COMPUTED BY: JRM	DATE: 07/8/04
CHECKED BY: SKR	DATE: 08/10/04

PROJECT REFERENCE NO.	SHEET NO.
U-4008	3-A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES 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	15" WELDED STEEL PIPE, 0.5" THICK, GRADE B (BY BORING & JACKING)	36" WELDED STEEL PIPE, 0.5" THICK, GRADE B (BY BORING & JACKING)	C.B. STD. 840.04 OR 840.05	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. FRAME W/GRATES STD. 840.24	M.D.I. FRAME W/GRATES STD. 840.29	TRAFFIC BEARING D.I. STD. 840.35	M.H. STD. 840.51 OR 840.53	J.B. STD. 840.31 OR 840.32	M.H. FRAME & COVER STD. 840.54	CONC. APRON FOR CATCH BASIN	CONC. & BRICK PIPE PLUG, STD. 840.71 (CU. YDS.)	PIPE PLUG, FLOWABLE FILL (CU. YDS.)	CONC. COLLARS CL. "B" STD 840.72 (CU.YDS.)	4" CONC. PAVED DITCH S.Y. (BERM DITCH OUTLET)	CONVERT D.I. TO O.T.C.B. (SEE DETAIL 2-Q)	BIT COAT CS PIPE ELBOWS NO. & SIZE	PIPE REMOVAL LIN.FT.	REMARKS
-Y2A- 14+72	RT.	1		293.3	284.2	281.8																								4.1																						1			EXTRA DEPTH, STD. 840.04 OR 840.05
-Y- 11+02	LT.	2	3		280.0	279.0			8'																																														
-Y- 11+10	LT.	3		282.5																									1									1																	OTCB
-Y- 11+10	LT.	3	4		278.5	276.5					92'																																												
-Y- 11+72	LT.	4		293.9																									1	5	7.4													1		1									EXTRA DEPTH
-Y- 11+72	LT.	4	5		285.2	285.7				80'																																													
-Y- 11+28	RT.	5		290.0																									1									1																	OTCB
-Y- 11+28	RT.	5	6		287.0	288.0		8'																																															
-Y2A- 21+00	RT.	7																									3.4																												
-Y2A- 21+00	C.L.	7	8		292.0	285.2																															120'											.13							TRENCHLESS INSTALLATION
-Y2A- 21+13	LT.	8		291.0																									1	0.8									1		1														2GI, EXTRA DEPTH
-Y2A- 21+13	LT.	8	12		285.2	284.7							136'																																										
-Y2A- 22+39	LT.	9		296.0																									1			1			1												1	.13							
-Y2A- 22+39	LT.	9	12		293.0	292.6			60'																																														
-Y2A- 23+17	LT.	10		296.4																									1			1			1												1								
-Y2A- 23+17	LT.	10	11		293.4	292.7			56'																																													20'	REMOVE CB
-L- 24+00	RT.	11		295.7																									1			1	1														1								
-L- 24+00	RT.	11	12		292.7	292.4			80'																																													209'	REMOVE 3 PIPES, MH, & CB
-L- 23+19	RT.	12		295.7																									1	5	1	1	1														1								EXTRA DEPTH
-L- 23+16	C.L.	12	13		284.7	284.4																															76'											.09						20'	TRENCHLESS INSTALLATION
-Y1- 11+16	RT.	14		299.9																									1			1		1																					
-Y1- 11+16	RT.	14	15		296.9	293.0			44'																																													36'	REMOVE CB
-Y1- 10+34	LT.	16		295.3																									1			1		1																					
-Y1- 10+34	LT.	16	17		292.3	291.0			20'																																													50'	REMOVE CB
-Y2A- 26+72	RT.	18																																																1.0126					REMOVE HW
-Y2A- 26+72	RT.	18	18A												12'																																								
-Y2A- 26+78	RT.	18A																									6.0																												
-L- 26+00	RT.	19		295.4																									1			1			1												1								
-L- 26+00	RT.	19	20		291.8	285.0																														88'																			TRENCHLESS INSTALLATION
-L- 26+00	RT.	19	31		291.8	292.4			196'																																														
-L- 34+85	RT.	21		310.2																									1											1	1							.116							2GI, REMOVE DI
-L- 35+47	LT.	22		314.2																									1	2.4												1	1												2GI, EXTRA DEPTH
-L- 35+47	LT.	22	24		306.8	307.1																															60'											.116							TRENCHLESS INSTALLATION
-L- 35+47	LT.	22	26		306.8	300.9							260'																																										
-L- 35+47	LT.	22	23		308.9	313.5						28'																																											FLARED END SECTION
-Y4A- 20+65	LT.	24																									3.4																												
-L- 32+98	RT.	25		304.1																									1											1	1														2GI
-L- 32+98	RT.	25	26		301.3	301.1																														48'																			TRENCHLESS INSTALLATION
-L- 32+85	LT.	26		306.6																									1	1.2												1	1												2GI
-L- 32+85	LT.	26	27		302.6	306.8																														72'																		51'	TRENCHLESS INSTALLATION, REMOVE 2 PIPES
-L- 32+85	LT.	26	30		300.4	288.0								336'																																									
-Y4A- 18+44	LT.	27		309.6																									1													1	1												2GI
-Y4A- 18+44	LT.	27	28		306.8	311.0											12'																																				1@15"		
-Y4A- 18+22	LT.	27	29		306.8	312.5											32'																																				1@15"		
-Y4A- 18+45	LT.	28																																																	11				
-Y4A- 18+13	LT.	29																																																	11				
-L- 29+49	LT.	30		294.3																									1	1.3									1		1														2GI, EXTRA DEPTH
-L- 29+49	LT.	30	32		288.0	286.3								148'																																									
-L- 28+00	RT.	31		295.4																									1			1			1												1								
SHEET TOTALS:								8'	464'	80'	92'	28'	396'	484'	12'		44'										12.8		18	19.8	8.4	8	2	2	4	208'	256'	2	2	2	4	3	3	1		1	6	.582		1.0126	22	1	2@15"	386	

ABBREVIATIONS

H.W.	HEADWALL
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

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