6/16/99

COMPUTED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

PROJECT REFERENCE NO.	SHEET NO.
B-3703	3-A

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.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY
IN LINEAR FEET

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			SINGLE FACED GUARDRAIL	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	TYPE 350	III	CAT-1	VI	VI MOD	XI MOD	AT-1			EA	G	NG				
-L-	15+55.78	17+43.28	RT	187.50				17+43.28	4.50	11.00	143.75		3.88		1	1														
-L-	16+55.78	17+43.28	LT	87.50			17+43.28		4.50	11.00		18.75		1.38	1	1														
-L-	18+92.42	19+79.92	RT	87.50			18+92.42		4.50	11.00		18.75		1.38	1	1														
-L-	18+92.42	21+04.92	LT	212.50				18+92.42	4.50	11.00	143.75		3.88		1	1														
SUBTOTAL				575.00											4	4		DEDUCTION FOR ANCHORS												
LESS ANCHORS				-275.00														TYPE 350 4 @ 50' = 200.00												
																		TYPE III 4 @ 18.75' = 75.00'												
GRAND TOTAL				300.00											4	4														
5 EA. ADDITIONAL GUARDRAIL POSTS																		SUBTOTAL = 275.00'												

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCL. EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
-L- 14+80.00 TO -L- 17+44.35 (BEGIN BRIDGE)	168		229	61	
-L- 18+91.35 (END BRIDGE) TO -L- 23+00.00	59		377	318	
SUBTOTAL	227		606	379	
UNCL. LOSS DUE TO CLEARING & GRUBBING	-60			60	
PROJECT TOTALS	167		606	439	
EST. 5% FOR REPLACING TOP SOIL ON BORROW PITS				22	
GRAND TOTAL	167			461	
SAY	175			495	
ESTIMATED UNDERCUT EXCAVATION = 60 CY					

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

LINE	STATION	STATION	LOC LT/RT/CL	YD^2
-L-	14+80.00	17+50.00	LT/RT/CL	600
-L-	18+88.00	20+30.00	LT/RT/CL	316
			TOTAL:	916
			SAY:	920

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

| STATION / SIZE / THICKNESS OR GAUGE | LOCATION (LT,RT, OR CL) | STRUCTURE NO. FROM | STRUCTURE NO. TO | TOP ELEVATION | INVERT ELEVATION | INVERT ELEVATION | SLOPE CRITICAL | CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHRWISE) 12" .064 | 15" .064 | 18" .064 | 24" .064 | 30" .079 | 30" | 36" .079 | 36" | 42" .109 | 42" | 48" .109 | 48" | 15" SIDE DRAIN PIPE | 18" SIDE DRAIN PIPE | 24" SIDE DRAIN PIPE | ENDWALLS STD. 838.01, STD. 838.11, OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P. | C.S.P. | QUANTITIES FOR DRAINAGE STRUCTURES * TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') PER EACH (0' THRU 5.0') | LIN. FT. A 5.0' THRU 10.0' | B 10.0' AND ABOVE | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E | F | G | BRIDGE APPROACH DROP INLET (SEE SHEET 2-J) | D.I. FRAME & GRATE STD. 840.29 | M.D.I. TYPE "A" STD. 840.17 OR 840.26 | M.D.I. TYPE "B" STD. 840.18 OR 840.27 | M.D.I. TYPE "D" STD. 840.19 OR 840.28 | M.D.I. FRAME WITH GRATE STD. 840.22 | M.D.I. FRAME WITH TWO GRATES STD. 840.29 | M.D.I. (N.S.) FRAME WITH GRATE STD. 840.24 | M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24 | J.B. STD. 840.31 OR 840.32 | CORR. STEEL ELBOWS NO. & SIZE | CONC. COLLARS CL. "B" C.Y. STD 840.72 | CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71 | PIPE REMOVAL LIN.FT. | REMARKS |
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