COMPUTED BY: DK DATE:1 /17 /17
CHECKED BY: KA DATE: 1/ 17

PROJECT NO.	SHEET NO.
I-5000	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

"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

IN FEET UNLESS OTHERWISE NOTED

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	AT-1	GRAU 350	M-350	B-77	CAT-1	VI MOD	BIC	TES	G	NG				
RPA	10+00.00	23+41.71	RT	1337.5			17+01.00		10		50		1				1												
RPA	15+19.14	20+32.62	LT	531.25					10	13									1						1				
RPD	10+00.00	33+82.69	LT	2306.25	45		17+61.60		10	13									1								99.44		
RPD	14+93.75	26+50.00	RT	1156.25			18+40.00		10	13									1	1									
RPD	29+61.82	34+43.07	RT	481.25																1									
RPD	34+38.38	34+80.38	RT/LT																						1				
Y1	26+51.33	43+88.83	LT	1693.75	46				2							1													
Y2	10+50.00	13+50.00	RT	300			10+50.00		8	11	50		1				1										159.27		
Y2	14+93.85	16+31.38	RT	137.5					8	11	50		1				1												
Y2	17+51.17	18+07.42	RT	56.25					8	11										1									
Y2	20+00.00	26+00.00	RT	600					8	11	50		1				2												
Y3	20+00.00	23+44.93	LT	306.25	42				8	11		50		1			1												
Y3	20+00.00	23+61.89	RT	325	42				8	11	50		1				1												
Y4A	10+50		RT/LT	25																			2						ROAD CLOSURE
L	45+45.52	47+08.02	LT	162.5					10	13																	591.74		
L	65+00.00	68+31.75	RT	331.25					14	17	50		1				1										355.35		
			Sub-Totals	9750	175											1	8		3	3			2		2		1205.8		
		Deduction for Guard Anchor Units		-481.25															Deductions for Guardrail Anchor Units										
																			8 - Type 350 (TL-3) @ 50' =		400								
			Total	9268.75	175														3- Cat-1 @ 6.25' =		18.75						1205.8		
																			3-B-77 @ 18.75' =		56.25								
		10 ADDITIONAL GUARDRAIL POST																	1-AT-1 @ 6.25' =		6.25								
			SAY	9300	187.5											1	8		3	3			2		2		1212.5		

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
Y2	12+12	16+74		591.27			
Y2	17+07	20+35		794.96			
Y2	20+46	23+97		1,174.44			
Y2	24+09	26+53		409.52			
Y3	15+88	15+88		135.15			
Y3	17+97	19+69		445.86			
Y4A				1,591.41			
LPB	11+28	17+00		1,632.52			
LPB/Y1	16+63	38+55.33		1,421.79			
Y1	38+55.33	39+00		58.62			
LPD				2,281.22			
		TOTAL:		10,536.75			
		SAY:		10,600			

CHAIN LINK FENCE 72" FABRIC

STATION TO STATION	LT. OR RT.	FABRIC L.F.	END BRACE	CORNER BRACE	LINE BRACE	LINE POSTS	TERMINAL POSTS
-TRAIL-14+50.00 TO -TRAIL-29+93.97	LT	1554.70	2	0	2	129.56	4
-TRAIL-14+50.00 TO -TRAIL-29+93.97	RT	1533.24	2	0	2	127.77	4
-TRAIL-31+58.69 TO -TRAIL-31+87.24	LT	26.74	2			1.89	2
-TRAIL-31+59.02 TO -TRAIL-31+84.02	RT	26.64	2			1.89	2
						0.00	0
TOTAL		3141.31	8		4	261.11	12
SAY		3180				262	12

CHAIN LINK FENCE 60" FABRIC

STATION TO STATION	LT. OR RT.	FABRIC L.F.	END BRACE	CORNER BRACE	LINE BRACE	LINE POSTS	TERMINAL POSTS
-Y1-44+35.00 TO -TRAIL-14+50.00	RT	236.56	2	2	1	19.88	5
-TRAIL-14+50.00 TO -RPD-18+48.70	RT	451.64	2	3	1	37.97	6
-RPD-13+28.60 TO -RPD-18+06.89	LT	489.99	2	1	1	40.83	4
-RPA-13+16.16 TO -RPA-17+57.72	RT	454.77	2	3	1	38.23	6
-RPA-18+28.89 TO -RPD-31+59.81	RT	777.53	2	3	1	65.13	6
-RPD-31+69.91 TO -RPD-35+55.35	RT	65.86	2	2	1	5.66	5
TOTAL		2476.35	12	14	6	207.7	32
SAY		2510				208	32

SUMMARY OF EARTHWORK

IN CUBIC YARDS

Station	Station	Uncl. Excav.	Undercut	Embank. +%	Borrow	Waste
-Y2-10+50	26+50	18,352		5,912		12,440
-Y3- 10+00	23+50	7,560		19,538	11,978	
-LPB- 12+00	17+00	478		60		418
	SUBTOTAL	26,390		25,509	11,978	12,858
-RPA- 10+00	23+29.95	599		34,196	33,597	
-RPD- 10+00	35+00	4,126	2,777	50,738	46,612	2,777
	SUBTOTAL	4,725	2,777	84,934	80,209	2,777
-TRAIL- 15+00	17+33.46	58		207	149	
-RPD-/-TRAIL- 17+33.46	29+01.26	8,921		2,761		6,160
-TRAIL- 29+01.26	29+93.97			5,503	5,503	
-TRAIL- 31+58.64	47+89.65	328		1,645	1,317	
	SUBTOTAL	9,307		10,115	6,968	6,160
-Y1- LT 11+00	24+22.38	204		1,012	808	
-Y1- LT 24+22.38	45+00	825		1,349	524	
-Y1- MED 19+50	44+50	1,433				1,433
	SUBTOTAL	2,462		2,361	1,332	1,433
-Y1- RT 11+00	24+22.38	136		224	88	
-Y1- RT 24+22.38	30+97.46	296		28		268
-Y1- RT 30+97.46	36+25.59	142		202	60	
-Y1- RT 36+25.59	45+00	145		198	53	
	SUBTOTAL	719		652	201	268
-L-56+50	68+00	870		148		722
	SUBTOTAL	870		148		722
TOTALS:		44,473	2,777	123,720	100,689	24,218
MATERIAL FOR SHOULDER CONSTRUCTION				1,275	1,275	
LOSS DUE TO CLEARING AND GRUBBING		-1,100			1,100	
ADDITIONAL UNDERCUT			4,000	4,600	4,600	4,000
ROCK WASTE TO RELPACE BORROW					-2,657	-2,657
ADJUST FOR ROCK SWELL				-664	-664	
ELIMINATE EARTH SHRINKAGE				-498	-498	
WASTE IN LIEU OF BORROW					-18,784	-18,784
REDUCTION OF SELECT GRANULAR MATERIAL				-5,750	-5,750	
PROJECT TOTALS:			6,777	122,684	79,311	6,777
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					3,966	
GRAND TOTALS:		43,373	6900*	122,684	83,276	6,777
SAY:		**43,400**			**83,300**	

PAVEMENT STRUCTURE VOLUME = 10,350 CY

* EXCLUDES UNDERCUT FOR CULVERT

SUMMARY OF CONCRETE BARRIER

IN FEET

BEGIN STATION	END STATION	LOCATION	LENGTH: DOUBLE FACED TYPE T	DOUBLE FACED TYPE T1	DOUBLE FACED TYPE T2	PRECAST CONC SINGLE FACED	TRANSITION FROM SFCB TO TYPE T2
26+50.00	27+76.76	RPD / RT			126.76		
27+76.76	29+61.82	RPD / RT		185.06			
29+61.82	34+38.39	RPD / RT	476.57				
55+12.75	55+55.12	L / RT				42.37	
		TOTAL:	476.57	185.06	126.76	42.37	
		SAY:	480	187	128	45	