COMPUTED BY:	WTB	DATE:	7-15-2014
CHECKED BY:	DK	DATE:	9-11-14

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE	SHEET NO.
R-5115	3B-1

"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

GUARDRAIL SUMMARY

G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

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 & STOCKPILE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GRAU 350*	M-350	TYPE III	CAT-1	AT-1	BIC		G	NG				
-L-	13+89.30	17+33.52	Rt.	362.5			14+00.00	17+12.50	8	11	0	14.04'		4'						1	1								
			Sub-Totals	362.5																1	1								
	Deduction for Guard Anchor Units			-12.5															Deductions for Guardrail Anchor Units										
																					1 - CAT-1 @ 6.25' =	6.25							
			Total	350				5 ADDITIONAL GUARDRAIL POSTS													1 - AT-1 @ 6.25' =	6.25							
																					Total =	12.5							
			Say	375																									
-Y23-	15+46.41	19+94.15																									440.72		
																										SAY	450		

SUMMARY OF SUBSURFACE DRAINAGE

Line	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	Lin. Ft.
Additional for Contingency Item					
			Contingency	UD	500
				TOTAL	500

*UD = Underdrain
*BD = Blind Drain
*SD = Subsurface Drain

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

CHAIN	BEGINNING STATION	ENDING STATION	UNCL. EXCA. C.Y.	UNDERCUT C.Y.	EMBANK. +% C.Y.	BORROW C.Y.	WASTE C.Y.
SUMMARY 1							
-L-	10+25.00	17+25.00	3,088		10,654	7,566	0
-Y23-	12+50.00	20+00.00	943		757		186
SUBTOTAL			4,031	0	11,410	7,566	186
SHEET TOTALS			4,031	0	11,410	7,566	186
EARTH WASTE IN LIEU OF BORROW						-186	-186
PROJECT TOTAL			4,031		11,410	7,379	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT						369	
GRAND TOTAL			4,031			7,748	
SAY			4,100			7,825	

DRAINAGE DITCH EXCAVATION = 130 C.Y.
ESTIMATED UNDERCUT = 100 C.Y.
ESTIMATED SHALLOW UNDERCUT = 100 C.Y.

Note: 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.

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

LINE	STATION	STATION	LOC LT/RT/CL	AREA SY
-L-	10+13.06	11+50.84	LT. TO RT.	442.85
-Y23-	13+50.00	14+43.80	RT.	17.64
			TOTAL	460.59
			SAY	470