STATE OF VERMONT
AGENCY OF TRANSPORTATION

EARTHWORKS

Metric

STATION km + m	DIST m	TOTAL EXCAVATION EARTH AND ROCK AREA m^2	TOTAL EXCAVATION EARTH AND ROCK VOLUME m^3	ROCK EXCAVATION AREA m^2	ROCK EXCAVATION VOLUME m^3	EMBANKMENT AREA m^2	EMBANKMENT VOLUME m^3	AREA m^2	VOLUME m^3
NB Mainline									
8+529									
	11						4290	CUT	0
8+540						780		ROCK	0
	20						12738	R.FAC	0.495
8+560						494		FILL	17028
								F.FAC	1.15
Bridge								EX. F	-19582
8+680		6				120			
	20		60				2000		
8+700						80			
	20		110				830		
8+720		11				3			
	20		750				30	CUT	7580
8+740		64						ROCK	0
	20		1700					R.FAC	0.495
8+760		106						FILL	2860
	20		2310					F.FAC	1.15
8+780		125						EX. C	4291
	20		2650						
8+800		140							
	20		3190						
8+820		179							
	20		4470						
8+840		268							
	20		6610						
8+860		393							
	20		9420						
8+880		549							
	20		14600					CUT	167480
8+900		911						ROCK	0
	20		20910					R.FAC	0.495
8+920		1180						FILL	0
	20		23810					F.FAC	1.15
8+940		1201						EX. C	167480
	20		25530						
8+960		1352							
	20		28630						
8+980		1511							
	20		30310						
9+000		1520							
	20		29990						
9+020		1479							
	20		27610						
9+040		1282							
	20		16040						
9+060		322							
	20		5790						
9+080		257							
	20		3020					CUT	84530
9+100		45						ROCK	0
	20		640					R.FAC	0.495
9+120		19						FILL	0
	20		350					F.FAC	1.15
9+140		16						EX. C	84530
	20		300						
9+160		14							
	20		320						
9+180		18							
	20		470						
9+200		29							
	20		630						
9+220		34							
	20		1120						
9+240		78							
	20		2730						
9+260		195							
	20		4040						
9+280		209							
	20		3920					CUT	26590
9+300		183						ROCK	0
	20		3360					R.FAC	0.495
9+320		153						FILL	0
	20		2830					F.FAC	1.15
9+340		130						EX. C	26590
	20		2530						
9+360		123							
	20		2560						
9+380		133							
	20		2870						
9+400		154							
	20		3320						
9+420		178							
	20		3720						
9+440		194							
	20		3990						
9+460		205							
	20		3820						
9+480		177							
	20		3040					CUT	19270
9+500		127						ROCK	0
	20		1290				50	R.FAC	0.495

STATION km + m	DIST m	TOTAL EXCAVATION EARTH AND ROCK AREA m^2	TOTAL EXCAVATION EARTH AND ROCK VOLUME m^3	ROCK EXCAVATION AREA m^2	ROCK EXCAVATION VOLUME m^3	EMBANKMENT AREA m^2	EMBANKMENT VOLUME m^3	AREA m^2	VOLUME m^3
9+520		2				5		FILL	420
	20		30				110	F.FAC	1.15
9+540		1				6		EX. C	18787
	20		20				120		
9+560		1				6			
	20		10				90		
9+580						3			
	20		30				50		
9+600		3				2			
	20		50				30		
9+620		2				1			
	20		50				20	CUT	167
9+640		3				1		ROCK	0
	20		50				30	R.FAC	0.495
9+660		2				2		FILL	97
	17		17				17	F.FAC	1.15
9+677		0				0		EX. C	55
Crossover									
0+857						0			
	4						18		
0+861						9			
	19						152		
0+880						7			
	20						110		
0+900						4			
	20						80	CUT	0
0+920						4		ROCK	0
	20						100	R.FAC	0.495
0+940						6		FILL	830
	20						100	F.FAC	1.15
0+960						4		EX. F	-955
	20						120		
0+980						8			
	20						150		
1+000						7			
	20						110		
1+020						4			
	20		2250				40		
1+040		225							
	20		5130						
1+060		288							
	20		5890						
1+080		301							
	20		5640					CUT	35935
1+100		263						ROCK	0
	20		4770					R.FAC	0.495
1+120		214						FILL	240
	20		3917					F.FAC	1.15
1+140		178						EX. C	35659
	20		3184						
1+160		141							
	20		2700				30		
1+180		129				3			
	20		2454				60		
1+200		116				3			
	20		2400				60		
1+220		124				3			
	20		2626				30		
1+240		139							
	20		2980						
1+260		159							
	20		3124						
1+280		153							
	20		2120					CUT	16110
1+300		59						ROCK	0
	20		930					R.FAC	0.495
1+320		34						FILL	90
	20		590					F.FAC	1.15
1+340		25						EX. C	16007
	20		470						
1+360		22							
	20		430						
1+380		21							
	20		440						
1+400		23							
	20		420					CUT	624
1+420		19						ROCK	0
	11		204					R.FAC	0.495
1+431		18						FILL	0
								F.FAC	1.15
								EX. C	624
East Road									
								CUT	240
0+960								ROCK	0
	20		71					R.FAC	0.495
0+980		7						FILL	0
	20		169					F.FAC	1.15
1+000		10						EX. C	240
	20		141						
1+020		4							

STATION km + m	DIST m	TOTAL EXCAVATION EARTH AND ROCK AREA m^2	TOTAL EXCAVATION EARTH AND ROCK VOLUME m^3	ROCK EXCAVATION AREA m^2	ROCK EXCAVATION VOLUME m^3	EMBANKMENT AREA m^2	EMBANKMENT VOLUME m^3	AREA m^2	VOLUME m^3
	20		65						
1+040		2							
	20		22				142		
1+060						14			
	20						532	CUT	228
1+080						39		ROCK	0
	20						953	R.FAC	0.495
1+100						56		FILL	4803
	20						1410	F.FAC	1.15
1+120						85		EX. F	-5295
	20						1765		
1+140						92			
BRIDGE									
1+227									
	13		26				51		
1+240		4				8			
	20		155				89		
1+260		12				1			
	20		261				50	CUT	979
1+280		15				4		ROCK	0
	20		254				134	R.FAC	0.495
1+300		11				9		FILL	509
	20		202				143	F.FAC	1.15
1+320		9				5		EX. C	394
	17		81				42		
1+337									
Ramp G									
1+340		11							
	20		260					CUT	1350
1+360		15						ROCK	0
	20		380					R.FAC	0.495
1+380		23						FILL	0
	20		710					F.FAC	1.15
1+400		48						EX. C	1350
	20		1090						
1+420		61							
	20		970						
1+440		36							
	20		580						
1+460		22							
	20		370						
1+480		15							
	20		600					CUT	13761
1+500		45						ROCK	0
	20		1330					R.FAC	0.495
1+520		88						FILL	0
	20		1996					F.FAC	1.15
1+540		112						EX. C	13761
	20		2246						
1+560		113							
	20		2290						
1+580		116							
	20		2290						
1+600		113							
	20		2110						
1+620		98							
	20		1410				10		
1+640		43				1		CUT	4260
	20		440				50	ROCK	0
1+660		1				4		R.FAC	0.495
	20		80				120	FILL	260
1+680		7				8		F.FAC	1.15
	20		220				80	EX. C	3961
1+700		15							
SI Fill									
1+000						0			
	20						2271		
1+020						227			
	20						10527		
1+040						826			
	20						17975		
1+060						972			
	20						19393		
1+080						967			
	20						17053	CUT	0
1+100						738		ROCK	0
	20						12244	R.FAC	0.495
1+120						487		FILL	110122
	20						8941	F.FAC	1.15
1+140						408		EX. F	-126641
	20						7706		
1+160						363			
	20						7143		
1+180						351			
	20						6869		
1+200						335			

SUMMARY AND BALANCES

STATION TO STATION km + m		TOT EXC. EARTH & ROCK m^3	ROCK EXCAV m^3	EMBANK m^3	EXCESSES CUT	EXCESSES FILL	ACUMULATIVE EXCESSES CUT	ACUMULATIVE EXCESSES FILL
NB MAINLINE								
8+529	8+560			17,028		-19,582		-19,582
8+680	8+800	7,580		2,860	4,291			-15,291
8+800	9+000	167,480			167,480		152,189	
9+000	9+200	84,530			84,530		236,719	
9+200	9+400	26,590			26,590		263,309	
9+400	9+600	19,270		420	18,787		282,096	
9+600	9+677	167		97	55		282,151	
CROSSOVER								
0+857	1+000			830		-955	281,196	
1+000	1+200	35,935		240	35,659		316,855	
1+200	1+400	16,110		90	16,007		332,862	
1+400	1+431	624			624		333,486	
EAST ROAD								
0+960	1+000	240			240		333,726	
1+000	1+140	228		4,803		-5,295	328,431	
1+227	1+337	979		509	394		328,825	
Ramp G								
1+340	1+400	1,350			1,350		330,175	
1+400	1+600	13,761			13,761		343,936	
1+600	1+700	4,260		260	3,961		347,897	

REMARKS

EARTH AND ROCK EXCAVATION
SOLID ROCK EXCAVATION
EARTH EXCAVATION

PLANIMETERED FILL
LESS FACTORED SOLID ROCK (1.30)
LESS DISPLACEMENT OF ANY LARGE STRUCTURES
NET PLANIMETERED FILL
FACTOR (0.15)
PLANIMETERED FILL INCLUDING FACTOR

MATERIALS AVAILABLE FOR FILLS
EARTH EXCAVATION
CHANNEL EXCAVATION (UNCLASSIFIED)
UNDERDRAIN EXCAVATION
STRUCTURE EXCAVATION

TOTAL MATERIAL AVAILABLE FOR FILL

TOTAL FILL INCLUDING FACTOR
TOTAL MATERIAL FOR FILL
BORROW
EXCESS EXCAVATION

PROJECT NAME: **BENNINGTON**
PROJECT NUMBER: **AC NH 019-1(53)**

FILE NAME: zd307c3ew.xls
PROJECT LEADER: GREG EDWARDS
DESIGNED BY: MARC FOISY
EARTHWORK SHEET #1

PLOT DATE: 3/13/2007
DRAWN BY: STANTEC
CHECKED BY: GARY SANTY
SHEET 23 OF 577