COMPUTED BY: SLK DATE: 12/31/2013

CHECKED BY: GSP DATE: 12/31/2013

PROJECT NO.	SHEET NO.
U-3615B	3D-15

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
-L- 329+50	LT	210		869.62	866.62														
-L- 329+31	RT	210	211		866.62	866.37													
-L- 325+93	RT																		
-L- 328+36	LT	282		870.41	867.41														
-L- 329+00	LT	282	283		867.41	866.46													
-L- 329+00	LT	283		870.44	866.46														
-L- 328+54	RT	313		869.9	866.9														
-L- 328+78	RT	313	314		866.9	866.83													
-L- 328+78	RT	314		869.89	866.83														
-L- 329+21	RT	314	315		866.83	866.69			48										
-L- 331+08	LT	214		865.66	862.66														
-L- 331+00	RT	214	213		862.66	862.36													
-L- 331+00	RT	213		865.86	862.63														
-L- 332+50	RT	213	215		862.36	859.27													
-L- 332+50	LT	216		862.5	859.5														
-L- 332+50	RT	216	215		859.5	859.27													
-L- 332+50	RT	215		862.5	859.27														
-L- 334+00	RT	215	217		859.27	857.77													
-L- 334+00	LT	218		860.77	857.77														
-L- 334+00	RT	218	217		857.77	857.53													
-L- 334+00	RT	217		860.77	857.53														
-L- 335+45	RT	217	219		857.53	856.33													
-L- 335+45	RT	219		859.56	856.33														
-L- 336+09	RT	219	221		856.33	855.73													
-L- 336+09	RT	221		858.98	855.73														
-L- 336+22	RT	221	221B		855.73	853.93													
-L- 336+22	RT	221B		857.93	853.93														
-L- 335+45	LT	220		859.56	856.56														
-L- 336+28	LT	220	221A		856.56	855.07													
-L- 336+28	LT	221A		858.84	855.07														
-L- 336+81	LT	221A	222A		855.07	854.8													
-L- 336+81	LT	222A		858.26	849.38														
-L- 336+76	LT	222A	222B		849.38	848.96													
-L- 336+76	LT	222B		854.8	848.6														
-L- 337+60	LT	222		857.77	854.02														
-L- 336+81	LT	222	222A		854.02	853.59													
-L- 337+68	LT	222C		857.77	854.02														
-L- 336+81	LT	222C	222		854.02	854.02													
-L- 338+60	LT	224		858.48	855.23														
-L- 336+81	LT	224	222C		855.23	854.21													
SHEET TOTALS									48										

STATION	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"	36"	42"	48"	R.C. PIPE CLASS IV 12"	15"	18"	24"	30"	36"	42"	48"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE
-L- 329+50																										
-L- 329+31																		84								
-L- 325+93																										
-L- 328+36																										
-L- 329+00																		64								
-L- 329+00																										
-L- 328+54																										
-L- 328+78																		28								
-L- 328+78																										
-L- 329+21																										
-L- 331+08																										
-L- 331+00																		80								
-L- 331+00																										
-L- 332+50																		152								
-L- 332+50																										
-L- 332+50																		80								
-L- 332+50																										
-L- 334+00																		152								
-L- 334+00																										
-L- 334+00																		80								
-L- 334+00																										
-L- 335+45																		148								
-L- 335+45																										
-L- 336+09																		68								
-L- 336+09																										
-L- 336+22																		20								
-L- 336+22																										
-L- 335+45																										
-L- 336+28																		84								
-L- 336+28																										
-L- 336+81																			56							
-L- 336+81																										
-L- 336+76																							40			
-L- 336+76																										
-L- 337+60																										
-L- 336+81																				80						
-L- 337+68																										
-L- 336+81																				8						
-L- 338+60																										
-L- 336+81																			96							
SHEET TOTALS																		1040	152	88			40			

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 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	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
-L- 329+50			1			1			1																					
-L- 329+31																														
-L- 325+93																														
-L- 328+36			1			1	1																							
-L- 329+00																														
-L- 329+00			1			1	1																							
-L- 328+54			1			1	1																							
-L- 328+78																														
-L- 328+78			1			1	1																							
-L- 329+21																														
-L- 331+08			1			1			1																					
-L- 331+00																														
-L- 331+00			1			1		1																						
-L- 332+50																														
-L- 332+50			1			1			1																					
-L- 332+50																														
-L- 332+50			1			1		1																						
-L- 334+00																														
-L- 334+00			1			1			1																					
-L- 334+00																														
-L- 334+00			1			1		1																						
-L- 335+45																														
-L- 335+45			1			1		1																						
-L- 336+09																														
-L- 336+09			1			1		1																						
-L- 336+22																														
-L- 336+22			1			1	1																							
-L- 335+45			1			1			1																					
-L- 336+28																														
-L- 336+28			1			1			1																					
-L- 336+81																														
-L- 336+81			1	3.3																1	1									
-L- 336+76																														
-L- 336+76			1	0.6																1	1									
-L- 337+60			1			1	1																							
-L- 336+81																														
-L- 337+68			1			1	1																							
-L- 336+81																														
-L- 338+60			1			1		1																						
-L- 336+81																														
SHEET TOTALS			21	3.9		19	7	6	6											2	2									

STATION	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- 329+50					
-L- 329+31					
				184	12" CONC, REMOVE CB
-L- 325+93		0.045		52	15" CONC
-L- 328+36		0.045			REMOVE CB
-L- 329+00					
-L- 329+00		0.045			REMOVE CB
-L- 328+54		0.029			REMOVE CB
-L- 328+78					
-L- 328+78		0.029			REMOVE CB
-L- 329+21					
-L- 331+08					
-L- 331+00					
-L- 331+00					
-L- 332+50					
-L- 332+50					
-L- 332+50					
-L- 332+50					
-L- 334+00					
-L- 334+00					
-L- 334+00					
-L- 334+00					
-L- 335+45					
-L- 335+45					
-L- 336+09					
-L- 336+09					
-L- 336+22					
-L- 336+22					
-L- 335+45					
-L- 336+28					
-L- 336+28					
-L- 336+81					
-L- 336+81					
-L- 336+76					
-L- 336+76					
-L- 337+60					REMOVE CB
-L- 336+81					
-L- 337+68					
-L- 336+81					
-L- 338+60					
-L- 336+81					
SHEET TOTALS		0.193		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