WKST1

COMPUTED BY: RBR DATE: 6/15/2018

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

PROJECT NO.	SHEET NO.
U-4405	3D-27

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 %
L 252+19	114	RT	2225		215.2			
			2225	2221		210.9	210.6	
L 252+37	116	RT	2226		214.0			
			2226	2225		211.0	210.9	
L 252+00	1	LT	2227		215.2			
			2227	2229		212.0	211.7	
L 253+12	50	RT	2228		215.2			
			2228	2220		209.8	209.3	
L 253+12	8	LT	2229		215.9			
			2229	2228		211.7	211.5	
L 253+12	50	LT	2230		215.2			
			2230	2229		212.2	212.0	
L 255+25	50	RT	2231		216.7			
			2231	2228		212.2	210.9	
L 254+48	9	LT	2232		217.1			
			2232	2234		213.9	213.6	
L 255+25	50	LT	2233		216.7			
			2233	2234		213.0	212.9	
L 255+25	9	LT	2234		217.7			
			2234	2231		212.9	212.7	
L 256+40	68	LT	2235		217.8			
			2235	2236		215.1	214.5	
L 256+41	54	LT	2236		217.5			
			2236	2233		214.2	213.5	
L 256+42	50	RT	2237		219.4			
			2237	2231		212.6	212.3	
L 256+73	61	RT	2238		218.8			
			2238	2237		215.1	215.0	
L 256+79	74	RT	2239		218.0			
			2239	2238		215.4	215.3	0.3
L 257+69	13	RT	2240		220.2			
			2240	2241		214.1	214.0	
L 257+69	50	RT	2241		220.9			
			2241	2237		213.5	213.1	
L 257+69	13	LT	2242		219.1			
			2242	2240		215.9	215.9	
L 258+56	13	RT	2301		220.1			
			2301	2240		214.4	214.1	
L 258+85	13	RT	2302		220.0			
			2302	2301		214.5	214.4	
L 259+30	61	LT	2303		218.0			
			2303	2302		214.7	214.5	
L 260+25	50	RT	2304		219.0			
			2304	2241		215.2	214.4	
L 260+25	7	RT	2305		219.6			
			2305	2304		216.0	215.9	
L 260+55	56	LT	2306		218.4			
			2306	2303		215.4	215.0	
L 260+83	50	RT	2307		218.6			
			2307	2304		215.4	215.2	

SIZE / THICKNESS OR GAUGE

FROM	TO	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
2225	2221																							48					
2226	2225			20																									
2227	2229																						112						
2228	2220																										148		
2229	2228																						56						
2230	2229																						40						
2231	2228																									212			
2232	2234																						76						
2233	2234																								40				
2234	2231																								56				
2235	2236		16																										
2236	2233																							116					
2237	2231																									116			
2238	2237			36																									
2239	2238		12																										
2240	2241																							36					
2241	2237																								128				
2242	2240																						24						
2301	2240																							84					
2302	2301																							28					
2303	2302																							84					
2304	2241																							256					
2305	2304																						40						
2306	2303																						124						
2307	2304																							56					
SHEET TOTALS			28	56																			472	708	224	328	148		

FROM	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	
2225							1			1	1			
2226							1							
2227							1							
2228							1	0.4		1			1	
2229							1							
2230							1			1		1		
2231							1			1			1	
2232							1							
2233							1			1		1		
2234							1							
2235							1							
2236							1			1			1	
2237							1	1.7		1			1	
2238							1							
2239							1							
2240							1	1.1						
2241							1	2.3		1	1			
2242							1							
2301							1	0.7						
2302							1	0.5						
2303							1			1	1			
2304							1			1		1		
2305							1							
2306							1			1		1		
2307							1			1	1			
SHEET TOTALS							25	6.7		12	4	4	4	

FROM	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	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
2226							1		1																											
2227	1			1	1																															
2229	1			1	1																															
2232	1			1	1																															
2234	1			1	1																															
2235							1		1																											
2238													1					1																		
2239							1		1																											
2240	1			1	1																															
2242	1			1	1																															
2301	1			1	1																															
2302	1			1	1																															
2305	1			1	1																															
SHEET TOTALS	9			9	9		3		3				1					1																		

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