WKST1

COMPUTED BY: RBR DATE: 6/15/2018

CHECKED BY: ECOLOGICAL ENGINEERING, LLP DATE: 6/15/2018

PROJECT NO.	SHEET NO.
U-4405	3D-26

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	C. S. PIPE 12 .064	15 .064	18 .064		R. C. PIPE CLASS III 12	15	48	R. C. PIPE CLASS IV 12	15	18	24	30	36	42	48
		2136	2135		209.7	209.0																							40						
L 236+22	44 LT	2138		210.5																															
		2138	2105		205.7	205.2																									196				
L 240+32	50 LT	2139		211.6																															
		2139	2124		208.4	208.2																							20						
L 237+30	85 LT	2140		210.5																															
		2140	2138		207.1	206.2	0.6																							116					
L 245+60	44 LT	2201		212.3																															
		2201	2135		209.3	209.0																							84						
L 245+60	55 RT	2202		212.0																															
		2202	2131		203.8	203.1																												260	
L 246+62	56 RT	2203		212.3																															
		2203	2202		204.1	203.8																												100	
L 246+77	28 RT	2204		211.3																															
		2204	2203		209.0	208.9																							32						
L 247+31	76 LT	2205		213.1																															
L 247+48	66 LT	2206		212.6																															
L 247+61	54 RT	2207		212.8																															
		2207	2203		204.4	204.1																												96	
Y28 10+71	36 LT	2208		212.9																															
		2208	2207		209.7	209.2	0.7																						16						
L 248+64	3 RT	2209		214.2																															
		2209	2210		206.9	206.7																								52					
L 248+64	55 RT	2210		212.9																															
		2210	2207		204.7	204.4																												100	
L 248+64	56 LT	2211		212.9																															
		2211	2209		207.0	206.9																								56					
L 249+20	3 RT	2212		214.2																															
		2212	2209		211.0	210.8																							56						
L 250+07	58 RT	2213		213.3																															
		2213	2210		208.0	207.6																											140		
L 250+94	60 LT	2215		213.5																															
		2215	2211		208.0	207.3																							228						
RPB 32+50	53 RT	2216		212.6																															
		2216	2214		208.1	207.5				96																									
L 251+13	107 RT	2217		213.8																															
		2217	2213		210.8	210.3			116																										
RPB 33+78	44 RT	2218		210.8																															
		2218	2215		208.1	208.0			36																										
L 251+60	197 RT	2219		215.8																															
L 251+62	57 RT	2220		214.0																															
		2220	2213		209.0	208.5																											156		
L 251+91	75 RT	2221		214.0																															
		2221	2220		210.1	210.0																									36				
RPB 32+50	82 LT	2222		210.8																															
		2222	2216		208.5	208.1				136																									
L 251+95	50 LT	2223		214.3																															
		2223	2215		211.3	210.5																							100						
L 250+62	1 LT	2224		214.6																															
		2224	2212		211.4	211.0																							140						
SHEET TOTALS									152	232																			716	224	232		296	556	

LINE & STATION	FROM	TO	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	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
	2136	2135																																
L 236+22	2138								1			1		1																				
	2138	2105																																
L 240+32	2139								1											1	1													
	2139	2124																																
L 237+30	2140								1											1	1													
	2140	2138																																
L 245+60	2201								1			1		1																				
	2201	2135																																
L 245+60	2202								1	3.2		1			1																			
	2202	2131																																
L 246+62	2203								1	3.2		1			1																			
	2203	2202																																
L 246+77	2204																																	
	2204	2203																																
L 247+31	2205																																	
L 247+48	2206								1			1		1																				
L 247+61	2207								1	3.4																					1			1
	2207	2203																																
Y28 10+71	2208								1			1			1																			
	2208	2207																																
L 248+64	2209								1	2.3							1			1	1													
	2209	2210																																
L 248+64	2210								1	3.2		1			1																			
	2210	2207																																
L 248+64	2211								1	0.9		1		1																				
	2211	2209																																
L 249+20	2212								1								1			1	1													
	2212	2209																																
L 250+07	2213								1	0.3		1			1																			
	2213	2210																																
L 250+94	2215								1	0.5		1		1																				
	2215	2211																																
RPB 32+50	2216								1														1		1									
	2216	2214																																
L 251+13	2217								1			1		1																				
	2217	2213																																
RPB 33+78	2218								1														1		1									
	2218	2215																																
L 251+60	2219								1											1	1													
L 251+62	2220								1																						1			1
	2220	2213																																
L 251+91	2221								1											1	1													
	2221	2220																																
RPB 32+50	2222								1										1															
	2222	2216																																
L 251+95	2223								1			1		1																				
	2223	2215																																
L 250+62	2224								1								1			1	1													
	2224	2212																																
SHEET TOTALS									24	17.0		12		7	5		3		1	7	7		2		2						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
	2136	2135																		
L 236+22	2138																			
	2138	2105																		
L 240+32	2139																			
	2139	2124																		
L 237+30	2140																			
	2140	2138																		
L 245+60	2201																			
	2201	2135																		
L 245+60	2202																			
	2202	2131																		
L 246+62	2203																			
	2203	2202																		
L 246+77	2204																	0.3990			
	2204	2203																		
L 247+31	2205						1													
L 247+48	2206																			
L 247+61	2207																			
	2207	2203																		
Y28 10+71	2208																			
	2208	2207																		
L 248+64	2209																			
	2209	2210																		
L 248+64	2210																			
	2210	2207																		
L 248+64	2211																			
	2211	2209																		
L 249+20	2212																			
	2212	2209																		
L 250+07	2213																			
	2213	2210																		
L 250+94	2215																			
	2215	2211																		
RPB 32+50	2216																			
	2216	2214																		
L 251+13	2217																			
	2217	2213																		
RPB 33+78	2218																			
	2218	2215																		
L 251+60	2219																			
L 251+62	2220																			
	2220	2213																		
L 251+91	2221																			
	2221	2220																		
RPB 32+50	2222																			
	2222	2216																		
L 251+95	2223																			
	2223	2215																		
L 250+62	2224																			
	2224	2212																		
SHEET TOTALS							1										0.3990			

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