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TGSZJR-LAPTOP

COMPUTED BY:	Zachary Richard, PE	DATE:	3/23/2022
CHECKED BY:	David Petty, PE	DATE:	5/25/2022

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

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

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	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	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC
L 332+29	33 RT	2821		2789.1															
		2821	2822		2785.9	2781.3													
L 331+69	35 RT	2822		2784.5															
		2822	2823		2781.3	2777.9		56								X	X		
L 321+34	65 RT	2824			2704.3	2704.0		60											
L 333+30	27 LT	2901		2797.1															
		2901	2902		2794.8	2794.5		52								X	X		
L 333+90	43 LT	2903		2797.0															
		2903	2904		2794.0	2793.2													
L 333+80	33 RT	2904		2801.8															
		2904	2905		2793.2	2773.4	0.7												
L 335+29	54 LT	2906		2818.5															
		2906	2908		2816.5	2810.2	1.0			20					X				
L 335+40	30 LT	2907		2815.4															
		2907	2908		2814.1	2811.0		24							X				
L 335+19	39 LT	2908		2815.0															
		2908	2909		2810.2	2802.7	1.1			68					X				
L 334+50	26 LT	2909		2807.5															
		2909	2910		2802.7	2797.0	1.2			56					X				
L 336+00	34 RT	2911		2818.6															
		2911	2912		2815.4	2815.2		24								X	X		
L 337+50	30 LT	2913		2831.6															
		2913	2914		2828.6	2825.0													
L 339+37	84 LT	2915		2846.9															
		2915	2916		2843.4	2837.7	1.3						52		X				
L 339+57	39 LT	2916		2844.0															
		2916	2918		2837.2	2836.8													
L 339+17	33 RT	2917		2842.1															
		2917	2918		2838.9	2838.6													
L 339+75	33 RT	2918		2846.3															
		2918	2919		2836.8	2821.6	0.7												
L 340+60	50 LT	2920		2844.3															
		2920	2921		2841.8	2838.6	0.8				20				X				
L 340+64	29 LT	2921		2854.5															
		2921	2922																
L 341+70	62 RT	2923																	
L 344+25	26 LT	2924		2880.5															
		2924	2925		2877.5	2873.2													
L 344+20	33 RT	2925		2878.2															
		2925	2926		2873.2	2862.7	0.7												
L 344+67	41 LT	2927		2887.5															
		2927	2928		2884.7	2881.0		36							X				
L 346+54	34 RT	2929		2895.1															
		2929	2930		2890.6	2864.9	0.6												
L 337+41	72 LT	2931		2850.0															
		2931	2913		2848.5	2828.6													
L 341+25	29 LT	2932						48											
L 347+27	39 LT	3001		2895.5															
		3001	2929		2893.0	2890.6													
L 347+34	37 LT	3002		2896.7															
SHEET TOTALS								300		144	20		52						

STRUCTURE NUMBER FROM	TO	C. S. PIPE .064 15	.064 18	.064 24	.064 30	.064 36	.064 42	.064 48	R. C. PIPE CLASS III 15	18	24	30	36	42	48	R. C. PIPE CLASS IV 15	18	24	30	36	42	36" CAA PIPE, 0.075" THICK	48" CAA PIPE, 0.105" THICK	36" WELDED STEEL PIPE 0.5" THICK, GRADE B, IN SOIL	36" WELDED STEEL PIPE 0.5" THICK, GRADE B, NOT IN SOIL	18" PIPE REHABILITATION CIPP LINER	24" PIPE REHABILITATION CIPP LINER	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY
L 332+29	33 RT																											
																60												
L 331+69	35 RT																											
L 321+34	65 RT																											
L 333+30	27 LT																											
L 333+90	43 LT																											3.400
													76															
L 333+80	33 RT																											
						60																						
L 335+29	54 LT																											
L 335+40	30 LT																											
L 335+19	39 LT																											
L 334+50	26 LT																											
L 336+00	34 RT																											
L 337+50	30 LT																											
									84																			
L 339+37	84 LT																											4.500
L 339+57	39 LT																											
															72													
L 339+17	33 RT																											
																52												
L 339+75	33 RT																											
							48																					
L 340+60	50 LT																											2.300
L 340+64	29 LT																											
																											104	
L 341+70	62 RT	56																										
L 344+25	26 LT																											3.400
			60																									
L 344+20	33 RT																											
						36																						
L 344+67	41 LT																											
L 346+54	34 RT																											
				56																								
L 337+41	72 LT																											
		44																										
L 341+25	29 LT																											
L 347+27	39 LT																											2.300
		104																										
L 347+34	37 LT																											
SHEET TOTALS		100		56	96		48		84			76		72		112			104	60							104	15.900

STRUCTURE NUMBER FROM	TO	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: 10' AND ABOVE LIN. FT.	4-SIDED OTCB, SEE DETAIL SHEET 2D-1	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	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	6" HDPE PIPE (LF)	M.H. FRAME AND COVER STD. 840.54	TB PRECAST DRAINAGE STRUCTURE STD. 840.46	PRECAST 4' DIA MH STD 840.52	CONTRACTOR DESIGN 4' DIA MH OVER 30'	T.B. G.D.I TYPE "A" SEE SHEET 2D-3	CONVERT EXISTING D.I. TO J.B. SEE SHEET 2D-2	ADJUST D.I.	MIN DEPTH TYPE A SPECIAL DSN SEE SHEET 2D-7	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	48" C.A.A. ELBOW, 0.105" THICK	BERM DRAINAGE OUTLET STD. 850.10 (SY)	BERM DRAINAGE OUTLET STD. 850.11 (SY)	BERM DRAINAGE OUTLET 36" DSN,SHT 2D-4 (SY)	BERM DRAINAGE OUTLET 42" DSN,SHT 2D-5 (SY)	BERM DRAINAGE OUTLET 48" DSN,SHT 2D-6 (SY)	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	PIPE REMOVAL LIN. FT.	REMARKS
L 332+29	33 RT	1								1		1																																					
L 331+69	35 RT	1					1	1																																									
L 321+34	65 RT																																																
L 333+30	27 LT	1					1	1																																									
L 333+90	43 LT																																																
L 333+80	33 RT	1	3.6									1				1																																	
																																					2													
L 335+29	54 LT																																																
L 335+40	30 LT																																																
L 335+19	39 LT	1						1				1																																					
L 334+50	26 LT	1						1				1																																					
L 336+00	34 RT	1									1					1																																	
L 337+50	30 LT	1								1				1																																			
L 339+37	84 LT																																																
L 339+57	39 LT	1	1.8					1				1																																					
L 339+17	33 RT	1								1		1																																					
L 339+75	33 RT	1	4.5					1				1																																					
																																							2										
L 340+60	50 LT																																																
L 340+64	29 LT	1	5.0	6.0																	1	1																											
																																																	Reline 24" CMP
L 341+70	62 RT																																			2													
L 344+25	26 LT																																																
L 344+20	33 RT	1								1		1																																					
																																					2													
L 344+67	41 LT	1								1				1																																			
L 346+54	34 RT	1									1					1																																	
																																					2													
L 337+41	72 LT																																								11									
																																				1														
L 341+25	29 LT																																																
L 347+27	39 LT																																																
L 347+34	37 LT		2.7																		1					1	1																					Convert DI to JB w/ MH & raise 4.7'
SHEET TOTALS		15	17.6	6.0		2	2	4	5		7		5			3				2	1				1	1		3		2	4		2		11												

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