STATE OF VERMONT
AGENCY OF TRANSPORTATION

EARTHWORKS

STATION	DIST FT.	TOTAL EXCAVATION EARTH AND ROCK AREA S.F.	TOTAL EXCAVATION EARTH AND ROCK VOLUME C.Y.	ROCK EXCAVATION AREA S.F.	ROCK EXCAVATION VOLUME C.Y.	EMBANKMENT AREA S.F.	EMBANKMENT VOLUME C.Y.
COMMON EXCAVATION							
4+00	0	0.00	0.00	0	0	0.03	0.0
4+50	50	0.51	0.00	0	0	0.12	0.0
5+00	50	0.00	0.00	0	0	0.05	0.0
5+50	50	0.00	0.00	0	0	0.05	0.0
6+00	50	0.00	0.00	0	0	0.06	0.0
6+50	50	0.00	0.00	0	0	0.63	1.0
7+00	50	0.00	0.00	0	0	0.06	1.0
14+00	50	0.00	0.00	0	0	0.19	0.0
14+50	50	0.00	0.00	0	0	0.40	1.0
18+75	25	1.09	1.0	0	0	0.00	0.0
19+00	25	0.42	1.0	0	0	0.43	0.0
19+50	50	0.00	0.0	0	0	0.03	0.0
20+00	50	0.00	0.0	0	0	0.00	0.0
SLOPE STABILITY AREA EXCAVATION							
9+50	0	0.00	0.0	0	0		
9+75	25	147.00	68.3	29	14		
10+00	25	505.00	302.0	101	60		
10+25	25	775.00	592.5	155	119		
10+50	25	929.00	788.7	186	158		
10+75	25	339.00	586.9	68	117		
11+00	25	96.00	201.5	19	40		
11+25	25	0.00	44.6	0	9		
11+50	25	0.00	0.0	0	0		
11+75	25	82.00	37.9	16	8		
12+00	25	69.00	69.9	14	14		
12+25	25	68.00	63.4	14	13		
12+50	25	114.00	84.1	23	17		
12+75	25	59.00	80.1	12	16		
13+00	25	0.00	27.4	0	6		
CHANNEL EXCAVATION							
4+00	0	0.00	0.0	0	0		
4+50	50	0.00	0.0	0	0		
5+00	50	0.00	0.0	0	0		
5+50	50	0.00	0.0	0	0		
6+00	50	44.64	41.0	20	19		
6+50	50	56.08	93.0	44	60		
7+00	50	32.51	82.0	8	48		
7+50	50	43.74	71.0	0	7		
8+00	50	41.32	79.0	0	0		
8+50	50	39.35	75.0	0	0		
9+00	50	39.62	73.0	0	0		

CUT	2
ROCK	0
R.FAC	.300
FILL	3
F.FAC	1.00
EX. F	1

CUT	2947
ROCK	590
R.FAC	.300
FILL	0
F.FAC	1.00
EX. C	3124

STATION	DIST FT.	TOTAL EXCAVATION EARTH AND ROCK AREA S.F.	TOTAL EXCAVATION EARTH AND ROCK VOLUME C.Y.	ROCK EXCAVATION AREA S.F.	ROCK EXCAVATION VOLUME C.Y.	EMBANKMENT AREA S.F.	EMBANKMENT VOLUME C.Y.
9+50	50	49.81	83.0	0	0		
10+00	50	40.62	84.0	0	0		
10+50	50	25.73	61.0	0	0		
11+00	50	43.96	65.0	0	0		
11+50	50	63.33	99.0	0	0		
12+00	50	63.01	115.0	0	0		
12+50	50	77.12	128.0	0	0		
13+00	50	68.06	134.0	0	0		
13+50	50	73.70	131.0	0	0		
14+00	50	81.04	143.0	0	0		
14+50	50	56.26	127.0	0	0		
15+00	50	31.48	81.0	16	15		
15+50	50	38.17	64.0	0	15		
16+00	50	39.27	72.0	0	0		
16+25	25	45.31	39.0	16	7		
16+50	25	70.44	54.0	42	27		
16+75	25	91.38	75.0	68	51		
17+00	25	183.57	127.0	164	108		
17+25	25	102.16	132.0	86	116		
17+50	25	45.49	68.0	25	52		
17+75	25	42.45	41.0	14	18		
18+00	25	38.86	38.0	0	6		
18+25	25	35.31	34.0	0	0		
18+50	25	59.86	44.0	25	12		
18+75	25	7.41	31.0	7	15		
19+00	25	0.00	3.0	0	3		
19+50	50	0.00	0.0	0	0		
20+00	50	0.00	0.0	0	0		

CUT	2587
ROCK	579
R.FAC	.300
FILL	0
F.FAC	1.00
EX. C	2761

TRENCH EXCAVATION

STATION	DIST FT.	TOTAL EXCAVATION EARTH AND ROCK AREA S.F.	TOTAL EXCAVATION EARTH AND ROCK VOLUME C.Y.	ROCK EXCAVATION AREA S.F.	ROCK EXCAVATION VOLUME C.Y.	EMBANKMENT AREA S.F.	EMBANKMENT VOLUME C.Y.
4+00	0	27.18	0.0	0	0		
4+50	50	12.38	37.0	0	0		
5+00	50	11.67	22.0	0	0		
5+50	50	17.16	27.0	0	0		
6+00	50	11.98	27.0	0	0		
6+50	50	7.37	18.0	0	0		
7+00	50	6.41	13.0	0	0		
7+50	50	6.35	12.0	0	0		
8+00	50	11.80	17.0	0	0		
8+50	50	10.96	21.0	0	0		
9+00	50	14.98	24.0	0	0		
9+50	50	14.80	28.0	0	0		
10+00	50	20.37	33.0	0	0		
10+50	50	21.44	39.0	0	0		

STATION	DIST FT.	TOTAL EXCAVATION EARTH AND ROCK AREA S.F.	TOTAL EXCAVATION EARTH AND ROCK VOLUME C.Y.	ROCK EXCAVATION AREA S.F.	ROCK EXCAVATION VOLUME C.Y.	EMBANKMENT AREA S.F.	EMBANKMENT VOLUME C.Y.
11+00	50	18.30	37.0	0	0		
11+50	50	26.00	41.0	0	0		
12+00	50	20.19	43.0	0	0		
12+50	50	26.77	43.0	0	0		
13+00	50	13.42	37.0	0	0		
13+50	50	19.45	30.0	0	0		
14+00	50	23.21	40.0	0	0		
14+50	50	26.15	46.0	0	0		
15+00	50	32.87	55.0	0	0		
15+50	50	26.20	55.0	0	0		
16+00	50	25.77	48.0	0	0		
16+25	25	19.07	21.0	0	0		
16+50	25	15.28	16.0	0	0		
16+75	25	13.39	13.0	0	0		
17+00	25	18.67	15.0	0	0		
17+25	25	22.74	19.0	0	0		
17+50	25	24.27	22.0	0	0		
17+75	25	30.03	25.0	0	0		
18+00	25	27.74	27.0	0	0		
18+25	25	24.86	24.0	0	0		
18+50	25	20.39	21.0	0	0		
18+75	25	22.19	20.0	0	0		
19+00	25	11.29	16.0	0	0		
19+50	50	20.82	30.0	0	0		
20+00	50	0.00	19.0	0	0		

CUT	1081
ROCK	0
R.FAC	.300
FILL	0
F.FAC	1.00
EX. C	1081

SUMMARY AND BALANCES

STATION TO STATION		TOT EXC. EARTH & ROCK C.Y.	ROCK EXCAV C.Y.	EMBANK C.Y.	EXCESSES CUT	EXCESSES FILL	ACUMULATIVE EXCESSES CUT	ACUMULATIVE EXCESSES FILL
COMMON EXCAVATION								
(ROADWAY)								
4+00	7+00	0	0	2		2		2
14+00	14+50	0	0	1		1		3
18+75	20+00	2	0	0	2			1
(SLOPE STABILITY AREAS)							3123	
		2947	590		3124			
	TOTAL=	2949	590	3	3126	3	3123	
CHANNEL EXCAVATION								
4+00	5+25	0	0	0	0.0		3123.0	
5+50	10+75	742	134	0	782.2		3905.2	
11+00	16+50	1252	64	0	1271.2		5176.4	
16+75	20+00	593	381	0	707.3		5883.7	
	TOTAL=	2587	579	0	2760.7			
TRENCH EXCAVATION								
(DRAINAGE CHANNEL)								
4+00	5+25	59	0	0	59.0		5942.7	
5+50	10+75	259	0	0	259.0		6201.7	
11+00	16+50	512	0	0	512.0		6713.7	
16+75	20+00	251	0	0	251.0		6964.7	
UNDERDRAIN TRENCH EXCAVATION (ROADWAY)								
4+00	20+00	248.3	37.6	0	259.6		7224.3	
TRENCH EXCAVATION (PROPOSED DRAINAGE PIPE)								
17+25	17+50	20.4	1.9	0	20.6		7244.9	
TRENCH EXCAVATION (PROPOSED DRAINAGE STRUCTURES)								
4+00	20+00	14.0	2.7	0	15.0		7259.9	
TRENCH EXCAVATION (EXISTING DRAINAGE STRUCTURES)								
4+00	20+00	0.0	17.8	0	6.0		7265.9	
UNDERDRAIN TRENCH EXCAVATION (SLOPE)								
9+50	13+00	0.0	55.7	0	16.8		7282.7	
TOTAL TRENCH EXCAVATION								
	TOTAL=	1363.7	115.6	0	1399.0			
TOTAL EXCAVATION								
	SUBTOTAL	6899.7	1284.6	3.0	7285.7	3	7282.7	
	ROUND =	0.3	0.4	0.0	0.3	0	0.3	
	TOTAL=	6900.0	1285.0	3.0	7286.0	3	7283.0	
Use Case II Factor C+0.3R-F								

REMARKS

EARTH AND ROCK EXCAVATION	3126
SOLID ROCK EXCAVATION	590
EARTH EXCAVATION	2949
PLANIMETERED FILL	3
LESS FACTORED SOLID ROCK	386
LESS DISPLACEMENT OF ANY LARGE STRUCTURES	0
NET PLANIMETERED FILL	-383
FACTOR	0
PLANIMETERED FILL INCLUDING FACTOR	-383
MATERIALS AVAILABLE FOR FILLS	
EARTH EXCAVATION	2949
CHANNEL EXCAVATION	2587
TRENCH EXCAVATION	1363.7
ROUNDING	0.3
TOTAL MATERIAL AVAILABLE FOR FILL	6900
TOTAL FILL INCLUDING FACTOR	383
TOTAL MATERIAL FOR FILL	6900
BORROW	0
EXCESS EXCAVATION	7283

McFarland Johnson

PROJECT NAME: PLYMOUTH
PROJECT NUMBER: ER 0149(6)

FILE NAME: zl3c318ewl.dgn
PROJECT LEADER: J. SANTACRUCE
DESIGNED BY: J. SANTACRUCE
EARTHWORK SHEET

PLOT DATE: 5/17/2016
DRAWN BY: J. SANTACRUCE
CHECKED BY: B. COLBURN
SHEET 15 OF 68