MOORECO

COMPUTED BY:	C.MOORE	DATE:	9/1/2016
CHECKED BY:	S. BONDOR	DATE:	9/1/2016

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-3440	3D-4

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 %	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
		0704	0708		691.0	677.2	0.8				300						X	X		
L 57+45	57 LT	0705		696.6																
		0705	0704		691.6	691.0	0.5				108						X	X	X	X
L 60+11	56 LT	0706		682.5																
		0706	0703		678.3	678.2				16										
L 61+81	41 RT	0707		675.0																
		0707	0810		669.5	665.3	0.5					200					X	X		
L 60+11	41 RT	0708		682.7																
		0708	0707		677.2	669.5	0.5					168					X	X		
L 53+25	41 LT	0709		718.0																
		0709	0710		713.4	705.4	0.8			160							X	X		
L 54+85	41 LT	0710		709.9																
		0710	0712		705.4	695.2	1.3			180							X	X		
L 54+84	81 LT	0711		723.0																
		0711	0710		718.8	705.4														
L 56+60	84 LT	0712		700.3																
		0712	0705		695.2	692.1	0.4				88						X	X	X	X
L 61+82	40 LT	0713		675.0																
		0713	0828		670.7	666.2			168								X	X		
L 65+32	41 LT	0801		669.4																
		0801	0800		664.7	664.6						40								
L 64+78	41 LT	0802		669.2																
		0802	0829		664.9	664.9						12					X	X		
L 67+26	41 LT	0803		671.5																
		0803	0804		667.3	658.6														
L 66+96	41 RT	0805		671.2																
		0805	0806		666.9	659.0														
L 69+36	41 RT	0807		672.6																
		0807	0808		669.6	661.5														
L 73+90	108 RT	0809		673.5																
		0809	0826		669.5	669.3						60					X	X	X	X
L 63+84	41 RT	0810		670.3																
		0810	0830		665.3	663.8	0.5					96					X	X		
Y7 11+38	17 RT	0812		675.7																
		0812	0826		671.4	669.3			36								X	X		
L 70+88	41 LT	0815		671.6																
		0815	0814		666.6	657.9	0.4													
L 71+38	41 LT	0816		671.5																
		0816	0815		667.0	666.9				52							X	X		
L 70+88	12 RT	0817		672.7																
		0817	0835		668.4	667.9			24								X	X	X	X
L 71+38	10 RT	0818		673.0																
		0818	0817		668.7	668.4			52								X	X	X	X
L 74+09	41 LT	0819		677.4																
		0819	0820		673.2	673.0			52								X	X	X	X
L 74+09	12 RT	0820		679.1																
		0820	0825		673.0	672.8			52								X	X	X	X
L 70+80	12 RT	0823		672.7																
		0823	0817		668.5	668.4			8								X	X	X	X
L 74+15	60 RT	0825		677.0																
							SHEET TOTALS		392	408	496	576								

SIZE / THICKNESS OR GAUGE

FROM	TO	C. S. PIPE 12 .064	15 .064	18 .064	24 .064	30 .079	36 .079	42 .109	48 .109	R. C. PIPE CLASS III 12	15	18	24	30	R. C. PIPE CLASS IV 12	15	48	54	60	42" WELDED STEEL PIPE 0.1094" THICK GRADE B NOT IN SOIL	42" WELDED STEEL PIPE 0.1094" THICK GRADE B IN SOIL	36" WELDED STEEL PIPE 0.1094" THICK, GRADE B NOT IN SOIL	36" WELDED STEEL PIPE 0.1094" THICK, GRADE B IN SOIL	15" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	DRAINAGE STRUCTURE MASONRY FT	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	
0704	0708																																	
0705																											1			1			1	
0705	0704																																	
0706																											1							
0706	0703																																	
0707																											1	0.5		1		1		
0707	0810																																	
0708																											1	0.5		1		1		
0708	0707																																	
0709																											1			1			1	
0709	0710																																	
0710																											1			1			1	
0710	0712																																	
0711																											1							
0711	0710			40																														
0712																											1	0.1		1			1	
0712	0705																																	
0713																											1			1			1	
0713	0828																																	
0801																											1			1		1		
0801	0800																																	
0802																											1			1	1			
0802	0829																																	
0803																											1			1		1		
0803	0804		44																															
0805																											1			1			1	
0805	0806		44																															
0807																											1			1		1		
0807	0808		40																															
0809																											1							
0809	0826																																	
0810																											1			1			1	
0810	0830																																	
0812																											1			1		1		
0812	0826																																	
0815																											1			1	1			
0815	0814				52																													
0816																											1			1		1		
0816	0815																																	
0817																											1							
0817	0835																																	
0818																											1							
0818	0817																																	
0819																											1			1		1		
0819	0820																																	
0820																											1	1.1						
0820	0825																																	
0823																											1							
0823	0817																																	
0825																											1							
SHEET TOTALS			128	40	52																						25	2.2		17	2	8	7	

FROM	TO	CONCRETE TRANSITIONAL SECTION D.I. DETAIL 2C-10 OR 2C-14	CONCRETE TRANSITIONAL SECTION C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	CONCRETE BRIDGE APPROACH D.I. STD. 840.13	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 WITH GRATE STD. 840.20	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ 2 GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	DRIVEWAY D.I. STD. 840.30	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	M.H. FRAME AND COVER STD. 840.54	ADJUST MH	15" C.S. ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	30" C.S. ELBOW	36" C.S. ELBOW	48" C.S. ELBOW	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
0704	0708																																		
0705																																			
0705	0704																																		
0706						1	1																												
0706	0703																																		
0707																																			
0707	0810																																		
0708																																			
0708	0707																																		
0709																																			
0709	0710																																		
0710																																			
0710	0712																																		
0711						1	1																												
0711	0710																																		
0712																																			
0712	0705																																		
0713																																			
0713	0828																																		
0801																																			
0801	0800																																		
0802																																			
0802	0829																																		
0803																																			
0803	0804																								1										
0805																																			
0805	0806																								1										
0807																																			
0807	0808																								1										
0809						1	1																												
0809	0826																																		
0810																																			
0810	0830																																		
0812																																			
0812	0826																																		
0815																																			
0815	0814																										1								
0816																																			
0816	0815																																		
0817		1										1										1													
0817	0835																																		
0818		1										1										1													
0818	0817																																		
0819																																			
0819	0820																																		
0820		1										1										1													
0820	0825																																		
0823		1										1										1													
0823	0817																																		
0825																				1			1												
SHEET TOTALS		4				3	3					4								1		4	1		3		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