COMPUTED BY:	CJH	DATE:	3/11/2022
CHECKED BY:	WJW	DATE:	5/4/2022

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
I-5987A	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	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Side Drain Pipe (RCP, CSP, CAAP, HDPE, or PVC) SIZE 15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
THICKNESS OR GAUGE																		
		1109	1116		143.20	143.00												
LA 181+05	3 RT	1110		147.93														
		1110	1116		137.80	137.70												
LA 181+50	3 LT	1111		148.12														
		1111	1116		143.40	143.00	.5											
LA 181+50	3 RT	1112		147.96														
		1112	1111		143.90	143.80												
LA 183+00	3 LT	1113		148.55														
		1113	1111		144.20	143.40												
LA 183+00	3 RT	1114		148.38														
		1114	1113		144.30	144.20												
LA 181+00	105 LT	1115		142.30														
LA 181+05	3 LT	1116		148.10														
		1116	1115		137.70	137.00												
LA 181+00	118 RT	1117		143.50														
		1117	1110		138.20	137.80												
		1118	1119		138.00	137.00												
LA 172+28	74 RT	1118		148.00														
		1118	1119		143.50	142.10												
LA 181+94	74 RT	1120		147.59														
		1120	1121		143.40	141.50												
LA 184+83	120 RT	1122		143.00														
LA 182+58	105 LT	1123		142.30														
LA 187+00	3 RT	1201		148.50														
		1201	1213		144.40	139.30												
LA 189+00	3 RT	1202		147.86														
		1202	1203		143.40	142.70												
LA 190+50	3 RT	1203		147.53														
		1203	1205		142.70	142.50												
LA 191+00	3 LT	1204		147.63														
		1204	1207		142.40	142.00	.5											
LA 191+00	3 RT	1205		147.49														
		1205	1204		142.50	142.40												
LA 191+74	3 RT	1206		147.45														
		1206	1207		143.10	143.00												
LA 191+83	3 LT	1207		147.38														
		1207	1221		141.50	140.90												
LA 192+50	3 LT	1208		147.44														
		1208	1207		142.50	142.00												
LA 192+50	3 RT	1209		147.52														
		1209	1208		143.50	143.40												
LA 195+00	3 LT	1210		148.25														
		1210	1214		143.70	141.90	.9											
LA 195+00	3 RT	1211		148.28														
		1211	1210		144.00	143.70												
LA 199+30	104 LT	1215		146.50														
LA 199+59	108 RT	1216		147.00														
		1216	1217		141.70	141.50												
LA 199+44	3 RT	1217		150.51														
		1217	1218		141.50	141.40												
						SHEET TOTAL												

LINE & STATION	C. S. PIPE SIZE 15	18	24	30	36	42	48	R. C. PIPE CLASS III SIZE 15	18	24	30	36	42	48	R. C. PIPE CLASS IV SIZE 15	18	24	30	36	42	48
THICKNESS OR GAUGE	0.064	0.064	0.064	0.079	0.079	0.109	0.109														
															8						
LA 181+05																					
																					8
LA 181+50																					
															44						
LA 181+50																					
															8						
LA 183+00																					
															148						
LA 183+00																					
															8						
LA 181+00																					
LA 181+05																					
LA 181+00																					
LA 172+28																					
															49						
LA 181+94																					
	36																				
LA 184+83																					
LA 182+58																					
LA 187+00																					
LA 189+00																					
															148						
LA 190+50																					
															48						
LA 191+00																					
															80						
LA 191+00																					
															8						
LA 191+74																					
																12					
LA 191+83																					
LA 192+50																					
															64						
LA 192+50																					
															8						
LA 195+00																					
LA 195+00																					
															8						
LA 199+30																					
LA 199+59																					
LA 199+44																					
SHEET TOTAL	36														629	12					8

LINE & STATION	16" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL	18" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL	24" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL	30" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL	36" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL	42" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL	48" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL	16" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL	18" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL	24" WELDED STEEL PIPE 0.50" THICK, GRADE B NOT IN SOIL	30" WELDED STEEL PIPE 0.50" THICK, GRADE B NOT IN SOIL	36" WELDED STEEL PIPE 0.50" THICK, GRADE B NOT IN SOIL	42" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL	48" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL	ENDWALLS STD. 838.01 OR STD.838.11 (UNLESS OTHERWISE NOTED) CY	REINFORCED ENDWALLS CY	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. 840.20	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.32	J.B. STD. 840.31 OR 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 AND TWO GRATES STD. 840.37	M.H. STD. 840.51, STD. 840.52, OR STD.53	M.H. FRAME AND COVER STD. 840.54	TEMP STEEL PLATE COVER MASONARY DRAINAGE	15" C.S. ELBOW	15" SIDE DRAIN PIPE ELBOW	FLOWABLE FILL, C.Y.	PIPE REMOVAL LIN. FT.	REMARKS
							52							52																																						
LA 181+05																						1	5.0	0.1																												T.B. PRECAST DRAINAGE STRUCTURE (STD. 840.46)
LA 181+50																						1																														
LA 181+50																						1																														
LA 183+00																						1																														
LA 183+00																						1																														
LA 181+00																																																				
LA 181+05																						1	5.0	0.4																												T.B. PRECAST DRAINAGE STRUCTURE (STD. 840.46)
							52							52																																						
LA 181+00																																																				
							60							60																																						
							156							156																																						
LA 172+28																						1																														
LA 181+94																						1																														
LA 184+83																																																				
LA 182+58																																																				
LA 187+00																						1																														
	56							56																																											
LA 189+00																						1																														
LA 190+50																						1																														
LA 191+00																						1	0.2																														
LA 191+00																						1																														
LA 191+74																						1																														
LA 191+83																						1	0.9																														
		36							36																																										
LA 192+50																						1																														
LA 192+50																						1																														
LA 195+00																						1																														
	48							48																																											
LA 195+00																						1																														
LA 199+30																																																				
LA 199+59																																																				
							52							52																																						
LA 199+44																						1	4.0																														
							4							4																																						
SHEET TOTAL	104		36				376	104		36				376	36.0		20	15.1	0.5																								20	20					92.3		

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