12/06/07

COMPUTED BY:	DATE:
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
17BP.8.R.115	3B-1

SUMMARY OF EARTHWORK

IN CUBIC YARDS

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
–L– 14+50	16+70.27	250	210		40
	SUBTOTAL	250	210		40
–L– 17+77.73	20+50	262	620	358	
	SUBTOTAL	262	620	358	
	SUBTOTAL	512	830	358	
TOTAL		512	830	358	40
MATERIAL FOR SHOULDER CONSTRUCTION			170	170	
LOSS DUE TO CLEARING & GRUBBING					
WASTE IN LIEU OF BORROW				–40	–40
PROJECT TOTAL		512	1,000	488	0
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				24	
GRAND TOTALS:		512		512	
SAY:		550		550	

SHALLOW UNDERCUT EXCAVATION CONTINGENCY PER GEOTECH REPORT = 100 CY
UNDERCUT EXCAVATION CONTINGENCY PER GEOTECH REPORT = 400 CY
SELECT GRANULAR MATERIAL CONTINGENCY PER GEOTECH REPORT = 200 CY
CLASS IV SUBGRADE MATERIAL CONTINGENCY PER GEOTECH REPORT = 100 TONS
GEOTEXTILE FOR SOIL STABILIZATION CONTINGENCY PER GEOTECH REPORT = 400 SY

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

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD^2
L	16+25	16+80	CL	122
L	17+68	18+50	CL	182
			TOTAL:	304
			SAY:	310

SHOULDER BERM GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LENGTH
L (LT SIDE)	16+22	16+55.4	33.4
L (RT SIDE)	16+32	16+63.6	31.6
		TOTAL:	65.0
		SAY:	65

"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	GRAU 350	M-350	TYPE III	CAT-1	VI MOD	BIC	AT-1	EA	G	NG				
L	15+73.66	16+67.41	LT	93.75				16+67.41				50		1			1		1											
L	15+81.84	16+75.59	RT	93.75			16+75.59				50		1				1		1											
L	17+72.41	18+66.16	LT	93.75			17+72.41				50		1				1		1											
L	17+80.59	19+74.34	RT	193.75				18+50				50		1			1		1											
		SUBTOTAL		475.00													4		4											
		LESS ANCHOR DEDUCTIONS																												
		GRAU-350 4 @ 50'		–200.00																										
		TYPE III 4 @ 18.75'		–75.00																										
		TOTAL		200.00													4		4											
		SAY		200.00			5 ADDITIONAL GUARDRAIL POSTS										4		4											

4/21/2017
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rlittlejohn