COMPUTED BY: SLK DATE: 12/31/2013

CHECKED BY: GSP DATE: 12/31/2013

PROJECT NO.	SHEET NO.
U-3615B	3D-13

RAL-WS033

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)

STATION (SIZE / THICKNESS OR GAUGE)	LOCATION (LT, RT, OR CL)'	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	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	C.S. PIPE 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109
-L- 302+31	RT	274		871.5	868.33																						
-L- 302+45	RT	274	275		868.33	867.83			16																		
-L- 302+45	RT	275		870.83	867.83																						
-L- 302+60	RT	276		872.41	864.74																						
-L- 303+90	LT	179A		870.44	867.42																						
-L- 304+38	LT	179A	179B		867.42	865.64																					
-L- 304+38	LT	179B		870.23	865.64																						
-L- 304+40	LT	179		868.9	865.64																						
-L- 305+51	LT	179	278		865.64	861.13						108															
-L- 307+15	LT	279		865.9	862.48																						
-L- 305+51	LT	279	278		862.48	861.13				164																	
-L- 305+49	CL	278	279A		861.13	860.61																					
-L- 305+49	CL	278A			860.61																						
-L- 305+51	CL	278D			859.67																						
-L- 305+51	RT	278D	279D		859.67	859.3																					
-L- 305+54	CL	278	279B		861.13	860.62																					
-L- 305+54	CL	278B			860.62																						
-L-305+55	CL	278C			859.79																						
-L- 305+47	RT	278C	279C		859.79	859.3																					
-Y44- 12+95	LT	281A		872.97	896.97																						
-Y44- 12+95	RT	281A	281		869.97	869.86																					
-Y44- 12+95	RT	281		873.03	869.86																						
-Y44- 12+95	RT	281	280		869.86	868.23																					
-Y44- 12+95	RT	280		871.5	868.23																						
-Y44- 13+13	CL																										
-Y44- 13+39	CL																										
-L- 312+00	CL	188		875.15	872.15																						
-L- 312+00	RT	188	189		872.15	870.28																					
-L- 312+00	RT	189		873.28	870.28																						
-L- 313+50	RT	189	191		870.28	869.85																					
-L- 313+50	RT	191		873.77	869.6																						
-L- 314+20	RT	191	200		869.6	863.5				92																	
-L- 313+50	CL	190		876.88	873.88																						
-L- 313+50	RT	190	191		873.88	870.77																					
-L- 314+20	RT	201A																									
-L- 314+20	RT	201A	201B						36																		
SHEET TOTALS									52	256		108															

STATION	R.C. PIPE CLASS III 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV 12"	15"	18"	24"	30"	36"	42"	48"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	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 PER EACH (0' THRU 5.0')	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') 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
-L- 302+31																					1						
-L- 302+45																											
-L- 302+45																											
-L- 302+60																					1	2.2		1		1	
-L- 303+90																					1			1		1	
-L- 304+38										52																	
-L- 304+38																					1			1			1
-L- 304+40																					1			1	1		
-L- 305+51																											
-L- 307+15																					1						
-L- 305+51																											
-L- 305+49					28																						
-L- 305+49																											
-L- 305+51																											
-L- 305+51					76																						
-L- 305+54					28																						
-L- 305+54																											
-L-305+55																											
-L- 305+47					76																						
-Y44- 12+95																					1			1			1
-Y44- 12+95										40																	
-Y44- 12+95																					1			1		1	
-Y44- 12+95										12																	
-Y44- 12+95																					1						
-Y44- 13+13																											
-Y44- 13+39																											
-L- 312+00																					1			1			1
-L- 312+00										52																	
-L- 312+00																					1			1			1
-L- 313+50										144																	
-L- 313+50																					1			1			1
-L- 314+20																											
-L- 313+50																					1			1			1
-L- 313+50										52																	
-L- 314+20																			1								
-L- 314+20																											
SHEET TOTALS					208					352									1		13	2.2		10	1	3	6

STATION	CONCRETE TRANSITIONAL SECTION DROP INLET	CATCH BASIN	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. (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/ 2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	M.H. FRAME AND COVER STD. 840.54	GENEREC PIPE ITEM - REMOVE AND RESET FES	CONVERT EXISTING D.I. TO J.B.	ADJUST C.B.	15" SLUICE GATE	18" SLUICE GATE	24" SLUICE GATE	30" SLUICE GATE	MODIFIED CONCRETE FLUME	PREFORMED SCOUR HOLE	FLOWABLE FILL CY	CONC. & BRICK PIPE PLUG STD. 840.71 CY	CONC. COLLARS CL. "B" STD. 840.72 CY	PIPE REMOVAL LIN. FT.	REMARKS
-L- 302+31			1	1																						
-L- 302+45																										
-L- 302+45														1												SEE DETAIL SHEET 2C-9
-L- 302+60																									52	24" CONC
-L- 303+90																										
-L- 304+38																										
-L- 304+38																										
-L- 304+40																										REMOVE EXISTING CB AND REPLACE
-L- 305+51																									113	30" CONC
-L- 307+15			1	1																						
-L- 305+51																										
-L- 305+49																										
-L- 305+49																								0.656		
-L- 305+51																								0.656		
-L- 305+51																										
-L- 305+54																										
-L- 305+54																								0.656		
-L-305+55																								0.656		
-L- 305+47																										
-Y44- 12+95																										
-Y44- 12+95																										
-Y44- 12+95																										
-Y44- 12+95																										
-Y44- 12+95										1															18	18" CONC
-Y44- 13+13																							0.13			18" CONC, REMOVE 2-CB
-Y44- 13+39																							0.13			18" CONC
-L- 312+00		1																								
-L- 312+00																									26	12" CONC
-L- 312+00																										
-L- 313+50																										
-L- 313+50																										
-L- 314+20																										
-L- 313+50		1																							27	15" CONC
-L- 313+50																										
-L- 314+20																	1									
-L- 314+20																										
SHEET TOTALS		2	2	2						1				1			1						0.26	2.624	236	

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