COMPUTED BY:	VHB	DATE:	8/24/2021
CHECKED BY:	VHB	DATE:	8/24/2021

PROJECT NO.	SHEET NO.
U-4405A	3D-7

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) 12	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 61+39	49	LT	0720		215.9																
			0720	0825		209.3	208.3														
L 56+75	50	RT	0722		219.5																
			0722	0713		216.5	216.0														
L 63+50	5	LT	0801		215.0																
			0801	0824		211.9	208.8														
L 64+55	78	RT	0802		211.5																
			0802	0804		210.0	209.6	0.5		24											
L 64+70	50	RT	0803		214.9																
			0803	0804		211.6	209.9			20											
L 64+75	67	RT	0804		213.0																
			0804	0805		209.6	209.6				12										
L 64+88	67	RT	0805		212.3																
L 66+25	5	LT	0806		212.3																
			0806	0824		209.1	208.8														
L 65+30	38	LT	0807		212.1																
			0807	0812		205.9	205.3														
L 65+50	63	LT	0808		210.3																
			0808	0807		207.8	207.7			32											
L 67+21	68	RT	0809		211.2																
			0809	0813		207.0	206.1	0.5			36										
L 67+55	13	RT	0810		211.6																
			0810	0812		205.4	205.3														
L 67+55	50	RT	0811		212.2																
			0811	0810		205.5	205.4														
L 67+55	49	LT	0812		209.8																
			0812	0815		203.8	203.3														
L 67+55	74	RT	0813		208.6																
			0813	0811		205.6	205.5					24									
L 68+25	12	RT	0814		210.9																
			0814	0810		207.7	207.5														
L 69+10	50	LT	0815		208.6																
			0815	0819		203.0	199.3														
L 69+10	65	LT	0816		208.8																
			0816	0815		205.8	205.6			16											
L 71+30	74	RT	0817		205.8																
			0817	0818		203.6	203.5			16											
L 71+30	57	RT	0818		206.5																
			0818	0822		203.5	199.1														
L 73+00	50	LT	0819		204.5																
			0819	0904		199.3	195.8														
L 73+00	1	RT	0820		205.5																
			0820	0819		202.3	201.5														
L 73+52	83	RT	0821		201.4																
			0821	0822		199.2	199.1			24											
L 73+63	60	RT	0822		203.4																
			0822	0902		198.8	198.3														
L 74+40	1	RT	0823		203.5																
			0823	0901		200.4	199.7														
L 65+30	6	LT	0824		213.2																
SHEET TOTALS										132	48	24									

LINE & STATION	FROM	TO	C. S. PIPE 12 (.064)	C. S. PIPE 15 (.064)	C. S. PIPE 18 (.064)	C. S. PIPE	R. C. PIPE CLASS III 12	15	48	R. C. PIPE CLASS IV 12	15	18	24	30	36	42	48	30" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL	30" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL	36" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL	36" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL	15" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY
L 61+39	0720																						
	0720	0825													148								
L 56+75	0722																						
	0722	0713									124												
L 63+50	0801																						
	0801	0824									180												
L 64+55	0802																						
	0802	0804																					
L 64+70	0803																						
	0803	0804																					
L 64+75	0804																						
	0804	0805																					
L 64+88	0805																						
L 66+25	0806																						
	0806	0824									92												
L 65+30	0807																						
	0807	0812														220							
L 65+50	0808																						
	0808	0807																					
L 67+21	0809																						
	0809	0813																					
L 67+55	0810																						
	0810	0812												60									
L 67+55	0811																						
	0811	0810												36									
L 67+55	0812																						
	0812	0815															152						
L 67+55	0813																						
	0813	0811																					
L 68+25	0814																						
	0814	0810									68												
L 69+10	0815																						
	0815	0819															388						
L 69+10	0816																						
	0816	0815																					
L 71+30	0817																						
	0817	0818																					
L 71+30	0818																						
	0818	0822									232												
L 73+00	0819																						
	0819	0904															248						
L 73+00	0820																						
	0820	0819									48												
L 73+52	0821																						
	0821	0822																					
L 73+63	0822																						
	0822	0902										128											
L 74+40	0823																						
	0823	0901									52												
L 65+30	0824																						
SHEET TOTALS											796	128	96	148	220	788							

LINE & STATION	FROM	TO	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		CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	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. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	15" SLOTTED DRAIN	FRAME W/ GRATE FOR DRIVEWAY STD. 840.30	J.B. STD. 840.31 OR STD. 840.32	T.B.G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54
L 61+39	0720		1	1.5		1			1																			
	0720	0825																										
L 56+75	0722		1			1		1																				
	0722	0713																										
L 63+50	0801		1								1			1	1													
	0801	0824																										
L 64+55	0802																											
	0802	0804																										
L 64+70	0803		1			1		1																				
	0803	0804																										
L 64+75	0804		1																				1					1
	0804	0805																										
L 64+88	0805																											
L 66+25	0806		1								1			1	1													
	0806	0824																										
L 65+30	0807		1	1.2		1			1																			
	0807	0812																										
L 65+50	0808		1											1	1													
	0808	0807																										
L 67+21	0809		1																				1					1
	0809	0813																										
L 67+55	0810		1	1.2							1			1	1													
	0810	0812																										
L 67+55	0811		1	1.7		1		1																				
	0811	0810																										
L 67+55	0812		1	1.0		1			1																			
	0812	0815																										
L 67+55	0813		1											1	1													
	0813	0811																										
L 68+25	0814		1								1			1	1													
	0814	0810																										
L 69+10	0815		1	0.6		1			1																			
	0815	0819																										
L 69+10	0816		1											1	1													
	0816	0815																										
L 71+30	0817		1											1	1													
	0817	0818																										
L 71+30	0818		1			1		1																				
	0818	0822																										
L 73+00	0819		1	0.3		1			1																			
	0819	0904																										
L 73+00	0820		1								1			1	1													
	0820	0819																										
L 73+52	0821		1											1	1													
	0821	0822																										
L 73+63	0822		1			1		1																				
	0822	0902																										
L 74+40	0823		1								1			1	1													
	0823	0901																										
L 65+30	0824		1								1			1	1													
SHEET TOTALS			24	7.5		10		5	5		7			12	12								2					2

LINE & STATION	FROM	TO	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING D.I. TO J.B.	ADJUST C.B.	ADJUST D.I.	ADJUST JB W/MH	15" C.S. ELBOW	18" C.S. ELBOW	12" DRAINAGE PIPE ELBOW	15" DRAINAGE PIPE ELBOW	24" DRAINAGE PIPE ELBOW	30" DRAINAGE PIPE ELBOWS	48" DRAINAGE PIPE ELBOW	PIPE CLEAN OUT CY	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
L 61+39	0720																			
	0720	0825																		
L 56+75	0722																			
	0722	0713																		
L 63+50	0801																			
	0801	0824																		
L 64+55	0802																			
	0802	0804																		
L 64+70	0803																			
	0803	0804																		
L 64+75	0804																			
	0804	0805																		
L 64+88	0805																0.4465			
L 66+25	0806																			
	0806	0824																		
L 65+30	0807																			
	0807	0812																		
L 65+50	0808																			
	0808	0807																		
L 67+21	0809																			
	0809	0813																		
L 67+55	0810																			
	0810	0812																		
L 67+55	0811																			
	0811	0810																		
L 67+55	0812																			
	0812	0815																		
L 67+55	0813																			
	0813	0811																		
L 68+25	0814																			
	0814	0810																		
L 69+10	0815																			
	0815	0819																		
L 69+10	0816																			
	0816	0815																		
L 71+30	0817																			
	0817	0818																		
L 71+30	0818																			
	0818	0822																		
L 73+00	0819																			
	0819	0904																		
L 73+00	0820																			
	0820	0819																		
L 73+52	0821																			
	0821	0822																		
L 73+63	0822																			
	0822	0902																		
L 74+40	0823																			
	0823	0901																		
L 65+30	0824																			
SHEET TOTALS																	0.4465			

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

Z1501