RD248621

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-1

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) 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 (0.064)	15 (0.064)	18 (0.064)	24 (0.064)	30 (0.079)	36 (0.079)	42 (0.109)	48 (0.109)
Y1 27+22	RT	418		2989.73																							
		418	419		2982.69	2982.47																					
Y1 27+22	LT	419		2989.73																							
Y1 28+22	RT	435		2989.95																							
		435	436		2987.20	2987.10																					
Y1 28+22	LT	436		2989.95																							
		436	419		2987.10	2982.47																					
Y1 33+30	RT	437		3001.50																							
		437	438		2991.80	2991.73																					
Y1 33+30	LT	438		2999.76																							
Y1 33+29	LT	439		3000.04																							
		439	409		2991.18	2990.20																					
Y1 34+44	RT	440		3006.08																							
		440	441		3001.43	3001.33																					
Y1 34+44	LT	441		3004.08																							
		441	438		3001.33	2991.73																					
Y1 38+67	LT																										
Y1 38+97	LT																										
Y1 38+97	LT																										
Y1 39+05	RT	442		3023.56																							
Y1 39+05	LT	443		3022.02																							
		443	442		3011.65	3011.55																					
SR2 23+87	LT	470	OUT						36																		
LPC 08+30	LT	406		2989.12																							
		406	445		2984.94	2984.64			28																		
LPC 08+50	RT	407		2987.50																							
		407	406		2985.58	2984.94																					
RPC 7+44	RT	467		2986.51																							
		467	468		2984.59	2983.18																					
RPC 09+45	LT	401		2991.99																							
		401	407		2989.24	2985.58																					
RPC 10+73	LT	400		2997.84																							
		400	401		2995.09	2989.24																					
LPC 12+39	CL	458	OUT		2992.40	2986.70																					
LPC 13+93	LT	402		3011.38																							
		402	446		3008.63	2988.94			52																		
RPC 14+45	LT	403		3014.38																							
		403	402		3011.63	3008.63																					
LPC 17+40	CL	457	OUT		2999.00	2996.50																					
RPC 18+45	RT	405		3027.90																							
		405	404		3024.90	3024.36																					
LPC 17+65	LT	404		3027.95																							
		404	447		3024.36	2995.57			52																		
L 10+39	LT																										
L 10+39	LT																										
L 12+00	RT	410		3000.00																							
		410	409		2992.80	2989.00																					
L 12+84	LT	409		2998.00																							
L 12+43	CL																										
SR2 19+45	LT	469	OUT		3011.69	3011.37			64																		
SHEET TOTAL									232																		

LINE & STATION	LOCATION	FROM	TO	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	** " 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	ENDWALLS STD. 838.01, 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	C.S.P.
Y1 27+22	RT	418																								
		418	419		8																					
Y1 27+22	LT	419																								
Y1 28+22	RT	435																								
		435	436		8																					
Y1 28+22	LT	436																								
		436	419		100																					
Y1 33+30	RT	437																								
		437	438			8																				
Y1 33+30	LT	438																								
Y1 33+29	LT	439																								
		439	409			116																				
Y1 34+44	RT	440																								
		440	441		8																					
Y1 34+44	LT	441																								
		441	438		116																					
Y1 38+67	LT																									
Y1 38+97	LT																									
Y1 38+97	LT																									
Y1 39+05	RT	442																								
Y1 39+05	LT	443																								
		443	442		8																					
SR2 23+87	LT	470	OUT																							
LPC 08+30	LT	406																								
		406	445																							
LPC 08+50	RT	407																								
		407	406		56																					
RPC 7+44	RT	467																								
		467	468		160																					
RPC 09+45	LT	401																								
		401	407		104																					
RPC 10+73	LT	400																								
		400	401		124																					
LPC 12+39	CL	458	OUT			172																				
LPC 13+93	LT	402																								
		402	446																							
RPC 14+45	LT	403																								
		403	402		36																					
LPC 17+40	CL	457	OUT											180												
RPC 18+45	RT	405																								
		405	404		56																					
LPC 17+65	LT	404																								
		404	447																							
L 10+39	LT																									
L 10+39	LT																									
L 12+00	RT	410																								
		410	409								192															
L 12+84	LT	409																								
L 12+43	CL																									
SR2 19+45	LT	469	OUT																							
SHEET TOTAL					784	296					192			180												

LINE & STATION	LOCATION	FROM	TO	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'	LIN.FT. 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
Y1 27+22	RT	418		1	2.04											1		1			
		418	419																		
Y1 27+22	LT	419		1	2.26											1		1			
Y1 28+22	RT	435		1												1		1			
		435	436																		
Y1 28+22	LT	436		1												1		1			
		436	419																		
Y1 33+30	RT	437		1	4.70											1		1			
		437	438																		
Y1 33+30	LT	438		1	3.03											1		1			
Y1 33+29	LT	439		1	3.80																
		439	409																		
Y1 34+44	RT	440		1												1		1			
		440	441																		
Y1 34+44	LT	441		1												1		1			
		441	438																		
Y1 38+67	LT																				
Y1 38+97	LT																				
Y1 38+97	LT																				
Y1 39+05	RT	442		1	5.00	1.91										1		1			
Y1 39+05	LT	443		1	5.00	0.37										1		1			
		443	442																		
SR2 23+87	LT	470	OUT																		
LPC 08+30	LT	406		1			1	1													
		406	445																		
LPC 08+50	RT	407		1												1			1		
		407	406																		
RPC 7+44	RT	467		1													1	1			
		467	468																		
RPC 09+45	LT	401		1							1		1	1							
		401	407																		
RPC 10+73	LT	400		1							1		1	1							
		400	401																		
LPC 12+39	CL	458	OUT																		
LPC 13+93	LT	402		1			1		1												
		402	446																		
RPC 14+45	LT	403		1							1		1	1							
		403	402																		
LPC 17+40	CL	457	OUT																		
RPC 18+45	RT	405		1												1		1			
		405	404																		
LPC 17+65	LT	404		1												1		1			
		404	447																		
L 10+39	LT																				
L 10+39	LT																				
L 12+00	RT	410		1	2.20										1				1		
		410	409																		
L 12+84	LT	409		1	5.00	2.50									1				1		
L 12+43	CL																				
SR2 19+45	LT	469	OUT																		
SHEET TOTAL				22	33.0	4.8	2	1	1		3		3	3	2	13	1	13	3		

LINE & STATION	LOCATION	FROM	TO	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
Y1 27+22	RT	418																		
		418	419																	
Y1 27+22	LT	419																		
Y1 28+22	RT	435																		
		435	436																	
Y1 28+22	LT	436																		
		436	419																	
Y1 33+30	RT	437									4.28				0.090					REMOVE DI & PLUG 15" RCP W/ FLOWABLE FILL
		437	438																	
Y1 33+30	LT	438																		
Y1 33+29	LT	439		1			1													
		439	409																	
Y1 34+44	RT	440																		
		440	441																	
Y1 34+44	LT	441																		
		441	438																	
Y1 38+67	LT														0.065					REMOVE DI & PLUG 18" RCP
Y1 38+97	LT														0.065					REMOVE DI & PLUG 18" RCP
Y1 38+97	LT										5.33									FILL 18" RCP W/ FLOWABLE FILL
Y1 39+05	RT	442																		
Y1 39+05	LT	443																		
		443	442																	
SR2 23+87	LT	470	OUT																	
LPC 08+30	LT	406																		
		406	445																	
LPC 08+50	RT	407																		
		407	406																	
RPC 7+44	RT	467																		
		467	468																	
RPC 09+45	LT	401																		
		401	407																	
RPC 10+73	LT	400																		
		400	401																	
LPC 12+39	CL	458	OUT																	
LPC 13+93	LT	402																		
		402	446									2								
RPC 14+45	LT	403																		
		403	402																	
LPC 17+40	CL	457	OUT																	
RPC 18+45	RT	405															22			REMOVE 36" CMP
		405	404																	
LPC 17+65	LT	404																		
		404	447									2								
L 10+39	LT														0.090					
L 10+39	LT										4.10									
L 12+00	RT	410																		
		410	409																	
L 12+84	LT	409																		
L 12+43	CL																65			REMOVE PART OF 18" RCP
SR2 19+45	LT	469	OUT																	
SHEET TOTAL				1			1				13.7	4			0.310		87			

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