Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: R-2707AB COUNTY: Cleveland DATE: 4/5/2013 COMPILED BY: ARCADIS

LINE	STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
			TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +15%		ROCK	SUITABLE	UNSUIT.	TOTAL
-L-	119+00	149+00	53,370				53,370	60,915		60,915	70,052	16,682				
		SUBTOTAL	53,370				53,370	60,915		60,915	70,052	16,682				
-L-	149+00	156+47.10	105				105	86,038		86,038	98,944	98,839				
		SUBTOTAL	105				105	86,038		86,038	98,944	98,839				
-L-	159+03.90	189+00	226,635				226,635	84,050		84,050	96,658			129,978		129,978
		SUBTOTAL	226,635				226,635	84,050		84,050	96,658			129,978		129,978
-L-	189+00	209+00	215,862				215,862	1,412		1,412	1,624			214,238		214,238
-Y5-	10+50	15+90.72	316				316	4,318		4,318	4,966	4,650				
-Y5-	17+72.06	24+00	18				18	10,444		10,444	12,011	11,993				
		SUBTOTAL	216,196				216,196	16,174		16,174	18,600	16,642		214,238		214,238
PROJECT R-2707AB TOTAL			496,306				496,306	247,177		247,177	284,254	132,163		344,216		344,216

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.

Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: R-2707B COUNTY: Cleveland DATE: 2/18/2014 COMPILED BY: HNTB

LINE	STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
			TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +15%		ROCK	SUITABLE	UNSUIT.	TOTAL
-L-	209+00	215+00	93,538				93,538	47		47	54			93,484		93,484
5" ADJ MATERIAL FOR GRADING								2,784		2,784	3,202	3,202				
		SUBTOTAL	93,538				93,538	2,831		2,831	3,256	3,202		93,484		93,484
-L-	215+00	252+00	40,788				40,788	561,593		561,593	645,832	605,044				
-RPB-	15+50	26+50	809				809	50,532		50,532	58,112	57,303				
-LPB-	13+00	17+50	953				953	14,577		14,577	16,764	15,811				
-RPC-	15+00	32+00	540				540	55,356		55,356	63,659	63,119				
-LPC-	12+50	18+00	17				17	19,006		19,006	21,857	21,840				
-Y2-	10+11.37	20+05.61	904				904	1,001		1,001	1,151	247				
-Y7-	14+50	35+00.00	2,851				2,851	10,955		10,955	12,598	9,747				
-DRIVE1-	10+50	14+50	484				484	26		26	30			454		454
-DRIVE3-	10+50	14+50	93				93	223		223	256	163				
5" ADJ MATERIAL FOR GRADING								13,759		13,759	15,823	15,823				
		SUBTOTAL	47,439				47,439	727,028		727,028	836,082	789,097		454		454
-L-	253+00	283+00	93,185				93,185	301,992		301,992	347,291	254,106				
5" ADJ MATERIAL FOR GRADING								10,396		10,396	11,955	11,955				
		SUBTOTAL	93,185				93,185	312,388		312,388	359,246	266,061				
-L-	283+00	313+00	507,237	6,250			500,987	68,220	6,250	60,408	75,719			431,518		431,518
5" ADJ MATERIAL FOR GRADING								10,686		10,686	12,289	12,289				
		SUBTOTAL	507,237	6,250			500,987	78,906	6,250	71,094	88,008	12,289		431,518		431,518
-L-	313+00	338+50	146,160		1,750		146,160	161,806		161,806	186,077	39,917			1,750	1,750
5" ADJ MATERIAL FOR GRADING								11,194		11,194	12,873	12,873				
		SUBTOTAL	146,160		1,750		146,160	173,000		173,000	198,950	52,790			1,750	1,750
-L-	342+50	353+00	9,316				9,316	141,972		141,972	163,268	153,952				
5" ADJ MATERIAL FOR GRADING								3,557		3,557	4,091	4,091				
		SUBTOTAL	9,316				9,316	145,529		145,529	167,358	158,042				
-L-	353+00	384+00	367,359	12,035			355,324	97,151	12,035	82,107	106,458			260,901		260,901
-DRIVE2-	10+50	14+50	199				199	71		71	82			117		117
-Y1-	11+90	27+00	2,589				2,589	7,043		7,043	8,099	5,510				
-Y1-	29+50	42+40	2,163				2,163	2,385		2,385	2,743	580				
-Y1DET-	10+00	29+50	1,468				1,468	12,051		12,051	13,859	12,391				
-RPA1-	0+00	20+50	57,196	307			56,889	2,395	307	2,011	2,620			54,576		54,576
-RPD1-	0+00	23+50	1,939				1,939	149,338		149,338	171,739	169,800				
-LPA1-	2+10	6+33.50	58,933	2,582			56,351						2,582	56,351		58,933
-LPD1-	2+41	7+65.75	16,941	353			16,588	19,659	353	19,218	22,453	5,512				
-Y17-	10+20	21+00	2,396				2,396	75,419		75,419	86,732	84,336				
-L- (BASIN)	364+00	365+50	2,050				2,050							2,050		2,050
-L- (BASIN)	379+00	381+90	5,250				5,250							5,250		5,250
5" ADJ MATERIAL FOR GRADING								8,797		8,797	10,117	10,117				
		SUBTOTAL	518,483	15,277			503,206	374,309	12,695	358,440	424,901	288,245	2,582	379,245		381,827
PROJECT R-2707B TOTAL			1,415,358	21,527	1,750		1,393,831	1,813,991	18,945	1,790,310	2,077,801	1,569,727	2,582	904,702	1,750	909,034

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.

Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: CLUSTERED R-2707AB / R-2707B COUNTY: Cleveland DATE: 2/18/2014 COMPILED BY: A. Young

LINE	STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
			TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +15%		ROCK	SUITABLE	UNSUIT.	TOTAL
	PROJECT R-2707AB TOTALS		496,306				496,306	247,177		247,177	284,254	132,163		344,216		344,216
	PROJECT R-2707B TOTALS		1,415,358	21,527	1,750		1,393,831	1,813,991	18,945	1,790,310	2,077,801	1,569,727	2,582	904,702	1,750	909,034
PROJECT SUBTOTALS			1,911,664	21,527	1,750		1,890,137	2,061,168	18,945	2,037,487	2,362,055	1,701,890	2,582	1,248,917	1,750	1,253,249
ADDITIONAL UNDERCUT PER GEOTECHNICAL					6,000			6,000		6,000	6,900	6,900			6,000	6,000
LOSS DUE TO CLEARING & GRUBBING			-29,000				-29,000					29,000				
ROCK WASTE TO REPLACE BORROW									2,582	-2,582		-2,582	-2,582			-2,582
ESTIMATED SHOULDER MATERIAL								3,600		3,600	4,140	4,140				
DETOUR REMOVAL			12,391				12,391							12,391		12,391
WASTE TO REPLACE BORROW												-1,248,917		-1,248,917		-1,248,917
ADJUST FOR ROCK SWELL										-646	-646	-646				
ELIMINATE EARTH SHRINK FACTOR											-484	-484				
PROJECT TOTALS			1,895,055	21,527	7,750		1,873,528	2,070,768	21,527	2,043,859	2,371,965	489,301		12,391	7,750	20,141
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT												24,465				
GRAND TOTAL			1,895,055		7,750							513,766			7,750	
SAY			1,896,000									514,000				

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