COMPUTED BY: KCBE DATE: 6/29/2016

CHECKED BY: RAM DATE: 9/6/2016

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-3100A	3D-1

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

STATION	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) 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	C.S. PIPE THICKNESS OR GAUGE .064	.064	.064	.064	.079	.079	.109	.109	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"
L 14+05	RT	401		988.5																																							
		401	402		985.9	985.5																																	120				
L 14+05	LT	402		992.7																																							
		402	403		990.4	990.7																														36							
L 14+38	RT	403		993.9																																							
		402	404		985.5	985.3																																	80				
L 14+43	LT	405																																									
L 16+81	LT	406																																									
L 18+25	RT	407																																									
L 21+79	LT	408																																									
L 22+34	RT	409																																									
L 25+78	RT	501																																									
L 26+83	RT	502																																									
L 27+09	LT	503		1015.2																																							
		503	504		1012	1011.9																														20							
L 27+23	RT	504		1015.1																																							
		504	505		1011.9	1007.2																														64							
L 27+50	LT	506			1010.3	1009.1																																	80				
Y16 12+35	RT																																										
L 33+10	LT	509		1005.5																																							
		509	510		1002.6	1001.6			60																																		
L 33+67	LT	510		1004.5																																							
		510	511		1001.6	992.9			32							X																											
L 34+54	RT	512		1003																																							
		512	513		1000	999.2			56																																		
L 35+10	RT	513		1002.1																																							
		513	514		999.2	993.4			24							X																											
L 38+47	RT	601		997.4																																							
		601	602		994.3	993.2																														56							
L 41+79	RT	603		992.2																																							
		603	604		989	987.8																														60							
L 42+53	RT	605			985.5	981.2																																	140				
L 44+50	LT	606																																									
L 45+80	LT	607		975.8																																							
		607	608		972.7	964.7			104																																		
L 47+21	LT	609		983.9																																							
		609	610		981	980.9																														40							
L 47+21	LT	610		984.7																																							
		610	611		980.9	980.8																														48							
L 47+21	RT	611		983.9																																							
		611	612		980.8	980.3			164																																		
SHEET TOTALS									440																											324	80	340				

STATION	"*" R.C. PIPE (CLASS V)	"**" RC PIPE CULVERTS, CONTRACTOR DESIGN	"***" 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) R.C.P.	ENDWALLS CU. YARDS C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES 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. 852.06	
L 14+05								1								
					120											
L 14+05								1	2.2						1	
L 14+38								1							1	
					80											
L 14+43					20											
L 16+81				24												
L 18+25					24											
L 21+79				24												
L 22+34				24												
L 25+78				20												
L 26+83				20												
L 27+09								1							1	
L 27+23								1							1	
L 27+50																
Y16 12+35																
L 33+10								1								
L 33+67								1								
L 34+54								1								
L 35+10								1								
L 38+47								1							1	
L 41+79								1							1	
L 42+53																
L 44+50																
L 45+80								1								
L 47+21								1								
L 47+21								1							1	
L 47+21								1								
SHEET TOTALS				112	44			15	2.2						7	

STATION	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME WITH TWO GRATES 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. (W.S. FLAT) FRAME WITH TWO GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME WITH TWO GRATES STD. 840.22	G.D.I. (W.S. SAG) FRAME WITH GRATE STD. 840.22	G.D.I. (N.S. FLAT) FRAME WITH TWO GRATES STD. 840.29	OPEN THROAT C.B. STD. 840.04 OR STA. 840.05	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	J.B. STD. 840.31 OR 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	G.D.I. (N.S. SAG) FRAME WITH TWO GRATES STD. 840.24	BERM DRAINAGE OUTLET STD. 850.10	CONC. TRANSTIONAL SECTION FOR DI (EA) [SEE DETAIL 2C-2]	CONVERT EXISTING D.I. TO J.B. WITH M.H.	PARALLEL PIPE END SECTION STD. 310.02 15"	18"	24"	C.S. ELBOWS 15"	18"	24"	PREFORMED SCOUR HOLE	FLOWABLE FILL	CONC. AND BRICK PIPE PLUG (C.Y.) STD. 840.71	PIPE REMOVAL LIN. FT.	REMARKS
L 14+05																															
L 14+05	1	1																													
L 14+38	1	1																													
																													56		
L 14+43																			1										20		
L 16+81																		1											16		
L 18+25																			1										56		
L 21+79																		1											24		
L 22+34																		1											20		
L 25+78																		1											40		
L 26+83																		1											16		
L 27+09	1	1																													
L 27+23	1	1																													
L 27+50																													64		
Y16 12+35																													24		
L 33+10				1		1																									
L 33+67				1		1																									
L 34+54				1		1																									
L 35+10				1		1																									
																												1			
L 38+47	1	1																													
L 41+79	1	1																													
L 42+53																															
L 44+50																															
L 45+80				1		1																									
L 47+21				1		1																									
L 47+21	1	1																													
L 47+21				1		1																									
SHEET TOTALS	7	7	7	8		6	2												5	2					1				584		

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