R0278038

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-4903	3D-3

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	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) SIZE 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC
								THICKNESS OR GAUGE												
Y02 290+00	LT	0654		119.0																
		0654	0651		111.7	110.5														
Y02 272+00	CL	0658		117.5																
Y02 277+00	CL	0659		123.3																
Y02 285+10	LT	0660		101.0																
		0660	0645		97.7	97.5	0.5													
Y02 275+98	RT	0661		124.7																
		0661	0629		121.4	119.1														
L 45+50	RT	0662		105.6																
		0662	0618		99.4	92.6	0.5													
Y02 280+66	RT	0663																		
Y02 278+22	RT	0664																		
L 57+27	LT	0704		83.0																
		0704	0705		78.9	78.7														
L 57+45	LT	0705		90.1																
		0705	0717		78.7	78.4														
L 63+75	LT	0709		70.0																
		0709	0710		64.8	61.0														
L 66+35	RT	0713		70.0																
		0713	0714		66.5	59.0			44							X				
L 56+50	RT	0715		90.0																
		0715	0717		83.8	81.4	0.3													
L 56+50	LT	0716		90.0																
		0716	0705		87.3	86.0	0.9													
L 57+50	RT	0717		87.6																
L 68+00	RT	0802		68.5																
		0802	0803		65.0	58.0			36							X				
L 72+79	RT	0805																		
L 74+65	RT	0806																		
L 73+19	LT	0807																		
Y01 24+96	RT	0910																		
Y01 23+85	LT	0911																		
Y01 25+09	LT	0913																		
Y01 27+18	LT	0916																		
Y03 10+37	CL	0917																		
Y02 293+00	LT	1101		111.5																
		1101	1102		108.8	106.0	1.1													
Y02 294+94	LT	1102		109.2																
		1102	1105		105.2	102.4														
Y02 294+94	LT	1103		110.5																
		1103	1102		107.7	106.0														
Y02 295+00	CL	1104		110.3																
Y02 298+50	LT	1105		106.4																
		1105	1106		101.3	101.2														
Y02 299+78	LT	1108		103.0																
		1108	1109		99.4	99.0	0.3													
TEMPORARY DRAINAGE STRUCTURES																				
DET1 27+30	CL	0201								196										
DET2 12+75	CL	0202								188										
DET2 27+33	CL	0203								296										
SHEET TOTALS									80	680										
PROJECT TOTALS									292	680										

LINE & STATION	C. S. PIPE SIZE 12	15	18	24	30	36	42	48	R. C. PIPE CLASS III SIZE 12	15	18	24	30	36	42	48	R. C. PIPE CLASS IV SIZE 12	15	18	24	30	36	42	48
	.064	.064	.064	.064	.079	.079	.109	.109																
Y02 290+00																								
											204													
Y02 272+00																								
Y02 277+00																								
Y02 285+10																								
																			12					
Y02 275+98																								
		24																						
L 45+50																								
																						548		
Y02 280+66																								
Y02 278+22																								
L 57+27																								
															56									
L 57+45																								
																							68	
L 63+75																								
												152												
L 66+35																								
L 56+50																								
															100									
L 56+50																								
									96															
L 57+50																								
L 68+00																								
L 72+79																								
L 74+65																								
L 73+19																								
Y01 24+96																								
Y01 23+85																								
Y01 25+09																								
Y01 27+18																								
Y03 10+37																			108					
Y02 293+00																								
									188															
Y02 294+94																								
												348												
Y02 294+94																								
									16															
Y02 295+00																								
Y02 298+50																								
												52												
Y02 299+78																								
									12															
TEMPORARY DRAINAGE STRUCTURES																								
DET1 27+30																								
DET2 12+75																								
DET2 27+33																								
SHEET TOTALS		24							312	204	348	204			156				120			548	68	
PROJECT TOTALS		24	76	28					592	248	348	204	88		576			1548	960	796	416	848	196	

LINE & STATION	### R.C. PIPE CULVERTS, CONTRACTOR DESIGN	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B) A 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	T.B.D.I. FOR STEEL GRATES STD. 840.36	STEEL FRAME WITH TWO GRATES STD. 840.37	TEMP STEEL PLATE COVER MASONRY DRAINAGE	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	ADJUST 2GI	15" DRAINAGE PIPE ELBOW				MODIFIED CONC. FLUME		CONCRETE COLLARS CL. "B" STD. 840.72 CY	PIPE REMOVAL LIN. FT.	REMARKS
Y02 290+00						1	2.3																				1								1												23	REMOVE PART OF 15" RCP
Y02 272+00																																											1					ADJUST 2GI
Y02 277+00																																											1					ADJUST 2GI
Y02 285+10						1																				1																						
Y02 275+98						1																								1																		
L 45+50						1	1.3																					1						1														
Y02 280+66																																														1		
Y02 278+22																																														1		
L 57+27				4.500																																												HW FOR 42" RCP
L 57+45						1	5.0	1.4																			1								1													
L 63+75																																															64	REMOVE 30" RCP
L 66+35						1																											1		1													
																																											2					
L 56+50						1	1.3																					1					1														
L 56+50						1																							1				1														
L 57+50						1	5.0	0.2																				1					1														
L 68+00						1																											1		1													
																																											2					
L 72+79			56																																												44	REMOVE 15" RCP
L 74+65			80																																												64	REMOVE 15" RCP
L 73+19			60																																												40	REMOVE 18" RCP
Y01 24+96		36																																													16	REMOVE 15" RCP
Y01 23+85		40																																													24	REMOVE 15" RCP
Y01 25+09		28																																													20	REMOVE 15" RCP
Y01 27+18		56																																														
Y03 10+37																																																
Y02 293+00						1																							1																			
Y02 294+94						1																						1																				SEE SPECIAL DETAIL SHEET 2C-4
Y02 294+94																																													0.3990		COLLAR AND EXTEND 15" RCP
Y02 295+00																																											1					ADJUST 2GI
Y02 298+50						1	0.1																					1																				SEE SPECIAL DETAIL SHEET 2C-4
Y02 299+78																																													0.3990		COLLAR AND EXTEND 15" RCP
TEMPORARY DRAINAGE STRUCTURES																																																
DET1 27+30																																					1											TEMPORARY STEEL PLATE
DET2 12+75																																																
DET2 27+33																																																
SHEET TOTALS		160	196		4.500	13	15.0	1.6							1			5	3				4		4		2		2	2			1		2	3	4				2		0.7980	295	
PROJECT TOTALS		160	196		7.900	58	62.9		13			13	7	3	2	7	7	12	13	2		1		11	2	16		5	1	2	6			1		3	5	4				2		0.7980	359	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.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