COMPUTED BY:	EGH	DATE:	10/24/2014
CHECKED BY:	SNM	DATE:	10/27/2014

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-2915A	3D-4

R0248621

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	LOCATION (LT, RT, OR CL)'	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	SLOPE CRITICAL %	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) SIZE 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
								THICKNESS OR GAUGE											
L 37+25	RT	516		2976.30															
		516	521		2972.79	2969.48													
L 37+25	RT	517		2986.00															
		517	516		2986.00	2973.54			24							X			
L 37+73	CL																		
L 39+50	LT	518		2980.42															
		518	520		2977.42	2970.02													
L 40+50	RT																		
L 41+35	RT																		
L 41+50	LT	520		2978.86															
		520	519		2968.77	2966.52													
L 41+50	RT	521		2972.98															
		521	520		2968.98	2968.77													
L 43+25	LT	601		2977.50															
		601	607		2967.77	2966.00													
L 45+00	LT	602		2976.00															
		602	608		2971.82	2966.61													
L 45+58	CL	603		2975.00															
		603	602		2972.00	2971.82	X												
L 46+17	CL	612	OUT		2967.38	2966.50													
L 46+50	LT	604		2974.65															
		604	609		2970.62	2966.30													
L 47+37	RT	605		2973.88															
		605	604		2970.88	2970.62	X												
L 48+28	RT																		
L 50+65	RT	614																	
L 50+65	RT	614	OUT		2971.80	2971.50				56									
L 51+27	RT	615																	
L 51+27	RT	615	606		2972.10	2967.67													
L 51+74	RT	606		2972.67															
L 43+43	RT																		
		611	601		2970.00	2967.87													
L 52+80	RT	616		2977.20															
		616	702		2974.00	2972.30													
L 45+71	LT	617	OUT		2961.92	2961.80													
L 54+50	RT	702		2980.43															
		702	701		2967.75	2967.00													
L 54+50	RT	703		2978.55															
		703	702		2975.60	2975.10													
L 54+50	RT	704		2981.75															
		704	703		2981.75	2975.80			16							X			
L 56+50	RT	705		2984.32															
		705	702		2978.60	2974.35													
L 56+50	RT	706		2983.03															
		706	705		2979.30	2978.80													
L 56+50	RT	707		2995.50															
		707	706		2992.50	2979.50					32					X			
L 56+57	CL																		
L 60+77	LT	713																	
L 60+77	LT	713	OUT		2982.50	2981.90			48										
						SHEET TOTAL			88	56	32								

LINE & STATION	C.S. PIPE SIZE 12	15	18	24	30	36	42	48	R.C. PIPE CLASS III SIZE 12	15	18	24	30	36	42	48	R.C. PIPE CLASS IV SIZE 12	15	18	24	30	36	42	48	** " R.C. PIPE (CLASS V)	15" RC PIPE CULVERTS, CONTRACTOR DESIGN	18" RC PIPE CULVERTS, CONTRACTOR DESIGN	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE
	THICKNESS OR GAUGE																												
L 37+25																													
												404																	
L 37+25																													
L 37+73																													
L 39+50																													
										200																			
L 40+50																													
L 41+35																													
L 41+50																													
													64																
L 41+50																													
													68																
L 43+25																													
												68																	
L 45+00																													
									108																				
L 45+58																													
									60																				
L 46+17												176																	
L 46+50																													
									56																				
L 47+37																													
									88																				
L 48+28																													
L 50+65																													
L 50+65																													
L 51+27																													
L 51+27											44																		
L 51+74																													
L 43+43																													
												80																	
L 52+80																													
									172																				
L 45+71													24																
L 54+50																													
												76																	
L 54+50																													
									52																				
L 54+50																													
L 56+50																													
												204																	
L 56+50																													
												48																	
L 56+50																													
L 56+57																													
L 60+77																													
L 60+77																													
SHEET TOTAL									736	44	1056	132	24																

LINE & STATION	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES *TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') PER EACH (0' THRU 5.0')	LIN.FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION DROP INLET STD. 852.04 OR 852.06	CATCH BASIN STD. 852.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH TWO GRATES STD. 840.20 WIDE/FLAT	G.D.I. FRAME WITH TWO GRATES STD. 840.22 WIDE/SAG	G.D.I. FRAME WITH TWO GRATES STD. 840.29 NARROW/FLAT	G.D.I. FRAME WITH TWO GRATES STD. 840.24 NARROW/SAG	J.B. STD. 840.31 OR 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	MANHOLE FRAME AND COVER STD. 840.54	BERM DRAINAGE OUTLET (BDO) STD. 850.10	BERM DRAINAGE OUTLET (BDO) STD. 850.11	CONCRETE MEDIAN DI TYPE-A, EXTRA DEPTH (SEE DETAIL 2C-7)	FLOWABLE FILL (C.Y.)	15" SIDE DRAIN PIPE ELBOWS	18" SIDE DRAIN PIPE ELBOWS NO. & SIZE	24" SIDE DRAIN PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PSH (PREFORMED SCOUR HOLE (QTY. EACH)	PIPE REMOVAL LIN. FT.	15" PIPE END SECTION	18" PIPE END SECTION	REMARKS
L 37+25			1											1					1				1															
L 37+25																														1									18" BERM DITCH OUTLET PIPE
																																	2						
L 37+73																																						40	REMOVE 18" RCP
L 39+50			1															1							1														TB 2GI
L 40+50																																						41	REMOVE 18" RCP
L 41+35																																						60	REMOVE 12" CMP
L 41+50			1	5.00	0.09													1							1													TB 2GI
L 41+50			1															1																					
L 43+25			1	4.73														1							1														TB 2GI
L 45+00			1							1		1	1																										
L 45+58			1							1		1	1																									43	REMOVE 18" RCP
L 46+17																																							
L 46+50			1							1		1	1																										
L 47+37			1							1		1	1																										
L 48+28																																2.86				0.13			PLUG 18" CMP
L 50+65																																							1
L 50+65																																							
L 51+27																																							1
L 51+27																																						51	REMOVE 18" CMP
L 51+74			1	3.67									1			1																					45	REMOVE 5' x 6' BARREL
L 43+43																																						100	REMOVE 15" RCP
L 52+80			1															1							1														TB 2GI
L 45+71		3.4																																					STD. 838.01
L 54+50			1	5.00	2.68													1												1								
L 54+50			1											1		1																							
L 54+50																											1												15" BERM DITCH OUTLET PIPE
																																	2						
L 56+50			1	0.72														1							1														TB 2GI
L 56+50			1											1		1																							
L 56+50																															1								24" BERM DITCH OUTLET PIPE
																																		2					
L 56+57																																						35	REMOVE 18" RCP
L 60+77																																							1
L 60+77																																							
SHEET TOTAL		3.4	15	19.1	2.8					4		4	4	3	2		6	5					5		2	1	1	2.9	2	2	2	0.130		415	1	2		

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX