6/21/00

COMPUTED BY: Carolyn Powell DATE: 12/22/04
CHECKED BY: Freddy Tuck DATE: 12/22/04

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
B-4260	3-A

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	36" .079	42" .109	48" .109	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') 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	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	M.D.I. TYPE "A" STD. 840.17 OR 840.26	T.B.D.I. STD. 840.35	M.D.I. TYPE "D" STD. 840.19 OR 840.28	M.D.I. FRAME WITH GRATE STD. 840.22	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
-L- 13+26	LT	1																						24																										
-L- 12+45	RT	2																						24																									26	REMOVE PIPE @ 14+63 LT
-L- 17+28	LT	3		872.57	869.76																								1										1			1								
-L- 17+28	RT	4		872.6	869.85																								1										1			1								
		3	4						36																																									
-L- 18+00	LT	5		871.76	869.01																								1										1			1								
-L- 18+00	LT	5	OUT														20																													2@15"				
		3	5						72																																								21	REMOVE 15" CMP STA. 19+41 RT.
		6																						24																										
TOTAL									108								20							72					3										3			3				2@15			47	

ABBREVIATIONS

C.B. CATCH BASIN
N.D.I. NARROW DROP INLET
D.I. DROP INLET
M.D.I. MEDIAN DROP INLET
M.D.I. (N.S.) MEDIAN DROP INLET (NARROW SLOT)
J.B. JUNCTION BOX
M.H. MANHOLE
T.B.D.I. TRAFFIC BEARING DROP INLET
T.B.J.B. TRAFFIC BEARING JUCTION BOX

"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 STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPROACH END	WARRANT POINT TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS XI MOD	XI	GRAU 350	M-350	III	CAT-1	VI MOD	BIC	AT-1	IMPACT ATTENUATOR TYPE 350 EA	G	NG	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
-L-	14+25.12	15+62.62	LT.	137.50'				15+62.62	6'	9'							1		1											
-L-	16+84.32	19+71.82	LT.	287.54			16+84.32		6'	9'							1		1											
-L-	12+87.62	15+62.62	RT.	275			15+62.62		6'	9'							1		1											
-L-	16+84.32	18+21.82	RT.	137.5				16+84.32	6'	9'							1		1											
			PROJECT TOTAL	837.5'													4		4											
			LESS DEDUCTIONS	275'																										
			TOTAL LENGTH	562.5'													ANCHOR UNITS DEDUCTIONS													
			SAY	600'													4 TYPE III @ 18.75'													
																	4 GRAU 350@ 50'													
		ADDITIONAL	GUARDRAIL POST	5 EA.													TOTAL 275'													

cpowell AT

EARTHWORK SUMMARY
IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	EMBANKMENT +%	BORROW	WASTE
SUMMARY NO. 1				
-L- 12+00 TO 15+73	4025	607	0	3418
-L- 16+73 TO 19+50	90	856	766	
SUBTOTAL NO. 1	4115	1463	766	3418
Loss due to clearing and grubbing	-10			-10
Waste to Replace Borrow			-766	-766
PROJECT TOTALS	4105	1463		2642
GRAND TOTALS	4105			
SAY	4600			
Additional Undercut	100			

SUMMARY OF "ASPHALT" PAVEMENT REMOVAL

LINE	BEGIN STATION	END STATION	LOCATION	SQ. YDS.
-L-	13+50.00	15+73.47	CL	446.94
-L-	16+73.47	18+00.00	CL	253.06
			TOTAL	700
			SAY	750

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