COMPUTED BY: Matthew Stratton, EI DATE: 6/25/2025

CHECKED BY: Richard Hinton, PE DATE: 6/25/2025

PROJECT NO.	SHEET NO.
R-5759	3D-2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

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) 12	15	18	24	30	36	42	48	Do Not Use PVC	C. S. Pipe 12 (.064)	15 (.064)	18 (.064)	24 (.064)	30 (.079)	36 (.079)	42 (.109)	48 (.109)
Y2 24+50	16	RT	0523		1182.6																				
			0523	0524		1179.0	1175.6																		
Y2 22+75	16	RT	0525		1175.0																				
			0525	0527		1171.0	1160.0	0.8													72				
			0526	0525		1172.8	1171.0																		
L 27+45	25	LT	0529		1189.2																				
			0529	0516		1183.7	1183.0																		
Y1 12+95	22	LT	0531		1188.4																				
			0531	0511		1184.4	1184.2																		
L 32+90	48	LT	0533		1175.8																				
			0533	0521		1172.8	1172.7			24							X								
L 33+25	62	LT	0534		1176.0																				
			0534	0533		1173.0	1172.8			36							X								
RPD 12+55	6	LT	0535		1183.4																				
			0535	0536		1176.5	1176.0																		
DRW2 10+55	26	LT	0537		1185.1																				
			0537	0517		1180.9	1180.8																		
RPD 12+50	49	RT	0539		1180.0																				
			0539	0535		1177.5	1176.5																		
L 34+18	25	RT	0601		1175.8																				
			0601	0602		1172.3	1169.2																		
L 35+50	25	RT	0602		1172.2																				
			0602	0603		1169.2	1159.8																		
L 37+90	25	RT	0603		1162.8																				
			0603	0604		1159.8	1139.8	0.4																	
L 41+08	25	RT	0604		1142.8																				
			0604	0611		1139.8	1133.8	0.6																	
L 35+00	25	LT	0605		1173.5																				
			0605	0606		1168.7	1165.0																		
L 36+50	25	LT	0606		1169.0																				
			0606	0607		1165.0	1159.8	0.7																	
L 37+90	25	LT	0607		1162.8																				
			0607	0630		1159.8	1150.3	0.8																	
L 41+50	25	LT	0608		1139.9																				
			0608	0610		1136.9	1131.8	0.8																	
L 42+81	26	LT	0609		1131.2																				
			0609	0610		1128.2	1127.9																		
L 42+00	25	LT	0610		1136.5																				
			0610	0611		1126.6	1126.3																		
L 42+00	25	RT	0611		1138.0																				
			0611	0627		1126.3	1121.0	0.3																	
L 45+98	31	RT	0613		1119.3																				
			0613	0625		1109.3	1105.8																		
C3 11+42	2	RT	0614		1118.2																				
			0614	0624		1115.3	1113.7																		
L 45+97	19	LT	0615		1120.6																				
			0615	0622		1117.3	1116.7																		
C3 13+62	20	LT	0616		1122.9																				
			0616	0618		1119.9	1118.4																		
L 45+97	46	LT	0618		1121.3																				
SHEET TOTALS										60											72				

Line & Station	From	To	R. C. Pipe Class IV 12	15	18	24	30	36	42	48	R. C. Pipe Class V 12	15	18	24	Endwalls Std. 838.01 or Std. 838.11 (Unless Noted Otherwise) (CY)	Reinforced Endwalls (CY)	Drainage Structure Masonry (CY)	0' thru 5' (Each)	5' thru 10' A (Lin. Ft.)	10' and above B (Lin. Ft.)	C.B. Std. 840.01 or Std. 840.02	Grate Type E	F	G
Y2 24+50	0523																	1			1			1
	0523	0524		40																				
Y2 22+75	0525																	1			1			1
	0525	0527																						
	0526	0525				20																		
L 27+45	0529																	1	0.5		1			1
	0529	0516		164																				
Y1 12+95	0531																	1			1	1		
	0531	0511		52																				
L 32+90	0533																	1			1		1	
	0533	0521																						
L 33+25	0534																	1			1	1		
	0534	0533																						
RPD 12+55	0535																	1	1.9					
	0535	0536			104																			
DRW2 10+55	0537																	1			1			1
	0537	0517		44																				
RPD 12+50	0539																	1						
	0539	0535			56																			
L 34+18	0601																	1			1		1	
	0601	0602		132																				
L 35+50	0602																	1			1		1	
	0602	0603		240																				
L 37+90	0603																	1			1		1	
	0603	0604		316																				
L 41+08	0604																	1			1		1	
	0604	0611		92																				
L 35+00	0605																	1			1			1
	0605	0606		148																				
L 36+50	0606																	1			1			1
	0606	0607		140																				
L 37+90	0607																	1			1			1
	0607	0630		160																				
L 41+50	0608																	1			1			1
	0608	0610		48																				
L 42+81	0609																	1			1			1
	0609	0610		80																				
L 42+00	0610																	1	4.9		1			1
	0610	0611					48																	
L 42+00	0611																	1	5.0	1.7	1		1	
	0611	0627					156																	
L 45+98	0613																	1	5.0		1	1		
	0613	0625								88														
C3 11+42	0614																	1			1	1		
	0614	0624		36																				
L 45+97	0615																	1						
	0615	0622		20																				
C3 13+62	0616																	1						
	0616	0618		88																				
L 45+97	0618																	1			1	1		
SHEET TOTALS				1800	160	20	204			88								25	17.3	1.7	21	5	6	10

NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)

Line & Station	From	To	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 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	Angled Vane Grates and Frames Std. 840.33	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
Y2 24+50	0523																									
	0523	0524																								
Y2 22+75	0525																									
	0525	0527																								
	0526	0525																								
L 27+45	0529																							1		
	0529	0516																								
Y1 12+95	0531																									
	0531	0511																								
L 32+90	0533																									
	0533	0521																								
L 33+25	0534																									
	0534	0533																								
RPD 12+55	0535		1														1				1					
	0535	0536																								
DRW2 10+55	0537																									
	0537	0517																								
RPD 12+50	0539							1			1															
	0539	0535																								
L 34+18	0601																									
	0601	0602																								
L 35+50	0602																									
	0602	0603																								
L 37+90	0603																									
	0603	0604																								
L 41+08	0604																									
	0604	0611																								
L 35+00	0605																									
	0605	0606																								
L 36+50	0606																									
	0606	0607																								
L 37+90	0607																									
	0607	0630																								
L 41+50	0608																									
	0608	0610																								
L 42+81	0609																									
	0609	0610																								
L 42+00	0610																									
	0610	0611																								
L 42+00	0611																									
	0611	0627																								
L 45+98	0613																									
	0613	0625																								
C3 11+42	0614																									
	0614	0624																								
L 45+97	0615		1		1	1																		1		
	0615	0622																								
C3 13+62	0616																					1	1			
	0616	0618																								
L 45+97	0618																									
SHEET TOTALS			2		1	1		1			1						1				1	1	1	2		

Line & Station	From	To	Convert Existing C.B. to J.B.	Convert Existing C.B. to D.I.	Convert Existing D.I. to J.B.	Convert Existing J.B. to D.I.	Adjust C.B.	Adjust D.I.	Adjust M.H.	15" C.S. Elbow	18" C.S. Elbow	24" C.S. Elbow	30" C.S. Elbow	36" C.S. Elbow	Berm Ditch Outlet Std. 850.10 (Per Each)	Berm Ditch Outlet Std. 850.11 (Per Each)	Flowable Fill (CY)	Pipe Removal (Lin. Ft.)	Remarks
Y2 24+50	0523																		
	0523	0524																	
Y2 22+75	0525																		
	0525	0527										2							ROD & LUG W/ SLEEVE GASKETS
	0526	0525																	
L 27+45	0529																		
	0529	0516																	
Y1 12+95	0531																		
	0531	0511																	
L 32+90	0533																		
	0533	0521																	
L 33+25	0534																		
	0534	0533																	
RPD 12+55	0535																		
	0535	0536																	
DRW2 10+55	0537																		
	0537	0517																	
RPD 12+50	0539																		
	0539	0535																	
L 34+18	0601																		
	0601	0602																	
L 35+50	0602																		
	0602	0603																	
L 37+90	0603																		
	0603	0604																	
L 41+08	0604																		
	0604	0611																	
L 35+00	0605																		
	0605	0606																	
L 36+50	0606																		
	0606	0607																	
L 37+90	0607																		
	0607	0630																	
L 41+50	0608																		
	0608	0610																	
L 42+81	0609																		
	0609	0610																	
L 42+00	0610																		
	0610	0611																	
L 42+00	0611																		
	0611	0627																	
L 45+98	0613																		
	0613	0625																	
C3 11+42	0614																		
	0614	0624																	
L 45+97	0615																		
	0615	0622																	
C3 13+62	0616																		
	0616	0618																	
L 45+97	0618																		
SHEET TOTALS												2							

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

7S9M8H4