

GRADING REPORT

COMPUTED BY: Aubin Canning
 CHECKED BY:
 FEDERAL PROJECT NO: BR-STP-107(28)
 ROUTE NO. OR STREET: SR 107

SHEET 1 OF 9
 STATE NO.: 86006-3235-94
 PIN: 124631.00
 COUNTY: Unicoi

Mainline: SR 107 (Unicoi Drive)/173 (Erwin Hwy)

Station	Material Name	End Areas (sq. ft.)	Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Mult Factor	Mass Ordinate	Accum Unadj Vol (cu. yd.)	Accum Adj Vol (cu. yd.)
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207+75.00 EARTH

Excavation	0	0	0	0.95		0	0
Fill	0	0	0	1.00	0	0	0

208+00.00 EARTH

Excavation	0	0	0	0.95		0	0
Fill	4	2	2	1.00	-2	2	2

TOPSOIL

Excavation	1	0	0	1.00		0	0
Fill	0	0	0	1.00	-2	0	0

Mass ordinate for TOPSOIL = 0

208+50.00 EARTH

Excavation	46	43	40	0.95		43	40
Fill	0	4	4	1.00	34	6	6

TOPSOIL

Excavation	2	3	3	1.00		3	3
Fill	0	0	0	1.00	34	0	0

Mass ordinate for TOPSOIL = 3

209+00.00 EARTH

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Excavation	50	89	84	0.95		132	124
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Fill	46	43	43	1.00	75	49	49
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TOPSOIL

Excavation	7	9	9	1.00		12	12
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Fill	0	0	0	1.00	75	0	0
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Mass ordinate for TOPSOIL = 12

209+39.09 EARTH

Excavation	63	82	78	0.95		214	202
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Fill	53	72	72	1.00	81	121	121
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TOPSOIL

Excavation	8	11	11	1.00		23	23
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Fill	0	0	0	1.00	81	0	0
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Mass ordinate for TOPSOIL = 23

209+50.00 EARTH

Excavation	68	26	25	0.95		240	227
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Fill	51	21	21	1.00	85	142	142
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TOPSOIL

Excavation	7	3	3	1.00		26	26
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Fill	0	0	0	1.00	85	0	0
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Mass ordinate for TOPSOIL = 26

209+58.27 EARTH

Excavation	70	21	20	0.95		261	247
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Fill	45	15	15	1.00	90	157	157
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TOPSOIL

Excavation	7	3	3	1.00		29	29
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Fill	0	0	0	1.00	90	0	0
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Mass ordinate for TOPSOIL = 29

210+50.00 EARTH

Excavation	3	124	118	0.95		385	365
Fill	0	76	76	1.00	132	233	233

TOPSOIL

Excavation	1	13	13	1.00		42	42
Fill	0	0	0	1.00	132	0	0

Mass ordinate for TOPSOIL = 42

211+00.00 EARTH

Excavation	9	11	11	0.95		396	376
Fill	0	0	0	1.00	143	233	233

TOPSOIL

Excavation	3	4	4	1.00		46	46
Fill	0	0	0	1.00	143	0	0

Mass ordinate for TOPSOIL = 46

211+40.00 EARTH

Excavation	0	7	6	0.95		403	382
Fill	170	126	126	1.00	23	359	359

TOPSOIL

Excavation	16	14	14	1.00		60	60
Fill	0	0	0	1.00	23	0	0

Mass ordinate for TOPSOIL = 60

211+50.00 EARTH

Excavation	0	0	0	0.95		403	382
Fill	162	61	61	1.00	-38	420	420

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TOPSOIL

Excavation	16	6	6	1.00		66	66
Fill	0	0	0	1.00	-38	0	0

Mass ordinate for TOPSOIL = 66

212+00.00 EARTH

Excavation	113	105	99	0.95		508	481
Fill	23	171	171	1.00	-110	591	591

TOPSOIL

Excavation	0	15	15	1.00		81	81
Fill	0	0	0	1.00	-110	0	0

Mass ordinate for TOPSOIL = 81

212+50.00 EARTH

Excavation	121	217	206	0.95		725	687
Fill	0	21	21	1.00	75	612	612

TOPSOIL

Excavation	2	2	2	1.00		83	83
Fill	0	0	0	1.00	75	0	0

Mass ordinate for TOPSOIL = 83

213+00.00 EARTH

Excavation	103	207	197	0.95		932	884
Fill	0	0	0	1.00	272	612	612

TOPSOIL

Excavation	0	2	2	1.00		85	85
Fill	0	0	0	1.00	272	0	0

Mass ordinate for TOPSOIL = 85

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213+50.00 EARTH

Excavation	47	139	132	0.95		1071	1016
Fill	0	0	0	1.00	404	612	612

214+00.00 EARTH

Excavation	17	59	56	0.95		1130	1072
Fill	1	1	1	1.00	459	613	613

214+50.00 EARTH

Excavation	8	23	22	0.95		1153	1094
Fill	2	3	3	1.00	478	616	616

215+00.00 EARTH

Excavation	15	21	20	0.95		1174	1114
Fill	2	4	4	1.00	494	620	620

215+50.00 EARTH

Excavation	29	41	39	0.95		1215	1153
Fill	2	4	4	1.00	529	624	624

216+00.00 EARTH

Excavation	52	75	71	0.95		1290	1224
Fill	0	2	2	1.00	598	626	626

G R A N D S U M M A R Y T O T A L S

Material Name	Unadjusted Volumes (cu. yd.)	Adjusted Volumes (cu. yd.)	Mult Factor
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 EARTH

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Excavation	1290	1224	0.95
Fill	626	626	1.00

TOPSOIL

Excavation	85	85	1.00
Fill	0	0	1.00

S P L I T S U M M A R Y T O T A L S

	XS Quant	XS Quant	Add/Sub Quant	Add/Sub Quant	
Material Name	Unadjusted	Adjusted	Unadjusted	Adjusted	Mult
	Volume	Volume	Volume	Volume	Factor
	(cu. yd.)	(cu. yd.)	(cu. yd.)	(cu. yd.)	

EARTH

Excavation	1290	1224	0	0	0.95
Fill	626	626	0	0	1.00

TOPSOIL

Excavation	85	85	0	0	1.00
Fill	0	0	0	0	1.00

B A L A N C E P O I N T S U M M A R Y

Material Name	Cumulative	Incremental	Mult
	Unadjusted	Adjusted	Unadjusted
	Adjusted	Unadjusted	Adjusted
	Volumes	Volumes	Volumes
	(cu. yd.)	(cu. yd.)	(cu. yd.)

Station = 208+02.78

EARTH

Excavation	2	2	2	2	0.95
Fill	2	2	2	2	1.00

TOPSOIL

Excavation	0	0	0	0	1.00
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COUNTY: Unicoi

Fill	0	0	0	0	1.00
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Station = 211+43.77

EARTH

Excavation	402	382	400	380	0.95
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Fill	382	382	380	380	1.00
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TOPSOIL

Excavation	62	62	62	62	1.00
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Fill	0	0	0	0	1.00
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Station = 212+29.73

EARTH

Excavation	635	603	233	221	0.95
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Fill	603	603	221	221	1.00
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TOPSOIL

Excavation	82	82	20	20	1.00
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Fill	0	0	0	0	1.00
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Side Road: SR 107

	Material Name	End Areas	Unadjusted Volumes	Adjusted Volumes	Mult Factor	Mass Ordinate	Accum Unadj Vol	Accum Adj Vol
Station		(sq. ft.)	(cu. yd.)	(cu. yd.)			(cu. yd.)	(cu. yd.)

300+12.00 EARTH

Excavation	148	0	0	0.85	0	0
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Fill	0	0	0	1.00	0	0	0
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300+32.14 EARTH

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Excavation	48	73	62	0.85		73	62
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Fill	8	3	3	1.00	59	3	3
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300+50.00 EARTH

Excavation	62	36	31	0.85		109	93
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Fill	5	4	4	1.00	86	7	7
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300+57.14 EARTH

Excavation	64	17	14	0.85		126	107
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Fill	4	1	1	1.00	99	8	8
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300+82.13 EARTH

Excavation	53	54	46	0.85		180	153
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Fill	5	4	4	1.00	141	12	12
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300+90.47 EARTH

Excavation	48	16	13	0.85		196	167
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Fill	4	1	1	1.00	153	13	13
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301+00.00 EARTH

Excavation	17	11	10	0.85		207	176
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Fill	5	2	2	1.00	161	15	15
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301+23.81 EARTH

Excavation	17	15	13	0.85		222	189
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Fill	3	4	4	1.00	170	19	19
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301+50.00 EARTH

Excavation	16	16	14	0.85		238	202
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Fill	3	3	3	1.00	181	22	22
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301+57.14 EARTH

Excavation	14	4	3	0.85		242	206
Fill	4	1	1	1.00	183	23	23

302+00.00 EARTH

Excavation	0	11	9	0.85		253	215
Fill	1	4	4	1.00	188	27	27

G R A N D S U M M A R Y T O T A L S

Material Name	Unadjusted	Adjusted	Mult
	Volumes	Volumes	Factor
	(cu. yd.)	(cu. yd.)	

EARTH

Excavation	253	215	0.85
Fill	27	27	1.00

S P L I T S U M M A R Y T O T A L S

	XS Quant	XS Quant	Add/Sub Quant	Add/Sub Quant	
Material Name	Unadjusted	Adjusted	Unadjusted	Adjusted	Mult
	Volume	Volume	Volume	Volume	Factor
	(cu. yd.)	(cu. yd.)	(cu. yd.)	(cu. yd.)	

EARTH

Excavation	253	215	0	0	0.85
Fill	27	27	0	0	1.00