# APPENDIX G

Exercise 15

Yardage Factor:

Earthwork cubic yardage (c.y.):

$[(A1 + A2)/2 \times L] / 27$

$[(A1 + A2) \times L] / 54$

A1, A2 (sq. ft.)

L (ft.) distance between stations

27 cu. ft./cu.yd.

(A1+A2) x Yardage Factor

Example, L=50

Y.F. = 50/54 = .926

# GRADING QUANTITIES

COMPUTED BY _____   SHEET _____

CHECKED BY _____   PROJECT _____   HIGHWAY ___SR 95___   COUNTY ___ROANE___

| STATION | YDGE. FACTOR | END AREA | | GRADE POINT | ROCK CLASS | CUBIC YARDS | | BALANCES | |
|---|---|---|---|---|---|---|---|---|---|
| | | EXC. | EMB. | | | EXC. | EMB. | EXC. | EMB. |
| 87+00 | .926 | 374 | 98 | | | | | | |
| | | | | | | 630 | 143 | | |
| +50 | 1 | 306 | 56 | | | | | | |
| | | | | | | 439 | 144 | 1069 | 287 |
| 88+00 | | 168 | 100 | | | | | | |
| | | | | | | 229 | 331 | 1298 | 618 |
| +50 | | 79 | 257 | | | | | | |
| | | | | | | 122 | 582 | 1420 | 1200 |
| 89+00 | | 53 | 372 | | | | | | |
| | | | | | | 91 | 903 | 1511 | 2103 |
| +50 | | 45 | 603 | | | | | | |
| | | | | | | 75 | 1261 | 1586 | 3364 |
| 90+00 | | 36 | 759 | | | | | | |
| | | | | | | 33 | 2282 | 1619 | 5646 |
| +50 | | 0 | 1705 | | | | | | |
| | | | | | | 0 | 2670 | 1619 | 8316 |
| 91+00 | | 0 | 1178 | | | | | | |
| | | | | | | 13 | 1488 | 1632 | 9804 |
| 0 | | 14 | 429 | | | | | | |
| | | | | | | 28 | 528 | 1660 | 10332 |
| 92+00 | | 16 | 141 | | | | | | |
| | | | | | | 31 | 391 | 1691 | 10723 |
| +50 | | 17 | 281 | | | | | | |
| | | | | | | 16 | 673 | 1707 | 11396 |
| 93+00 | | 0 | 446 | | | | | | |
| | | | | | | 0 | 920 | 1707 | 12316 |
| +50 | | 0 | 548 | | | | | | |
| | | | | | | 0 | 1004 | 1707 | 13320 |
| 94+00 | | 0 | 536 | | | | | | |
| | | | | | | 0 | 986 | 1707 | 14306 |
| +50 | | 0 | 529 | | | | | | |
| | | | | | | 1 | 924 | 1708 | 15320 |
| 95+00 | | 1 | 469 | | | | | | |
| | | | | | | | | X .85 | |
| | | | | | | | | 1452 | |

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# SEEDING ~~GRADING~~ QUANTITIES

OMPUTED BY _____   SHEET _____

HECKED BY _____ PROJECT _____ HIGHWAY _____ COUNTY _____

| ST ON | YDGE. FACTOR | Slope Length END AREA | | GRADE POINT | ROCK CLASS | Area CUBIC YARDS | | BALANCES | |
|---|---|---|---|---|---|---|---|---|---|
| | | L ~~EXC.~~ | R ~~EMB.~~ | | | L ~~EXC.~~ | R ~~EMB.~~ | EXC. | EMB. |
| '87+00 | 25 | 33 | 52 | | | | | | |
| | | | | | | 1625 | 2550 | | |
| +50 | | 32 | 50 | | | | | | |
| | | | | | | 1525 | 2200 | | |
| 88+00 | | 29 | 38 | | | | | | |
| | | | | | | 1400 | 1575 | | |
| +50 | | 27 | 25 | | | | | | |
| | | | | | | 1000 | 1325 | | |
| 89+00 | | 13 | 28 | | | | | | |
| | | | | | | 725 | 1700 | | |
| +50 | | 16 | 40 | | | | | | |
| | | | | | | 850 | 2200 | | |
| 90+00 | | 18 | 48 | | | | | | |
| | | | | | | 1025 | 2475 | | |
| +50 | | 23 | 51 | | | | | | |
| | | | | | | 1500 | 2075 | | |
| '91+00 | | 37 | 32 | | | | | | |
| | | | | | | 1400 | 1700 | | |
| 0 | | 19 | 36 | | | | | | |
| | | | | | | 925 | 1400 | | |
| 92+00 | | 18 | 20 | | | | | | |
| | | | | | | 11975 | 19200 | | |

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