

# EARTHWORKS

																				SUMMARY AND BALANCES																																								
TOTAL EXCAVATION EARTH AND ROCK		ROCK EXCAVATION		EMBANKMENT						TOTAL EXCAVATION EARTH AND ROCK		ROCK EXCAVATION		EMBANKMENT						TOTAL EXCAVATION EARTH AND ROCK		ROCK EXCAVATION		EMBANKMENT						STATION TO STATION		TOT EXC. EARTH & ROCK C.Y.	ROCK EXCAV C.Y.	EMBANK C.Y.	EXCESSES		ACUMULATIVE EXCESSES																							
STATION	DIST	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	STATION	DIST	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	STATION	DIST	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	STATION TO STATION	TOT EXC. EARTH & ROCK C.Y.	ROCK EXCAV C.Y.	EMBANK C.Y.	CUT	FILL	CUT	FILL																							
FT.		S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	FT.		S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	FT.		S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	FT.																																
<b>VOLUME OF COMMON EXCAVATION AND SOLID ROCK EXCAVATION REQUIRED WITHIN THE AREAS OF NARROWING AND SIDEWALK CONSTRUCTION IS CALCULATED BY THE DEPTH OF EXCAVATION REQUIRED MULTIPLIED BY THE AREA OF EXCAVATION.</b>																																																												
<b>AREAS OF NARROWING</b>																																																												
<b>REMOVAL OF EXISTING PAVEMENT (COMMON EXCAVATION)</b>																																																												
				AREA SF	DEPTH IN	VOL CY																																																						
				US RTE 5 7+66.1 RT - VT RTE 142 113+43.9 LT=	1056	5	16																																																					
				VT RTE 142 113+14.7 RT - 113+73.0 RT=	108	5	2	* DEPTH ARE BASED ON THE BORING LOGS.																																																				
				US RTE 5 13+23.7 RT - 14+23.6 RT=	692	10	21																																																					
				US RTE 5 17+35.0 RT - 18+56.5 RT=	1035	7	23																																																					
				US RTE 5 17+36.8 LT - 17+79.1 LT=	143	7	3																																																					
					3034		64																																																					
<b>REMOVAL OF CONCRETE BASE (SOLID ROCK EXCAVATION)</b>																																																												
				AVERAGE THICKNESS OF CONCRETE =	1.0	FT (FROM BORING LOGS)																																																						
				AREA OF EXCAVATION =	3034	SF																																																						
				VOLUME OF SOLID ROCK EXCAVATION =	3034	CF	112	CY																																																				
<b>AREAS OF NO CHANGE IN WIDTH</b>																																																												
<b>REMOVAL OF SIDEWALK (COMMON EXCAVATION)</b>																																																												
				AREA SF	DEPTH IN	VOL CY																																																						
				US RTE 5 7+74.1 LT - 8+01.0 LT=	121	11	4	* DEPTH IS BASED ON 5 INCH OF SIDEWALK AND 6 INCH OF SUBBASE																																																				
				US RTE 5 7+66.0 RT - VT RTE 142 113+43.9 LT=	804	11	27																																																					
				US RTE 5 8+76.1 LT - 8+99.2 LT=	109	11	4																																																					
				VT RTE 142 113+14.7 RT - 113+73.0 RT=	219	11	7																																																					
				VT RTE 119 40+77.9 LT - US RTE 5 9+19.1 RT=	128	11	4																																																					
				US RTE 5 10+70.5 LT - FLAT ST. 51+40.7 RT=	180	11	6																																																					
				US RTE 5 10+75.8 RT - 10+91.8 RT=	131	11	4																																																					
				US RTE 5 11+16.8 RT - 11+32.9 RT=	136	11	5																																																					
				US RTE 5 13+28.3 LT - ELLIOT ST. 61+13.3 RT=	865	11	29																																																					
				FLAT ST. 51+39.4 LT - US RTE 5 11+47.4 LT=	205	11	7																																																					
				ELLIOT ST. 60+88.9 LT - US RTE 5 14+14.4 LT=	259	11	9																																																					
				US RTE 5 15+91.7 LT - VT RTE 9 71+12.9 RT=	2230	11	76																																																					
				VT RTE 9 71+04.0 LT - US RTE 5 18+50.2 LT=	244	11	8																																																					
				US RTE 5 22+42.4 LT - 22+56.7 LT=	95	11	3																																																					
				US RTE 5 22+37.2 RT - 22+58.2 RT=	152	11	5																																																					
				US RTE 5 23+61.5 LT - GROVE ST. 80+74.3 RT=	220	11	7																																																					
				US RTE 5 23+66.2 RT - 23+83.2 RT=	121	11	4																																																					
				US RTE 5 127+70.9 RT-HARRIS PL. 90+31.3 RT=	121	11	4																																																					
				GROVE ST. 80+85.7 LT -US RTE 5 127+79.3 LT=	139	11	5																																																					
				HARRIS PL. 90+26.5 LT -US RTE 5 128+18.6 RT=	40	11	1																																																					
							221																																																					
<b>AREAS OF WIDENING</b>																																																												
<b>FULL DEPTH CONSTRUCTION (COMMON EXCAVATION)</b>																																																												
				AREA SF	DEPTH IN	VOL CY																																																						
				US RTE 5 12+60 LT - US RTE 5 13+50 LT	121	31	12	* DEPTH IS BASED ON 7 INCH OF EXISTING CURB REVEAL AND 24 INCH FULL DEPTH																																																				
				US RTE 5 15+91 LT - US RTE 5 17+35 LT	162	31	16																																																					
					283		27																																																					
<b>CURB SETTING</b>																																																												
				VERTICAL GRANITE CURB USED =	350	FT																																																						
				REINFORCED CONCRETE CURB USED =	267	FT																																																						
				CURB REMOVE AND RESET =	473	FT																																																						
				TOTAL CURBING USED IN THE PROJECT =	1090	FT																																																						
<b>FROM TYPICAL SECTION</b>																																																												
				WIDTH OF EXCAVATION =	2	FT																																																						
				DEPTH OF COMMON EXCAVATION =	1	FT																																																						
				DEPTH OF SOLID ROCK EXCAVATION =	1	FT																																																						
				AREA OF EXCAVATION FOR CURB SETTING =	2180	SF																																																						
				VOLUME OF COMMON EXCAVATION =	2180	CF	81	CY																																																				
				VOLUME OF SOLID ROCK EXCAVATION =	2180	CF	81	CY																																																				
<b>TOTALS</b>																																																												
				COMMON EXCAVATION =	393	CY																																																						
				SOLID ROCK EXCAVATION =	193	CY																																																						
																										REMARKS																																		
																										EARTH AND ROCK EXCAVATION		586																																
																										SOLID ROCK EXCAVATION		193																																
																										EARTH EXCAVATION		393																																
																										PLANIMETERED FILL																																		
																										LESS FACTORED SOLID ROCK																																		
																										LESS DISPLACEMENT OF ANY LARGE STRUCTURES																																		
																										NET PLANIMETERED FILL																																		
																										FACTOR																																		
																										PLANIMETERED FILL INCLUDING FACTOR																																		
																										MATERIALS AVAILABLE FOR FILLS																																		
																										EARTH EXCAVATION		393																																
																										CHANNEL EXCAVATION																																		
																										UNDERDRAIN EXCAVATION																																		
																										STRUCTURE EXCAVATION																																		
																										TOTAL MATERIAL AVAILABLE FOR FILL		393																																
																										TOTAL FILL INCLUDING FACTOR																																		
																										TOTAL MATERIAL FOR FILL																																		
																										BORROW																																		
																										EXCESS EXCAVATION		393																																
																										PROJECT NAME:		BRATTLEBORO																																
																										PROJECT NUMBER:		STP 2000 (24)																																
																										FILE NAME:		z08d044earthwork.xls																																
																										PROJECT LEADER:		K. UPMAL																																
																										DESIGNED BY:		A. ACHARYA																																
																										EARTHWORK SHEET		PLOT DATE:		12/7/2009																														
																												DRAWN BY:		A. ACHARYA																														
																												CHECKED BY:		D. SPENCER																														
																												SHEET		92 OF 163																														