RAL-2TK9470H0P

COMPUTED BY: MKD DATE: 09/13/2021

CHECKED BY: WDY DATE: 09/14/2021

PROJECT NO.	SHEET NO.
U2579-AB	3D-4

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	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %
Y4 40+48	100 RT	0656					
Y4 39+00	71 LT	0657		942.2			
		0657	0658		940.0	939.1	0.4
Y4 39+00	53 LT	0658		943.4			
		0658	0618		938.4	937.7	0.4
Y4 38+92	53 LT	0659		942.3			
		0659	0658		938.4	938.4	
Y4 39+00	41 RT	0660		942.5			
		0660	0617		938.3	937.9	
Y4 35+40	97 LT	0661		949.0			
		0661	0666		946.7	945.2	
Y4 38+22	53 LT	0662		942.7			
		0662	0659		938.8	938.4	
Y4 36+90	53 LT	0663		944.8			
		0663	0662		940.4	939.3	0.6
Y4B 11+32	12 RT	0664		948.3			
		0664	0631		944.3	944.2	0.4
Y4WB 21+85	37 LT	0665		946.3			
		0665	0663		942.1	940.6	0.5
Y4 35+40	76 LT	0666		949.4			
		0666	0665		945.2	942.1	0.3
Y4WB 20+60	25 LT	0667		949.7			
		0667	0666		945.5	945.2	
Y4 36+90	70 LT	0668		944.7			
		0668	0663		942.0	940.6	
Y4SPD1 24+57	14 RT	0669		949.7			
		0669	0670		944.6	942.7	
Y4SPD1 23+30	14 RT	0670		949.1			
		0670	0671		942.7	941.5	
L 725+00	82 LT	0673		932.9			
		0673	0677		929.4	929.0	
Y1B 36+00	28 LT	0675		957.0			
		0675	0603		951.7	949.4	0.9
Y1B 36+00	49 LT	0676		953.2			
		0676	0675		953.2	951.7	0.3
L 725+00	0 CL	0677		933.6			
		0677	6106		928.5	927.9	
Y1B 35+50	94 LT	0678		958.6			
		0678	0637		952.5	951.9	
L 729+00	91 LT	0679		934.0			
		0679	0681		931.0	927.0	
L 729+00	0 CL	0681		936.2			
		0681	0704		926.0	923.6	0.3
L 729+00	91 RT	0683		934.1			
		0683	0681		931.1	927.0	
Y4 25+70	66 RT	0684		967.5			
		0684	0698		962.1	959.4	
Y4 23+25	52 RT	0685		966.6			
		0685	0697		963.4	962.9	
Y4 23+15	53 LT	0686		967.0			
							SHEET TOTALS

SIZE / THICKNESS OR GAUGE

FROM	TO	Side Drain Pipe (RCP, CSP, CAAP, HDPE, PVC, or PP PIPE) 15	18	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	DO NOT USE PP PIPE	C. S. PIPE 15 .064	18 .064	24 .064	30 .079	36 .079	42 .109
0656															
0657															
0657	0658														
0658															
0658	0618														
0659															
0659	0658														
0660															
0660	0617														
0661															
0661	0666														
0662															
0662	0659														
0663															
0663	0662														
0664															
0664	0631														
0665															
0665	0663														
0666															
0666	0665														
0667															
0667	0666														
0668															
0668	0663														
0669															
0669	0670														
0670															
0670	0671														
0673															
0673	0677														
0675															
0675	0603														
0676															
0676	0675														
0677															
0677	6106														
0678															
0678	0637														
0679															
0679	0681														
0681															
0681	0704														
0683															
0683	0681														
0684															
0684	0698														
0685															
0685	0697														
0686															
SHEET TOTALS															

FROM	TO	R. C. PIPE CLASS III 12	15	18	24	30	36	42	48	R. C. PIPE CLASS IV 15	18	24	30	36	42	48	R. C. PIPE CLASS V 42	24" WELDED STEEL PIPE, IN SOIL(OUT OF SOIL)	30" WELDED STEEL PIPE, IN SOIL (OUT OF SOIL)	42" WELDED STEEL PIPE, IN SOIL (OUT OF SOIL)	48" WELDED STEEL PIPE, IN SOIL (OUT OF SOIL)	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY
0656																						
0657																						
0657	0658		16																			
0658																						
0658	0618											80										
0659																						
0659	0658											8										
0660																						
0660	0617									80												
0661																						
0661	0666									20												
0662																						
0662	0659											68										
0663																						
0663	0662										132											
0664																						
0664	0631				44																	
0665																						
0665	0663									60												
0666																						
0666	0665									92												
0667																						
0667	0666									52												
0668																						
0668	0663		16																			
0669																						
0669	0670										120											
0670																						
0670	0671			48																		
0673																						
0673	0677			80																		
0675																						
0675	0603			96																		
0676																						
0676	0675			24																		
0677																						
0677	6106				124																	
0678																						
0678	0637										36											
0679																						
0679	0681			92																		
0681																						
0681	0704					464																
0683																						
0683	0681			92																		
0684																						
0684	0698									88												
0685																						
0685	0697									84												
0686																						
SHEET TOTALS			32	432	168	464				476	288	156										

QUANTITIES FOR DRAINAGE STRUCTURES — NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B). FRAME, GRATES, AND HOOD STD. 840.03 — GRATE TYPE.

FROM	TO	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	E	F	G	CONCRETE TRANSITIONAL D.I. STD. 852.04 OR STD. 852.06	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. (W.S. FLAT) FRAME W/ 2 GRA. STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRA. STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRA. STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRA. STD. 840.24	J.B. STD. 840.31 OR STD. 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 WITH TWO GRATES STD. 840.37	PIPE CLEANOUT (PER EACH)	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING C.B. TO D.I.	CONVERT EXISTING D.I. TO J.B.	ADJUST D.I.
0656																															
0657		1									1	1																			
0657	0658																														
0658		1	0.1		1	1																									
0658	0618																														
0659		1			1			1																							
0659	0658																														
0660		1			1	1																									
0660	0617																														
0661		1									1	1																			
0661	0666																														
0662		1			1			1																							
0662	0659																														
0663		1			1			1																							
0663	0662																														
0664																											1	1			
0664	0631																														
0665		1			1			1																							
0665	0663																														
0666		1			1			1																							
0666	0665																														
0667		1			1			1																							
0667	0666																														
0668		1									1	1																			
0668	0663																														
0669		1	0.1		1		1																								
0669	0670																														
0670		1	1.4		1			1																							
0670	0671																														
0673		1												1				1													
0673	0677																														
0675		1	0.4		1		1																								
0675	0603																														
0676																															
0676	0675																														
0677		1	0.1										1					1													
0677	6106																														
0678		1	1.1		1	1																									
0678	0637																														
0679		1												1				1													
0679	0681																														
0681		1	5.0	0.3									1					1													
0681	0704																														
0683		1												1				1													
0683	0681																														
0684		1	0.4		1		1																								
0684	0698																														
0685		1			1			1																							
0685	0697																														
0686		1	1.4		1		1																								
SHEET TOTALS		23	10.0	0.3	15	3	4	8			3	3	2	3				5									1	1			

FROM	TO	15" C.S. ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	30" C.S. ELBOW	36" C.S. ELBOW	42" C.S. ELBOW	BERM DITCH OUTLET STD. 850.10 (PER EACH)	##" SLUICE GATE (42" SIZE SLUICE GATE)	TRASH RACK	PREFORMED SCOUR HOLE (PER EACH)		FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	PIPE REMOVAL LIN. FT.	REMARKS
0656																
0657																
0657	0658															
0658																
0658	0618															
0659																
0659	0658															
0660																
0660	0617															
0661																
0661	0666															
0662																
0662	0659															
0663																
0663	0662															
0664																
0664	0631															
0665																
0665	0663															
0666																
0666	0665															
0667																
0667	0666															
0668																
0668	0663															
0669																
0669	0670															
0670																
0670	0671															
0673																
0673	0677															
0675																
0675	0603															
0676																
0676	0675															
0677																
0677	6106															
0678																
0678	0637															
0679																
0679	0681															
0681																
0681	0704															
0683																
0683	0681															
0684																
0684	0698															
0685																
0685	0697															
0686																
SHEET TOTALS																

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