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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-5799	3D-1

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

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

LINE & STATION / SIZE / THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %
-L- 12+84	5 LT	0401		2134.50			
		0401	0412		2130.80	2130.50	
-L- 15+07	9 RT	0402		2132.13			
		0402	0404		2127.98	2127.68	
-L- 15+22	13 RT	0403		2131.90			
		0403	0402		2128.14	2128.08	
-L- 15+07	50 LT	0404		2132.20			
		0404	0431		2127.00	2125.90	
-L- 15+22	54 RT	0405		2131.44			
		0405	0403		2128.44	2128.24	
-Y1- 12+56	29 LT	0406		2129.29			
		0406	0407		2127.09	2126.84	
-Y1- 13+41	18 LT	0407		2129.25			
		0407	0408		2126.84	2126.68	
-Y1- 13+52	31 RT	0408		2128.88			
		0408	0409		2126.38	2126.25	
-Y1- 14+00	31 RT	0409		2129.22			
		0409	0420		2126.25	2125.76	
-L- 12+82	54 RT	0410		2135.00			
		0410	0401		2132.00	2130.90	
-WBL- 9+86	13 LT	0411		2146.78			
		0411	0430		2143.78	2141.96	
-WBL- 13+00	13 LT	0412		2134.94			
		0412	0413		2130.40	2128.86	
-WBL- 13+50	43 LT	0413		2133.01			
		0413	0414		2128.76	2128.19	
-WBL- 13+97	43 LT	0414		2132.34			
		0414	EX-0417		2128.09	2126.72	
-WBL- 14+26	25 LT	0415		2132.53			
		0415	0404		2129.53	2127.68	
-WBL- 16+05	41 LT	0416		2129.25			
		0416	0522		2124.48	2122.05	
-WBL- 12+50	43 LT	0417		2133.45			
		0417	0413		2130.95	2128.86	
-Y1- 13+05	31 RT	0418		2129.29			
		0418	0408		2127.09	2126.68	
-L- 13+32	1 RT	0419		2134.00			
		0419	0401		2131.00	2130.70	
-Y1- 15+89	30 RT	0420		2128.26			
		0420	0435		2125.76	2125.50	
-Y1- 15+79	19 LT	0421		2128.54			
		0421	0420		2126.34	2126.06	
-Y1- 12+00	30 RT	0423		2129.84			
		0423	0418		2127.64	2127.09	
-Y1- 13+01	51 RT	0424		2129.90			
		0424	0418		2127.20	2127.09	
		0425	0409		2128.30	2126.25	
		0426	0427		2127.90	2125.82	
-Y1- 16+05	46 RT	0427		2129.47			
		0427	0428		2125.72	2125.63	

FROM	TO	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C.S. PIPE 12 (0.064)	15 (0.064)	18 (0.064)	24 (0.064)	30 (0.079)	36 (0.079)	42 (0.109)	48 (0.109)	R.C. PIPE CLASS III 12	15	18	24	30	36	42	48	R.C. PIPE CLASS IV 15	18	24	30	R.C. PIPE CLASS V 15	18	24	30
0401	0412																																		36		
0402	0404																													56							
0403	0402																													12							
0404	0431																													12							
0405	0403																																	40			
0406	0407																																	84			
0407	0408																																	48			
0408	0409																																		52		
0409	0420																																		188		
0410	0401																																	56			
0411	0430																																	36			
0412	0413																															60					
0413	0414																																				44
0414	EX-0417																																20				
0415	0404																													80							
0416	0522																										56										
0417	0413																																100				
0418	0408																																	52			
0419	0401																													48							
0420	0435																																		56		
0421	0420																																	48			
0423	0418																																	104			
0424	0418																						24														
0425	0409																						24														
0426	0427																															44					
0427	0428																															24					
SHEET TOTAL																							48				56			208		128	120	468	332		44

STRUCTURE NO.	ENDWALLS STD. 838.01 OR STD.838.11 (UNLESS OTHERWISE NOTED) CY	REINFORCED ENDWALLS CY	MASONRY DRAINAGE STRUCTURE CY	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS 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'	LIN.FT. 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	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 3 GRATES STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	T.B. J.B. STD. 840.34	T.B.G.D.I. STD. 840.36	STEEL FRAME AND TWO GRATES STD. 840.37	STEEL FRAME AND GRATE STD. 840.37	M.H. STD. 840.51, STD. 840.52, OR STD.53	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING D.I. TO C.B.	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO 2 G.I.	CONVERT C.B. TO D.I.	ADJUST EXISTING MANHOLE	ADJUST EXISTING C.B.	ADJUST D.I.	ADJUST 2GI	15" C.S. ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	30" C.S. ELBOW	36" C.S. ELBOW	42" C.S. ELBOW	48" C.S. ELBOW	BERM DITCH OUTLET STD. 850.10 (PER EACH)	BERM DITCH OUTLET STD. 850.11 (PER EACH)	CONC. COLLARS CL. "B" C.Y. STD. 840.72	FLOWABLE FILL, C.Y.	CONC. & BRICK PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN. FT.	REMARKS
0401								1												1						1																													12	REMOVE 12 LF OF EXIST. 15" CMP, REMOVE EXIST. D.I.
0402								1							1		1	1																																						
0403								1							1		1	1																																		3.40	0.09		REMOVE EXIST. D.I., PLUG AND FILL 75 LF OF EXIST. 15" CMP
0404								1	0.20		1	1																																											14	REMOVE EXIST. CB, REMOVE 14 LF OF EXIST. 15" HDPE
0405								1			1	1																																												
0406								1			1			1																																										
0407								1			1			1																																										
0408								1			1		1																																											
0409								1			1		1																																										41	REMOVE EXIST. CB, REMOVE 41 LF OF EXIST. 18" CMP
0410								1			1		1																																											
0411								1			1			1																																										
0412								1			1			1																																										
0413								1			1		1																																										70	REMOVE EXIST. CB, REMOVE 35 LF OF EXIST. 18" RCP, REMOVE 35 LF OF EXIST. 30" RCP
0414								1			1			1																																									70	REMOVE EXIST. MH, REMOVE EXIST. CB, REMOVE 70 LF OF EXIST. 30" RCP
0415								1			1			1																																										
0416								1																			1						1																							
0417						2																																																		
0418								1			1		1																																											
0419								1									1	1																																		3.20	0.09		FIELD ADJ. D.I. FOR ISLAND AS NEEDED, REMOVE EXIST. JB, PLUG AND FILL 71 LF OF EXIST. 15" CMP
0420								1			1		1																																										50	REMOVE 50 LF OF EXIST. 12" CMP
0421								1			1			1																																										
0423								1			1		1																																											
0424								1									1	1																																					
0427								1			1			1																																									22	REMOVE EXIST. CB, REMOVE 22 LF OF EXIST. 15" HDPE
SHEET TOTAL						2		23	0.2		17	2	7	8	2		4	4		1						1	1						1																				7	0.18	279	

ABBREVIATIONS

C.A.A - CORRUGATED ALUMINUM INLET
C.B - CATCH BASIN
C.S. - CORRUGATED STEEL
D.I. - DROP INLET
G.D.I. - GRATED DROP INLET
P.D.P.E. - HIGH DENSITY POLYETHYLENE
J.B. - JUNCTION BOX
M.H. - MANHOLE
N.S. - NARROW SLOT
P.V.C. - POLYVINYL CHLORIDE
R.C. - REINFORCED CONCRETE
T.B.D.I. - TRAFFIC BEARING DROP INLET
T.B.J.B. - TRAFFIC BEARING JUNCTION BOX
W.S. - WIDE SLOT