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R4L-WS077

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-4705	3D-9

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 %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 15	18	24	30	36	42	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC
L 481+55	29 RT	4101		77.1														
L 481+55	20 RT	4102		78.4														
		4102	4105		73.9	72.8												
L 482+00	20 LT	4103		78.3														
		4103	4106		75.3	74.7												
L 483+80	36 RT	4104		77.1														
		4104	4107		72.6	71.6	0.5											
L 483+80	20 RT	4105		77.8														
		4105	4104		72.8	72.6			16						X	X		X
L 484+00	20 LT	4106		77.7														
		4106	4108		74.7	74.1												
L 486+00	20 LT	4108		77.1														
		4108	4109		74.1	72.6		24							X	X		X
L 486+00	20 RT	4110		77.1														
		4110	4111		74.1	73.1												
L 488+00	20 RT	4111		76.1														
		4111	4113		73.1	71.5												
L 488+00	20 LT	4112		76.1														
		4112	4114		73.1	71.4												
L 490+00	20 RT	4113		74.5														
		4113	4130		71.5	70.6		12							X	X		X
L 489+50	43 RT	4125	4130		70.0	69.3				52					X	X		X
L 490+00	32 RT	4130		74.6														
		4130	4133		69.3	68.9					116				X	X		X
L 490+34	20 LT	4114		74.4														
		4114	4116		71.4	70.6												
L 490+66	43 LT	4115		70.3														
		4115	4116		70.3	69.4	0.4					16			X	X		X
L 490+74	31 LT	4116		74.1														
		4116	4117		69.4	69.1	0.6											
L 490+86	20 RT	4117		74.3														
		4117	4118		69.1	69.1												
L 490+95	20 RT	4118		74.3														
		4118	4131															
Y26 10+66	26 LT	4120		73.8														
		4120	4116		70.0	69.4												
Y26 10+66	20 RT	4121		73.9														
		4121	4120		70.1	70.0												
L 492+20	20 LT	4122		74.7														
		4122	4121		71.4	70.6	0.4		88						X	X		X
Y26 11+00	27 RT	4123	4121		71.9	70.6			36						X	X		X
L 492+50	37 LT	4124	4122		72.9	71.4			36						X	X		X
L 489+65	44 LT	4128							32						X	X		X
L 490+68	44 RT	4125							80						X	X		X
L 492+12	34 RT	4126						24							X	X		X
L 492+94	28 RT	4127						24							X	X		X
Y25 14+16	27 RT	4129						36							X	X		X
L 494+14	31 RT	4226						24							X	X		X
L 493+92	34 LT	4227						80							X	X		X
L 494+23	34 LT	4228						24							X	X		X
						SHEET TOTALS		248	288	52	116	16						

LINE & STATION	C. S. PIPE 15 (.064)	18 (.064)	24 (.064)	30 (.079)	36 (.079)	42 (.109)	48 (.109)		R. C. PIPE CLASS III 15	18	24	30	36	42	48		R. C. PIPE CLASS IV 15	18	24	30	36	42	48		R. C. PIPE CLASS V 15	18	24	30	36	42	48	
L 481+55																																	
L 481+55																																	
																		224															
L 482+00																																	
																	200																
L 483+80																																	
																										172							
L 483+80																																	
L 484+00																																	
																	200																
L 486+00																																	
L 486+00																																	
																	200																
L 488+00																																	
																	200																
L 488+00																																	
																	232																
L 490+00																																	
L 489+50																																	
L 490+00																																	
L 490+34																																	
																	40																
L 490+66																																	
L 490+74																																	
L 490+86																																	
L 490+95																																	
																24																	
Y26 10+66																																	
																		44															
Y26 10+66																																	
																										44							
L 492+20																																	
Y26 11+00																																	
L 492+50																																	
L 489+65																																	
L 490+68																																	
L 492+12																																	
L 492+94																																	
Y25 14+16																																	
L 494+14																																	
L 493+92																																	
L 494+23																																	
SHEET TOTALS																24		1072	224	44		8				172	44		52				

LINE & STATION	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	18" WELDED STEEL PIPE 0.25" THICK, IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY 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.	A: 10' AND ABOVE LIN. FT.	B: 0' THRU 5' EACH	B: 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	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 W/ 2 GRATES STD. 840.20	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	J.B. STD. 840.31 OR STD. 840.32	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	ADJUST D.I.	ENERGY DISSIPATION BASIN	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
L 481+55								1																					1				
L 481+55								1			1																						
L 482+00								1				1																					
L 483+80								1						1	1																		
L 483+80								1			1																						
L 484+00								1				1																					
																																28	
L 486+00								1				1																					
L 486+00								1			1																						
L 488+00								1			1																						
L 488+00								1				1																					
L 490+00								1			1																						
L 489+50																																	
L 490+00								1	0.3										1			1											
L 490+34								1			1																						
L 490+66						3.400																											
L 490+74								1			1																						
																														20			
L 490+86								1	0.3		1																						
L 490+95								1	0.3		1	1																					
																																20	
Y26 10+66								1			1	1																					
Y26 10+66								1			1	1																					
																																56	
L 492+20								1			1																						
Y26 11+00																																	
L 492+50																																	
L 489+65																																40	
L 490+68																																	
L 492+12																																28	
L 492+94																																44	
Y25 14+16																																	
L 494+14																																52	
L 493+92																																24	
L 494+23																																24	
SHEET TOTALS					3.400			19	0.9		16	3	7	6		1	2	1				1					1			20			316

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