COMPUTED BY:	LMJ	DATE:	3/9/2022
CHECKED BY:	WKJ	DATE:	5/4/2022

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
I-5987A	3D-21

**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 %
		2701	2702		162.40	162.00	
LA2 429+00	5 LT	2701		166.40			
		2702	2703		162.00	156.60	
LA2 429+00	2 RT	2702		166.00			
LA2 429+78	CL						
		2704	2705		160.90	160.50	
LA2 424+00	5 LT	2704		164.90			
		2705	2706		160.50	155.60	
LA2 424+00	2 RT	2705		164.50			
		2707	2708		159.50	159.10	
LA2 419+25	5 LT	2707		163.50			
		2708	2709		159.10	154.60	
LA2 419+25	2 RT	2708		163.10			
		2801	2802		163.30	162.80	
LA2 439+30	5 LT	2801		167.30			
		2802	2804		162.80	162.30	.3
LA2 439+30	2 RT	2802		166.90			
		2803	2804		162.30	162.30	
LA2 438+15	5 LT	2803		167.00			
		2804	2806		162.30	162.00	.5
LA2 438+15	2 RT	2804		166.60			
		2805	2806		158.70	158.50	
LA2 437+74	92 LT	2805		162.20			
		2806	2807		158.50	158.30	
LA2 437+74	2 RT	2806		166.50			
LA2 437+74	92 RT	2807		161.80			
		2808	2809		162.50	162.50	
LA2 437+31	2 RT	2808		166.60			
		2809	2811		162.50	162.30	
LA2 437+31	5 LT	2809		167.00			
		2810	2811		158.70	158.50	
LA2 437+68	92 LT	2810		162.20			
		2811	2812		158.50	158.30	
LA2 437+68	5 LT	2811		167.00			
LA2 437+68	92 RT	2812		161.80			
LA2 437+23	87 RT						
LA2 438+26	90 LT						
		2813	2814		162.07	159.43	
LA2 440+85	74 LT	2813		167.07			
		2901	2902		163.10	163.10	
LA2 457+46	2 RT	2901		167.10			
		2902	2906		163.10	162.90	
LA2 457+46	5 LT	2902		167.10			
		2903	2904		163.10	163.10	
LA2 456+62	2 RT	2903		167.10			
		2904	2906		163.10	162.90	
LA2 456+62	5 LT	2904		167.10			
		2905	2906		163.10	163.10	
LA2 457+04	2 RT	2905		167.10			
		2906	2909		162.60	162.10	.4
							SHEET TOTAL

LINE & STATION	FROM	TO	Side Drain 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	C. S. PIPE 15 (0.064)	18 (0.064)	24 (0.064)	30 (0.079)	36 (0.079)	42 (0.109)	48 (0.109)	R. C. PIPE CLASS III 15	18	24	30	36	42	48	R. C. PIPE CLASS IV 15	18	24	30	36	42	48
	2701	2702																										8						
LA2 429+00	2701																																	
	2702	2703																																
LA2 429+00	2702																																	
LA2 429+78																																		
	2704	2705																										8						
LA2 424+00	2704																																	
	2705	2706																																
LA2 424+00	2705																																	
	2707	2708																										8						
LA2 419+25	2707																																	
	2708	2709																																
LA2 419+25	2708																																	
	2801	2802																										8						
LA2 439+30	2801																																	
	2802	2804																										112						
LA2 439+30	2802																																	
	2803	2804																										8						
LA2 438+15	2803																																	
	2804	2806																										40						
LA2 438+15	2804																																	
	2805	2806																															96	
LA2 437+74	2805																																	
	2806	2807																															88	
LA2 437+74	2806																																	
LA2 437+74	2807																																	
	2808	2809																										8						
LA2 437+31	2808																																	
	2809	2811																										36						
LA2 437+31	2809																																	
	2810	2811																															88	
LA2 437+68	2810																																	
	2811	2812																															96	
LA2 437+68	2811																																	
LA2 437+68	2812																																	
LA2 437+23																																		
LA2 438+26																																		
	2813	2814	32																															
LA2 440+85	2813																																	
	2901	2902																										8						
LA2 457+46	2901																																	
	2902	2906																										40						
LA2 457+46	2902																																	
	2903	2904																										8						
LA2 456+62	2903																																	
	2904	2906																										40						
LA2 456+62	2904																																	
	2905	2906																										8						
LA2 457+04	2905																																	
	2906	2909																											72					
SHEET TOTAL			32																									340	72				368	

LINE & STATION	FROM	TO	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
	2701	2702																			
LA2 429+00	2701																		1		
	2702	2703	56							56											
LA2 429+00	2702																		1		
LA2 429+78																					
	2704	2705																			
LA2 424+00	2704																		1		
	2705	2706	52							52											
LA2 424+00	2705																		1		
	2707	2708																			
LA2 419+25	2707																		1		
	2708	2709	52							52											
LA2 419+25	2708																		1		
	2801	2802																			
LA2 439+30	2801																		1		
	2802	2804																			
LA2 439+30	2802																		1		
	2803	2804																			
LA2 438+15	2803																		1		
	2804	2806																			
LA2 438+15	2804																		1		
	2805	2806																			
LA2 437+74	2805																3				
	2806	2807																			
LA2 437+74	2806																		1	3.1	
LA2 437+74	2807																3				
	2808	2809																			
LA2 437+31	2808																		1		
	2809	2811																			
LA2 437+31	2809																		1		
	2810	2811																			
LA2 437+68	2810																3				
	2811	2812																			
LA2 437+68	2811																		1	3.6	
LA2 437+68	2812																3				
LA2 437+23																					
LA2 438+26																					
	2813	2814																			
LA2 440+85	2813																		1		
	2901	2902																			
LA2 457+46	2901																		1		
	2902	2906																			
LA2 457+46	2902																		1		
	2903	2904																			
LA2 456+62	2903																		1		
	2904	2906																			
LA2 456+62	2904																		1		
	2905	2906																			
LA2 457+04	2905																		1		
	2906	2909																			
SHEET TOTAL			160							160							12		20	6.7	

LINE & STATION	FROM	TO	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	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
	2701	2702																											
LA2 429+00	2701																			1	1								
	2702	2703																											
LA2 429+00	2702																			1	1								
LA2 429+78																											6.0		
	2704	2705																											
LA2 424+00	2704																			1	1								
	2705	2706																											
LA2 424+00	2705																			1	1								
	2707	2708																											
LA2 419+25	2707																			1	1								
	2708	2709																											
LA2 419+25	2708																			1	1								
	2801	2802																											
LA2 439+30	2801																			1	1								
	2802	2804																											
LA2 439+30	2802																			1	1								
	2803	2804																											
LA2 438+15	2803																			1	1								
	2804	2806																											
LA2 438+15	2804																			1	1								
	2805	2806																											
LA2 437+74	2805																												
	2806	2807																											
LA2 437+74	2806																			1	1								T.B. PRECAST DRAINAGE STRUCTURE (STD. 840.46)
LA2 437+74	2807																												
	2808	2809																											
LA2 437+31	2808																			1	1								
	2809	2811																										52	
LA2 437+31	2809																			1	1								
	2810	2811																											
LA2 437+68	2810																												
	2811	2812																											
LA2 437+68	2811																			1	1								T.B. PRECAST DRAINAGE STRUCTURE (STD. 840.46)
LA2 437+68	2812																												
LA2 437+23																											12.0		
LA2 438+26																											12.0		
	2813	2814																											
LA2 440+85	2813																			1	1								
	2901	2902																											
LA2 457+46	2901																			1	1								
	2902	2906																											
LA2 457+46	2902																			1	1								
	2903	2904																											
LA2 456+62	2903																			1	1								
	2904	2906																											
LA2 456+62	2904																			1	1								
	2905	2906																											
LA2 457+04	2905																			1	1								
	2906	2909																											
SHEET TOTAL																				20	20						30.0	52	

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