12/06/07

COMPUTED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| 17BP.8.R.123 | 3B-1 |

## SUMMARY OF EARTHWORK

*IN CUBIC YARDS*

| STATION | STATION | UNCL. EXCAV. | EMBANK. +% | BORROW | WASTE |
|---|---|---|---|---|---|
| –L– 12+00 | 15+40.87 | 22 | 999 | 977 | |
| | SUBTOTAL | 22 | 999 | 977 | |
| –L– 16+43.12 | 20+05 | 58 | 1,075 | 1,017 | |
| | SUBTOTAL | 58 | 1,075 | 1,017 | |
| | SUBTOTAL | 80 | 2,074 | 1,994 | |
| TOTAL | | 80 | 2,074 | 1,994 | |
| MATERIAL FOR SHOULDER CONSTRUCTION | | | 232 | 232 | |
| LOSS DUE TO CLEARING & GRUBBING | | | | | |
| WASTE IN LIEU OF BORROW | | | | | |
| PROJECT TOTAL | | 80 | 2,306 | 2,226 | |
| EST. 5% TO REPLACE TOP SOIL ON BORROW PIT | | | | 111 | |
| GRAND TOTALS: | | 80 | | 2,337 | |
| SAY: | | 100 | | 2,400 | |

UNDERCUT EXCAVATION CONTINGENCY PER GEOTECH REPORT = 830 CUBIC YARDS
SELECT GRANULAR MATERIAL PER GEOTECH REPORT = 830 CUBIC YARDS
GEOTEXTILE FOR SOIL STABILIZATON PER GEOTECH REPORT = 1,150 SQUARE YARDS

Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

Note: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Fine Grading, Clearing and Grubbing and Removal of Asphalt Pavement will be paid for at the contract lump sum price for grading.

## SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

| SURVEY LINE | STATION | STATION | LOCATION LT/RT/CL | $YD^2$ |
|---|---|---|---|---|
| L | 14+90 | 15+47 | CL | 133 |
| L | 16+38 | 18+00 | CL | 378 |
| | | | TOTAL: | 511 |
| | | | SAY: | 520 |

## SHOULDER BERM GUTTER SUMMARY

| SURVEY LINE | STATION | STATION | LENGTH |
|---|---|---|---|
| L (LT SIDE) | 15+17 | 15+30 | 13 |
| L (RT SIDE) | 15+17 | 15+30 | 13 |
| | | TOTAL: | 26 |
| | | SAY: | 30 |

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

## GUARDRAIL SUMMARY

| SURVEY LINE | BEG. STA. | END STA. | LOCATION | LENGTH | | | WARRANT POINT | | "N" DIST. FROM E.O.L. | TOTAL SHOUL. WIDTH | FLARE LENGTH | | W | | ANCHORS | | | | | | | | IMPACT ATTENUATOR TYPE 350 | | | SINGLE FACED CONCRETE BARRIER | REMOVE EXISTING GUARDRAIL | REMOVE AND STOCKPILE EXISTING GUARDRAIL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | STRAIGHT | SHOP CURVED | DOUBLE FACED | APPROACH END | TRAILING END | | | APPROACH END | TRAILING END | APPROACH END | TRAILING END | XI MOD | XI | GREU TL-3 | M-350 | TYPE III | CAT-1 | VI MOD | BIC | AT-1 | EA | G | NG | | | | |
| L | 13+98.25 | 15+42 | LT | 143.75 | | | | 15+00 | 6 | 9 | | 50 | | 1 | | | 1 | | 1 | | | | | | | | | | | |
| L | 13+98.25 | 15+42 | RT | 143.75 | | | 15+00 | | 6 | 9 | 50 | | 1 | | | | 1 | | 1 | | | | | | | | | | | |
| L | 16+42 | 17+60.75 | LT | 118.75 | | | 16+50 | | 6 | 9 | 50 | | 1 | | | | 1 | | 1 | | | | | | | | | | | |
| L | 16+42 | 17+60.75 | RT | 118.75 | | | | 16+50 | 6 | 9 | | 50 | | 1 | | | 1 | | 1 | | | | | | | | | | | |
| | | SUBTOTAL | | 525.00 | | | | | | | | | | | | | 4 | | 4 | | | | | | | | | | | |
| | | LESS ANCHOR DEDUCTIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | GREU TL-3 4 @ 50' | | –200.00 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | TYPE III 4 @ 18.75' | | –75.00 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | TOTAL | | 250.00 | | | | | | | | | | | | | 4 | | 4 | | | | | | | | | | | |
| | | SAY | | 250.00 | | | 5 ADDITIONAL GUARDRAIL POSTS | | | | | | | | | | 4 | | 4 | | | | | | | | | | | |

4/17/2018
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