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TGSZJR-LAPTOP

COMPUTED BY: Zachary Richard, PE DATE: 10/12/2022

CHECKED BY: David Petty, PE DATE: 11/17/2022

PROJECT NO.	SHEET NO.
A-0009CC	3D-5

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 / 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	C. S. PIPE 15 .064	18 .064	24 .064	30 .079	36 .079	42 .109	48 .109	R. C. PIPE CLASS III 18	24	30	36	42	48	R. C. PIPE CLASS IV 15	18	24	30	36	42
Y2 52+36	21	RT	4115		2298.6																																
			4115	4116		2295.0	2293.6																										52				
Y2 52+50	32	LT	4116		2297.1																																
			4116	4117		2293.6	2247.0	0.6												108																	
Y2 52+40	82	LT	4118																																		
Y2 41+38	49	LT	4119						60																												
Y2 55+00	21	RT	4201		2277.1																																
			4201	4203		2273.9	2269.8																									48					
Y2 55+50	46	RT	4202		2285.2																																
			4202	4203		2282.6	2269.1	0.5			24				X																						
Y2 55+50	21	RT	4203		2273.1																																
			4203	4204		2269.1	2254.0	0.8													96																
Y2 57+68	21	RT	4205		2255.7																																
			4205	4206		2252.5	2246.0		76							X	X																				
Y2 59+53	60	RT	4207		2224.3																																
			4207	4208		2222.3	2220.1	0.7			12				X																						
Y2 59+57	49	RT	4208		2222.1																																
			4208	4209																																	
Y2 62+79	32	LT	4210		2216.4																																
			4210	4220		2213.2	2210.7																									36					
Y2 61+50	28	RT	4211		2223.0																																
			4211	4212		2220.2	2204.4		196							X	X																				
Y2 63+50	26	RT	4212		2207.2																																
			4212	4213		2204.4	2204.2	1.2	8							X	X																				
Y2 63+50	19	RT	4213		2208.8																																
			4213	4215		2204.2	2196.5	0.5																								96					
Y2 64+50	24	RT	4214		2203.0																																
			4214	4215		2196.6	2196.5																									4					
Y2 64+50	20	RT	4215		2200.2																																
			4215	4217		2196.5	2183.5	1.4																								140					
Y2 65+95	24	RT	4216		2186.4																																
			4216	4217		2183.6	2183.5																									4					
Y2 65+95	20	RT	4217		2187.4																																
			4217	4218		2183.3	2167.7	0.8																									184				
Y2 67+83	20	RT	4218		2171.2																																
			4218	4219		2167.7	2134.7	3.7												88																	
Y2 63+15	32	LT	4220		2213.9																																
			4220	4213		2210.7	2205.6																									60					
Y2 59+03	105	LT	4224																																		
Y2 69+56	59	LT	4301		2159.1																																
			4301	4302		2156.3	2153.4		40							X	X																				
Y2 69+95	56	LT	4302		2155.4																																
			4302	4303		2153.2	2150.4	0.5																									76				
Y2 69+95	20	RT	4303		2153.9																																
			4303	4304		2150.4	2146.4	0.7																									48				
Y2 70+44	20	RT	4304		2149.9																																
			4304	4305		2146.4	2141.2	2.9		60						X	X																				
Y2 74+00	42	LT	4306		2124.1																																
			4306	4307		2121.1	2114.1																				84										
Y2 74+00	44	RT	4307		2118.4																																
SHEET TOTALS									380	60	36									196	96					84						388	360				

LINE & STATION	FROM	TO	36" CAAP, 0.075" THICK	42" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL	42" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL	24" PIPE REHABILITATION CIPP LINER	36" PIPE REHABILITATION CIPP LINER	42" PIPE REHABILITATION CIPP LINER	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)) 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	4-SIDED OTCB, SEE DETAIL SHEET 2D-5	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, 840.26, OR 840.45	G.D.I. TYPE "B" STD. 840.18, 840.27, OR 840.45	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. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22
Y2 52+36	4115									1											1		1		
	4115	4116																							
Y2 52+50	4116									1													1		
	4116	4117																							
Y2 52+40	4118									1															
Y2 41+38	4119																								
Y2 55+00	4201									1											1		1		
	4201	4203																							
Y2 55+50	4202																								
	4202	4203																							
Y2 55+50	4203									1											1		1		
	4203	4204																							
Y2 57+68	4205									1											1		1		
	4205	4206																							
Y2 59+53	4207																								
	4207	4208																							
Y2 59+57	4208																								
	4208	4209				144																			
Y2 62+79	4210									1													1		
	4210	4220																							
Y2 61+50	4211									1											1				1
	4211	4212																							
Y2 63+50	4212									1											1				1
	4212	4213																							
Y2 63+50	4213									1											1		1		
	4213	4215																							
Y2 64+50	4214									1	1.4										1				1
	4214	4215																							
Y2 64+50	4215									1													1		
	4215	4217																							
Y2 65+95	4216									1											1				1
	4216	4217																							
Y2 65+95	4217									1													1		
	4217	4218																							
Y2 67+83	4218									1													1		
	4218	4219																							
Y2 63+15	4220									1													1		
	4220	4213																							
Y2 59+03	4224									1															
Y2 69+56	4301									1								1	1						
	4301	4302																							
Y2 69+95	4302									1												1			1
	4302	4303																							
Y2 69+95	4303									1													1		
	4303	4304																							
Y2 70+44	4304									1													1		
	4304	4305																							
Y2 74+00	4306									1											1				1
	4306	4307																							
Y2 74+00	4307									1										1					1
SHEET TOTALS						144				23	1.4							1	1	1	10	1	13		7

LINE & STATION	FROM	TO	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	6" PVC PIPE (SPRING BOX)	SPRING BOX STD. 840.41	M.H. FRAME AND COVER STD. 840.54	PRECAST 4' DIA MH STD 840.52	T.B. G.D.I TYPE "A" SEE SHEET 2D-2	MIN DEPTH TYPE A SPECIAL DSN SEE SHEET 2D-1	15" C.S. ELBOW, 0.064" THICK	18" C.S. ELBOW, 0.064" THICK	24" C.S. ELBOW, 0.064" THICK	30" C.S. ELBOW, 0.064" THICK	36" C.S. ELBOW, 0.064" THICK	42" C.S. ELBOW, 0.064" THICK	48" C.S. ELBOW, 0.064" THICK	15" ELBOW	18" ELBOW	24" ELBOW	36" ELBOW	BERM DRAINAGE OUTLET STD. 850.10 (SY)	BERM DRAINAGE OUTLET STD. 850.11 (SY)	BERM DRAINAGE OUTLET 36" DSN, SHT 2D-3 (SY)	BERM DRAINAGE OUTLET 42" DSN, SHT 2D-4 (SY)	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	PIPE REMOVAL LIN. FT.	REMARKS
Y2 52+36	4115																													
	4115	4116																												
Y2 52+50	4116				1																									
	4116	4117											2																	
Y2 52+40	4118					64	1																							
Y2 41+38	4119																													
Y2 55+00	4201																													
	4201	4203																												
Y2 55+50	4202																								31						24" BDO
	4202	4203																				1									
Y2 55+50	4203																													
	4203	4204																												
Y2 57+68	4205																													
	4205	4206																												
Y2 59+53	4207																													
	4207	4208																												
Y2 59+57	4208																											0.5526		24" Pipe Collar
	4208	4209																												Reline 24" CMP
Y2 62+79	4210				1																									
	4210	4220																												
Y2 61+50	4211																													
	4211	4212																												
Y2 63+50	4212																													
	4212	4213																												
Y2 63+50	4213																													
	4213	4215																												
Y2 64+50	4214																													
	4214	4215																												
Y2 64+50	4215				1																									
	4215	4217																												
Y2 65+95	4216																													
	4216	4217																												
Y2 65+95	4217				1																									
	4217	4218																												
Y2 67+83	4218				1																									
	4218	4219											2																	
Y2 63+15	4220				1																									
	4220	4213																												
Y2 59+03	4224					76	1																							
Y2 69+56	4301																													
	4301	4302																												
Y2 69+95	4302																													
	4302	4303																												
Y2 69+95	4303				1																									
	4303	4304																												
Y2 70+44	4304				1																									
	4304	4305																												
Y2 74+00	4306																													
	4306	4307																												
Y2 74+00	4307																													
SHEET TOTALS					8	140	2						4									1			31				0.5526		

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