

COMPUTED BY:	HEC	DATE:	9/21/23
CHECKED BY:	EDM	DATE:	5/22/24

SUMMARY OF EARTHWORK
(CUBIC YARDS)

STATION	STATION	UNCL EXCAV.	EMBANK. + %	BORROW	WASTE
-L- 17 + 05.00	-L- 21 + 52.05	47	5433	5386	
-RPD- 14 + 15.00	-RPD- 15 + 66.47	5	156	151	
-RPC- 12 + 60.00	-RPC- 13 + 53.83	5	460	455	
SUBTOTALS:		57	6050	5993	
-L- 23 + 50.05	-L- 27 + 85.00	21	4356	4335	
-RPA- 10 + 80.00	-RPA- 12 + 57.45		21	21	
-RPB- 13 + 00.00	-RPB- 14 + 75.40		305	305	
SUBTOTALS:		21	4682	4662	
-Y1- 26 + 55.00	-Y1- 35 + 10.00	2321	383		1938
SUBTOTALS:		2321	382		1938
TOTAL		2399	11114	10655	1938
WASTE IN LEU OF BORROW				-1938	-1938
ADDITIONAL UNDERCUT			518	518	450
PROJECT TOTAL		2399	11632	9235	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				462	
GRAND TOTALS:		2399	11632	9697	450
SAY:		2400		9700	

DRAINAGE DITCH EXCAVATION = 130 CY.

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

Note: Approximate quantities only. Unclassified excavation, Fine Grading, Clearing and Grubbing, Breaking of Existing Pavement and removal of existing pavement will be paid for at the lump sum price for "Grading."

"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 TL-3
NG = NON-GATING IMPACT ATTENUATOR TL-3

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD ³
L	20 + 85.00	21 + 13.84	CL	83.67
L	23 + 45.53	23 + 65.00	CL	56.89
RPA			LT/RT	152.00
RPB			LT/RT	148.89
RPC			LT/RT	66.67
RPD			LT/RT	140.00
			TOTAL:	648.11
			SAY:	650

SUMMARY OF BREAKING
EXISTING ASPHALT PAVEMENT

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD ³
L	19 + 57.00	20 + 85.00	CL	403.33
L	23 + 65.00	25 + 17.00	CL	436.67
			TOTAL:	840.00
			SAY:	840

CHAIN LINK FENCE RESET

SURVEY LINESIDE	STATION	STATION	SIDE	LENGTH (FT)
RPC	12 + 69.50	12 + 99.50	RT	30.00
RPB	13 + 80.00	14 + 80.00	LT	100.00
RPD	15 + 25.00	15 + 75.00	LT	50.00
RPA	12 + 10.00	12 + 20.00	RT	10.00
			TOTAL:	190.00
			SAY:	190

CABLE GUIDERAIL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	DOUBLE FACED LENGTH (LF)	END ANCHOR UNIT (EA)	INTERMEDIATE ANCHOR UNIT (EA)	REMOVE EXISTING GUIDERAIL (LF)	COMMENTS
Y1	27 + 05.11	29 + 55.04	CL	277	1	1	670	
Y1	32 + 08.29	35 + 09.24	CL	329	1	1		
		SUBTOTAL:		606			670	
		GRAND TOTALS:		606	2	2	670	
		SAY:		700	2	2	700	
ADDITIONAL GUIDERAIL POSTS =				5 EA.				

SHOULDER BERM GUTTER SUMMARY

SURVEY LINESIDE	STATION	STATION	LENGTH (FT)
RPC(RT)	12 + 93.08	13 + 39.02	67.84
RPD(LT)	14 + 46.10	15 + 82.24	144.37
L(LT)	21 + 05.50	21 + 30.03	24.53
L(RT)	21 + 14.08	21 + 45.87	31.79
Y1(RT)	29 + 54.72	29 + 80.85	26.13
		TOTAL:	294.66
		SAY:	295

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 TL-3					REMOVE EXISTING GUARDRAIL	SINGLE FACED CONCRETE BARRIER	MED. HAZARD PROTECTION	REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	B-77	TYPE III	GREU TL-3	GREU TL-2	XIII	CAT-1	VI MOD	BIC	AT-1	EA	G	NG																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
L/RPC	-L- 17 + 05.00	-RPC- 12 + 60.00	LT/RT	117.92	127.86				6'-0"	9'-0"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

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STATE OF NORTH CAROLINA



ROADWAY DESIGN UNIT

PREPARED BY

wsp

434 FAYETTEVILLE ST., #1500
RALEIGH, N.C. 27601
NC ENG P-1253