9/16/02

COMPUTED BY: W. T. BEST DATE: JAN. 9, 2004
CHECKED BY: W. A. SMITH DATE: FEB. 6, 2004

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
B-3871	3-A

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

STATION	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 & GRATES STD. 840.16	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. 840.22	M.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	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
12+85.00 -L-	LT.	1	2		42.30	41.55			68'																																										INLET PIPE
13+55.02 -L-	LT.	2		43.80	41.55																								1							1	1														
14+25.00 -L-	LT.	3		42.00	39.75																								1							1	1														
		2	3		41.55	39.75			72'																																										
15+00.00 -L-	LT.	4		39.90	37.70																								1							1	1														
		3	4		39.75	37.70			76'																																										
15+27.79 -L-	LT.	4	5		37.70	37.60			32'																																										OUTLET PIPE
13+36.00 -L-	LT.																																																	74'	
13+93.03 -L-	LT.																																																	60'	
14+57.52 -L-	LT.																																																	64'	
15+25.97 -L-	LT.																																																	70'	
14+57.52 -L-	RT.	6																								16'																										
15+50.04 -L-	LT.	7																													1										1						1					
15+50.04 -L-	LT.	7	8																20' (UNCOATED)																													2@15"				OUTLET PIPE
15+50.04 -L-	RT.	9																													1										1						1					
15+50.04 -L-	RT.	9	10																12' (UNCOATED)																													2@15"				OUTLET PIPE, CL. B RIP RAP REQUIRED
19+06.00 -L-	RT.	12	11		43.05	42.10			58'																																										OUTLET PIPE, CL. B RIP RAP REQUIRED
19+50.00 -L-	RT.	12		45.30	43.05																								1							1	1														
14+59.70 -L-	RT.																																																	30'	
19+26.90 -L-	RT.																																																	45'	
19+53.90 -L-	RT.																																																	8'	
SUMMARY TOTALS									306'									32' (UNCOATED)								16'					6							4	4		2						2		4@15"			351'	SUMMARY TOTALS

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

STATE OF NORTH CAROLINA
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"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

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 SHOULDER WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS TYPE 350	ANCHORS XIII	ANCHORS	IMPACT ATTENUATOR TYPE 350 EA	G	NG	REMARKS
-L-	14+82.50	16+20.00	RT.	137.50'			16+20.00		8.00'	11.00'	25.00'				1	1					
-L-	14+82.50	16+20.00	LT.	137.50'			16+20.00		8.00'	11.00'	25.00'				1	1					
-L-	17+15.00	18+52.50	RT.	137.50'				17+15.00	8.00'	11.00'		25.00'			1	1					
-L-	17+15.00	20+15.00	LT.	300.00'				17+15.00	8.00'	11.00'		25.00'			1	1					
			SUB-TOTAL	712.50'																	
		LESS ANCHOR DEDUCTIONS		-275.00'											DEDUCTIONS FOR GUARDRAIL ANCHOR UNITS						
			TOTAL	437.50'										TYPE 350	4 @	50.00'	= 200.00'				
														TYPE III	4 @	18.75'	= 75.00'				
			SAY	450.00'												TOTAL	275.00'				

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