COMPUTED BY: PJ	DATE: 10-22-2025
CHECKED BY: TJ	DATE: 10-22-2025

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
U-5711	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.
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 SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR TYPE 350			REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	AT-1	GREU TL-2	TYPE III							NO.	PERMITTED G	PERMITTED NG	
-L-	41+97.95	44+29.20	RT	231.25'	12.50'		43+78.00		4'	7'	25'		1'		1	1											BREAK FOR DRIVEWAY
-L-	43+54.00	45+54.00	LT	200.00'			44+43.00		4'	7'	25'	25'	1'	1'		2											
		SUBTOTAL		431.25'	12.50'																						
		LESS ANCHOR DEDUCTIONS																									
		GREU TL-2 3 x 25.00' =		-75.00'																							
		AT-1 1 x 6.25' =		-6.25'																							
		TOTAL		350.00'	12.50'										1	3											ADDITIONAL GUARDRAIL POSTS = 5 EA

NOTE: SUPPORT PLATE, BOLTS, AND WASHERS USED TO ATTACH GUARDRAIL TO A BOX CULVERT AS SHOWN IN STANDARD 862.03 (SHEET 7 OF 9) ARE INCIDENTAL TO THE COST OF THE GUARDRAIL.

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
-L- 14+00.00 TO 23+00.00	966		503	430	893
-L- 25+00.00 TO 43+88.00	1376	700	1630	1512	1958
-L- 44+22.00 TO 55+81.06	1750		660		1090
-Y2- 11+50.00 TO 12+31.64	46		46		
-Y2- 12+65.64 TO 13+50.00	14		11		3
-Y3- 10+17.03 TO 11+50.00	59		55		4
SUBTOTAL	4211	700	2905	1942	3948
-L- 23+00.00 TO 24+45.98	397		1		396
-L- 24+56.06 TO 25+00.00	8		22	21	7
SUBTOTAL	405		23	21	403
-L- 43+88.00 TO 44+22.00	0		54	54	
SUBTOTAL	0		54	54	
TOTAL	4616	700	2982	2017	4351
MATERIAL FOR SHOULDER CONSTRUCTION			1044	1044	
LOSS DUE TO CLEARING & GRUBBING	-1120			1120	
WASTE IN LIEU OF BORROW				-1401	-1401
ADDITIONAL UNDERCUT		400			400
PROJECT TOTAL	3496	1100	4026	2780	3350
5% TO REPLACE BORROW				139	
GRAND TOTAL	3496	1100	4026	2919	3350
SAY	3700			3100	

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGNER. THESE QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEER.
*NOTE: A QUANTITY OF 3,340 CY OF UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN TOP 3 FT OF EMBANKMENT OR BACKFILL:
270 CY FROM -L- STA. 23+25 - 24+25 (LT & RT); 30 CY FROM -L- STA. 36+50 - 37+50 (LT & RT); 440 CY FROM -L- STA. 40+00 - 42+35 (LT & RT);
1600 CY FROM -L- STA. 45+75 - 55+50 (LT & RT); 1000 CY OF CONTINGENCY

EST. DDE = 1,348 CY

NOTE: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Fine Grading, Clearing and Grubbing and Removal of Existing Asphalt Pavement will be paid for at the contract Lump Sum price for "Grading".

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD^2
-L-	23+03.00	24+38.00	CL	377.67
			TOTAL:	377.67
			SAY:	380

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