COMPUTED BY: B. R. C. DATE: 4-05
CHECKED BY: D. L. W. DATE: 4-05

PROJECT REFERENCE NO.	SHEET NO.
B-4009	3B

"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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS								IMPACT ATTENUATOR TYPE 350			REMOVE EXISTING GUARDRAIL	REMOVE AND RESET EXISTING GUARDRAIL	RELAP GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	GRAU 350	CAT-1	AT-1	B-83	TYPE III	M 350			EA	G	NG				
-L-	29+46.74	35+24.50	LT	587.5				35+65.50	10.0	13.0						1			1										
-L-	33+38.05	35+41.79	MID RT	212.5				35+41.79	10.0	13.0	50.0							1		1									
-L-	33+88.66	35+24.50	NEAR RT	150				35+65.50	10.0	13.0	50.0								1	1									
-L-	41+92.47	43+94.03	MID RT	212.5			41+92.47		10.0	13.0		50.0						1		1									
-L-	42+08.50	44+22.85	NEAR RT	225			41+92.50		10.0	13.0		50.0							1	1									
-L-	42+08.50	53+53.27	LT	1,150			41+92.50		10.0	13.0		50.0		1.0	1				1										
-L-	33+40.00	35+42.00	RT																							202.0			
-L-	41+92.47	44+17.00	RT																							227.0			
-L-	41+92.47	43+70.00	RT																							180.0			
-L-	41+92.47	46+94.32	LT				41+92.47		10.0	13.0								1								1027.0			
-L-	28+26.00	35+20.00	FAR RT					35+41.79	10.0	13.0								1									694.0		
-L-	41+92.47	42+75.00	FAR RT																								90.0		
-L-	43+08.00	47+00.00	FAR RT																								392.0		
-DET-	33+36.00	35+36.00	LT																									200.0	
-DET-	41+87.00	43+65.00	LT																									178.0	
	LESS ANCHOR	DEDUCTIONS																											
	GRAU 350	1 @ 50'	=	-50.00'																									
	M 350	4 @ 50'	=	-200.00'																									
	CAT-1	1 @ 6.25'	=	-6.25'																									
	TYPE III	4 @ 18.75'	=	-75.00'																									
	B-83	4 @ 25.00'	=	-100.00'																									
TOTAL				2106.25'											1	1		4	4	4						1636.0	1176.0	378.0	
SAY				2112.5'											1	1		4	4	4						1650.0	1200.0	390.0	
				10 ADDITIONAL GURADRAIL POSTS																									

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBANKMENT + %	BORROW	WASTE
SUMMARY #1					
-L- 22+81.56 TO -L- 35+40.00	894		5,526	4,632	
SUBTOTAL: SUMMARY #1	894		5,526	4,632	
SUMMARY #2					
-L- 41+92.50 TO -L- 55+50.00	733		9,181	8,448	
SUBTOTAL: SUMMARY #2	733		9,181	8,448	
SUMMARY #3					
-DET- 25+50.00 TO -DET- 33+45.21	458		340	0	118
SUBTOTAL: SUMMARY #3	458		340	0	118
SUMMARY #4					
-DET- 42+44.62 TO -DET- 52+48.40	267		541	274	
SUBTOTAL: SUMMARY #4	267		541	274	
SUMMARY #5					
REMOVE -DET- 25+50.00 TO -DET- 52+48.40	870				870
SUBTOTAL: SUMMARY #5	870		0	0	870
TOTAL	3,222		15,588	13,354	988
WASTE USED IN LIEU OF BORROW				-118	-118
ESTIMATED SHOULDER MATERIAL			2,850	2,850	
PROJECT TOTAL	3,222		18,438	16,086	870
EST. REPLACEMENT OF BORROW PIT TOPSOIL				804	
GRAND TOTAL	3,222		18,438	16,890	870
SAY					
				17,000	
UNDERCUT CONTINGENCY PER GEOLOGY	3,000				

EXISTING ASPHALT PAVEMENT REMOVAL SUMMARY

LINE	STATION TO STATION	LOCATION	SQUARE YARDS
-L-	Sta. 29+00 TO Sta. 31+00	LT & RT	667
-L-	Sta. 47+00 TO Sta. 49+00	LT & RT	489
DETOUR	Sta. 25+29 TO Sta. 27+34	LT & RT	182
DETOUR	Sta. 27+34 TO Sta. 30+17	LT & RT	503
DETOUR	Sta. 30+17 TO Sta. 33+63	LT & RT	308
DETOUR	Sta. 42+31 TO Sta. 47+12	LT & RT	427
DETOUR	Sta. 47+12 TO Sta. 50+64	LT & RT	626
DETOUR	Sta. 50+64 TO Sta. 52+90	LT & RT	201
		TOTAL	3,403
		SAY	3,410 SY

NOTE: APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, SHOULDER BORROW, FINE GRADING, CLEARING AND GRUBBING, BREAKING OF EXISTING PAVEMENT, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING".

6/16/99

DATE: 10/21/2005
TIME: 1:34:39 PM
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