA. 248+00.00 *	891		8,200		891	1,537,939		1,537,939	1,845,527	1,844,636			8,200	8,200
	SUBTOTAL	891		8,200		891	1,537,939		1,537,939	1,845,527	1,844,636			8,200	8,200
-L- STA. 248+00.00	-L- STA. 278+00.00 *	414,095		1,300	36,500	377,595	18,395		18,395	22,074			355,521	37,800	393,321
	SUBTOTAL	414,095		1,300	36,500	377,595	18,395		18,395	22,074			355,521	37,800	393,321
-L- STA. 278+00.00	-L- STA. 301+18.32 *	402,271			44,250	358,021	72,078		72,078	86,494			271,527	44,250	315,777
Bridge over -Y5-															
-L- STA. 291+00.00 (-RAMP B- STA. 4+06.73)	-L- STA. 301+63.47 * (-RAMP B- STA. 15+03.92)	157,541				157,541							157,541		157,541
-L- STA. 294+50.00 (-RAMP C- STA. 5+06.62)	-L- STA. 301+63.47 * (-RAMP C- STA. 15+12.68)	11,093				11,093	6,810		6,810	8,172			2,921		2,921
-Y5- STA. 10+00.00	-Y5- STA. 40+00.00	28,917				28,917	46,081		46,081	55,297	26,380				
-Y5- STA. 40+00.00	-Y5- STA. 43+75.00	808				808	260		260	312			496		496
-SR6- STA. 10+00.00	SR6- STA. 20+70.07	1,188				1,188	19,496		19,496	23,395	22,207				
	SUBTOTAL	601,818			44,250	557,568	144,725		144,725	173,670	48,587		432,485	44,250	476,735
-L- STA. 302+44.58	-L- STA. 332+00.00	138,593				138,593	375,148		375,148	450,178	311,585				
-L- STA. 301+35.42 (-RAMP A- STA. 5+01.83)	-L- STA. 311+50.00 (-RAMP A- STA. 13+82.68)	5,567				5,567	41,008		41,008	49,210	43,643				
-L- STA. 301+54.93 (-RAMP D- STA. 4+32.17)	-L- STA. 311+50.00 (-RAMP D- STA. 14+70.48)	240				240	39,860		39,860	47,832	47,592				
	SUBTOTAL	144,400				144,400	456,016		456,016	547,220	402,820				
-L- STA. 332+00.00	-L- STA. 355+00.00	353,739		9,700		353,739	150,061		150,061	180,073			173,666	9,700	183,366
-Y6- STA. 11+23.34	-Y6- STA. 12+00.00	224				224	2		2	2			222		222
-Y6- STA. 16+57.57	-Y6- STA. 17+33.96	207				207	146		146	175			32		32
	SUBTOTAL	354,170		9,700		354,170	150,209		150,209	180,250			173,919	9,700	183,620
-L- STA. 355+00.00	-L- STA. 380+00.00	6,244				6,244	6,517		6,517	7,820	1,576				
	SUBTOTAL	6,244				6,244	6,517		6,517	7,820	1,576				
-L- STA. 380+00.00	-L- STA. 410+00.00	14,499				14,499	1,236		1,236	1,483			13,016		13,016
-Y9RPC- STA. 7+50.00	-Y9RPC- STA. 10+00.00	223				223							223		223
-Y9LPA- STA. 4+00.00	-Y9LPA- STA. 7+70.00	2,020				2,020	817		817	980			1,040		1,040
	SUBTOTAL	16,742				16,742	2,053		2,053	2,463			14,278		14,279
-L- STA. 410+00.00	-L- STA. 414+00.00	458				458	21		21	25			433		433
	SUBTOTAL	458				458	21		21	25			432		433
TOTAL		3,262,839		26,400	138,250	3,124,589	3,153,936		3,153,936	3,784,723	2,454,618		1,794,481	164,650	1,959,131
MATERIAL FOR SHOULDER CONSTRUCTION							11,000		11,000	13,200	13,200				
ADDITIONAL UNDERCUT				7,500			7,500		7,500	9,000	9,000			7,500	7,500
REMOVE EXISTING ROADWAY FILL		1,960			1,960									1,960	1,960
LOSS DUE TO CLEARING & GRUBBING		-70,000				-70,000					70,000				
WASTE IN LIEU OF BORROW											-1,794,481		-1,794,481		-1,794,481
PROJECT TOTAL		3,194,799		33,900	140,210	3,054,589	3,172,436		3,172,436	3,806,923	752,337			174,110	174,110
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT											37,617				
GRAND TOTAL		3,194,799		33,900	140,210	3,054,589	3,172,436		3,172,436	3,806,923	789,954			174,110	174,110
SAY		**3,195,000**									**790,000**				

*** UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN TOP 3' OF EMBANKMENT OR BACKFILL -L- 139+50 TO 145+00 (44,000 CY), -L- 159+00 TO 160+00 (14,000 CY), -L- 182+50 TO 197+00 (293,000 CY), -L- 199+50TO 203+00 (42,500 CY), -L- 247+50 TO 264+50 (183,000 CY), -L- 289+25 TO 295+00 (129,000 CY), -SR1- 16+25 TO 19+50 (8,500 CY), -Y5RPB- 0+00 TO 10+35 (70,000 CY) & -Y5RPC- 0+00 TO 7+14.72 (28,500 CY) PER GEOTECH**

PAVEMENT STRUCTURE VOLUME = 71,310 CY

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

DDE = 5,909 CY