COMPUTED BY: CGM DATE: 3/06/14

CHECKED BY: JRR DATE:

RAL-2UA2440BPJ

PROJECT NO.	SHEET NO.
U-2579B	3D-19

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)

Line & Station (Size / Thickness or Gauge)	Offset	Structure Number From	Structure Number To	Top Elevation (ft.)	Invert Elevation (ft.)	Invert Elevation (ft.)	Minimum Required Slope (%)	Side Drain Pipe (Statewide Tier) (RCP, CSP, CAAP, HDPE, or PVC) 15	18	24	30	36	42	48	Do Not Use RCP
-Y4RPBD- 70+00	RT	0381		901.5	898.7										
		0381	0380		898.7	898.4									
-Y4RPBD- 70+00	LT	0380		901.7	898.2										
		0380	OUT		898.2	886.0			84						X
-Y4RPBD- 77+14	RT	382A		873.3	870.5										
		382A	OUT		870.5	863.5		36							X
-Y4- 71+34	CL	0382		874.6	EX										
-Y4- 71+33	RT	0383				858.8			44						X
-Y4- 73+56	LT	384A	0384		864.0	EX					24				
-Y4- 73+23	LT	0384		EX											
-Y4RPA- 37+31	LT	0385	OUT		EX	851.2					68				
-Y4- 75+50	LT	0386	OUT	881.4	878.4	877.2			56						
-Y4- 81+50	CL	0387		890.3	887.5										
		0387	0388		887.5	881.0		516							
-Y4- 76+35	CL	0388		883.8	EX										
-Y4- 76+21	RT	0389		884.3	878.6										
		0389	0390		878.6	873.0			36						
-Y4- 77+28	RT	0391		883.4	880.4										
		0391	0390		880.4	873.0			116						
-Y4- 76+15	RT	0390		876.0	872.5										
		0390	OUT		872.5	870.8									
-Y4- 99+18	LT	244A		898.5	895.7										
		244A	0244		895.7	887.8		320							
-Y4- 102+07	LT	0244		890.5	887.8										
		0244	0245		887.8	882.9									
-Y4- 103+19	LT	0245		885.7	882.7										
		0245	0246		882.7	877.9									
-Y4- 103+65	LT	0246		882.1	877.4										
		0246	0394		877.4	876.5	X				160				
-Y4- 105+25	CL	0393		882.1	879.1										
		0393	0394		879.1	877.0									
-Y4- 105+25	LT	0394		881.3	876.5										
		0394	OUT		876.5	874.0									
-Y4- 110+11	CL	0392		886.6	EX										
		0392	0393		EX	879.1			488						
-Y4- 114+88	CL	392A		891.2	EX										
-Y4- 104+35	CL	0395		882.6	EX										
-Y4- 100+33	CL	395A		885.6	EX										
-Y4- 104+58	RT	0396		883.6	EX										
-Y4- 104+25	RT	0398		880.6	877.9										
		0398	0397		877.9	873.6		60							
							SHEET TOTALS	932	824		252				

Line & Station	From	To	C.S. Pipe (SE: Shop Elongated) 15 (.064)	18 (.064)	24 (.064)	30 (.064)	36 (.079)	42 (.109)	R.C. Pipe Class III 15	18	24	30	36	42	48	R.C. Pipe Class IV 15	18	24	30	42	48	R.C. Pipe Class V 24	30	36	8" DIP (Ductile Iron Pipe)	42" R.C. Pipe Culverts, Contractor Design	48" R.C. Pipe Culverts, Contractor Design	36" R.C. Pipe Culverts, Contractor Design	18" R.C. Pipe Culverts, Contractor Design	30" Welded Steel Pipe, 0.500, Trencless Installation	36" Welded Steel Pipe, 0.500, Trencless Installation	42" Welded Steel Pipe, 0.625, Trencless Installation	48" Welded Steel Pipe, 0.625, Trencless Installation	Endwalls Std. 838.01 or Std. 838.11 or 838.80 (Unless Noted Otherwise) (CY)
	0381	0380							92																									
-Y4- 73+56	384A	0384																																2.000
	0390	OUT									112																							
	0244	0245							124																									
	0245	0246								112																								
	0393	0394								72																								
	0394	OUT										84																						
SHEET TOTALS									216	184	112	84																						2.000

Line & Station	From	To	Quantities for Drainage Structures (Note: Total Lin. Ft. for Pay Quantity shall be A + (1.3 X B)) 0' thru 5' (Each)	5' thru 10' A (Lin. Ft.)	10' and above B (Lin. Ft.)	C.B. Std. 840.01 or Std. 840.02	Frame, Grates, and Hood Std. 840.03 Grate Type E	F	G	D.I. Std. 852.04 or Std. 852.06 (Concrete Transitional Section)	C.B. Std. 852.05	Open Throat C.B. Std. 840.04 or Std. 840.05	D.I. Std. 840.14 or Std. 840.15	D.I. Frame and Grates Std. 840.16	G.D.I. Type "A" Std. 840.17 or Std. 840.26	G.D.I. Type "B" Std. 840.18 or Std. 840.27	G.D.I. (W.S. Flat) Frame w/ 2 Grates Std. 840.20	G.D.I. (W.S. Sag) Frame w/ Grate Std. 840.22	G.D.I. (W.S. Sag) Frame w/ 2 Grates Std. 840.22	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.D.I. Std. 840.36	Steel Grate and Frame Std. 840.37	Spring Box Std. 840.41	M.H. Frame and Cover Std. 840.54	Convert Existing C.B. to J.B.	Convert Existing O.T.C.B. to 2GI
-Y4RPBD- 70+00	0381		1													1			1									
-Y4RPBD- 70+00	0380		1													1			1									
-Y4RPBD- 77+14	382A		1													1	1											
-Y4- 71+34	0382																		1									1
-Y4- 75+50	0386	OUT	1													1			1									
-Y4- 81+50	0387		1													1			1									
-Y4- 76+35	0388		1													1			1									
-Y4- 76+21	0389		1	0.7																		1				1		
-Y4- 77+28	0391		1													1			1									
-Y4- 76+15	0390		1													1			1									
-Y4- 99+18	244A		1													1			1									
-Y4- 102+07	0244		1													1			1									
-Y4- 103+19	0245		1													1			1									
-Y4- 103+65	0246		1												1				1									
-Y4- 105+25	0393		1													1			1									
-Y4- 105+25	0394		1												1				1									
-Y4- 110+11	0392		1													1			1									
-Y4- 114+88	392A																		1									1
-Y4- 104+35	0395																		1									1
-Y4- 100+33	395A																		1									1
-Y4- 104+58	0396																									1	1	
-Y4- 104+25	0398		1													1			1									
SHEET TOTALS			17	0.7											2	14	1		19			1				2	1	4

Line & Station	From	To	15" Side Drain Pipe Elbow	18" Side Drain Pipe Elbow	24" Side Drain Pipe Elbow	30" Side Drain Pipe Elbow	36" Side Drain Pipe Elbow	15" C.S. Pipe Elbow	18" C.S. Pipe Elbow	24" C.S. Pipe Elbow	42" C.S. Pipe Elbow	Berm Ditch Outlet Std. 850.10	Modified Conc. Flume	Preformed Scour Hole (Per Each)	Energy Dissipation Basin	Flowable Fill (CY)	Concrete Collars Cl. "B" Std. 840.72 (CY)	Concrete and Brick Pipe Plug Std. 840.71 (CY)	Pipe Removal (Lin. Ft.)	Remarks
	0380	OUT		2																
	382A	OUT	2																	
-Y4- 71+34	0382																			Special Detail, See Sheet 2D-4
-Y4- 71+33	0383																0.4470			
-Y4- 73+23	0384																0.6600			
-Y4RPA- 37+31	0385	OUT															0.6600			
-Y4- 105+25	0394																	0.360		(2 X 0.18)
-Y4- 110+11	0392																	0.130		(2 X 0.065)
-Y4- 114+88	392A																	0.130		(2 X 0.065) Special Detail, See Sheet 2D-4
-Y4- 104+35	0395																			Special Detail, See Sheet 2D-4
-Y4- 100+33	395A																	0.130		(2 X 0.065) Special Detail, See Sheet 2D-4
-Y4- 104+58	0396																			Special Detail, See Sheet 2D-3
	0398	0397																	22	
SHEET TOTALS			2	2													1.7670	0.750	22	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY POLYETHYLENE
J.B.	JUNCTION BOX
M.H.	MANHOLE
N.S.	NARROW SLOT
P.V.C.	POLYVINYL CHLORIDE
R.C.	REINFORCED CONCRETE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX
W.S.	WIDE SLOT